PUBLIC REVIEW DRAFT | DECEMBER 2016

Mammoth Creek Park West New Community Multi-Use Facilities

ENVIRONMENTAL IMPACT REPORT

PREPARED FOR:

Town of Mammoth Lakes

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PUBLIC REVIEW DRAFT
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Mammoth Creek Park West
New Community Multi-Use Facilities

SCH NO. 2016062009

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1.0 EXECUTIVE SUMMARY

1.1 PROJECT LOCATION

The proposed Mammoth Creek Park West New Community Multi-Use Facilities Project (project) is located within the Town of Mammoth Lakes (Town), in the southwest portion of Mono County, on the eastern side of the Sierra Nevada mountain range. The project site is located at Mammoth Creek Park West (686 Old Mammoth Road) and is comprised of Assessor's Parcel Numbers (APNs) 040-140-001-000 and 040-140-002-000. The project site is approximately 4.9 acres and is bounded by multi-family residential uses and commercial uses to the north, Old Mammoth Road to the east, recreational open space to the south, and multi-family residential uses to the west. Vehicular access to the site is provided via Old Mammoth Road, and pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site. The primary local roadway providing access to the project site is Old Mammoth Road.

The Town's existing community center (1000 Forest Trail) and Mammoth Ice Rink (416 Sierra Park Road) are located approximately 1.38 miles to the northwest, and 0.30-mile to the northeast of the project site, respectively. The operations of the existing community center would continue. However, the winter and summer operations of the Multi-Use Facility (Mammoth Ice Rink/Mammoth RecZone) would be relocated to the project site.

1.2 PROJECT SUMMARY

The project site is comprised of Mammoth Creek Park West. Mammoth Creek Park West currently includes playground equipment, grass/open space, picnic areas, trail connections, and a surface parking lot for 44 vehicles. Based on the *Town of Mammoth Lakes General Plan 2007* (General Plan) Land Use Map, the project site is designated Open Space (OS). Based on the Town's Zoning Map, the project site is zoned Public and Quasi Public (P-QP).

The project consists of constructing new community multi-use facilities at the project site, encompassing a maximum 100-foot by 200-foot ice rink (winter)/recreation/event area (RecZone) covered by an approximately 30,000 square feet roof structure and additional storage and support space. In addition, the proposed project includes a 13,000 square-foot complementary community center, reconfiguration and improvements to an existing playground to add accessible interactive components, restroom improvements, and 107 additional surface parking spaces. The project would also include an active outdoor recreation area to the west of the new community multi-use facilities. Upon project completion, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation. The proposed project components are described in more detail below.

The proposed 13,000 square-foot complementary community center would include:

- A maximum of two large rooms (1,500 to 3,000 square feet) adjacent to the multi-use facility;
- An approximately 200 to 400 square-foot warming kitchen with concession space;
- An approximately 400 square feet of office space;

- An approximately 500 to 600 square-foot arts/crafts/play room;
- An approximately 300 to 400 square-foot meeting room;
- An approximately 600 to 800 square-foot multi-purpose room;
- Two to four locker rooms (approximately 400 square feet each);
- Americans with Disabilities Act (ADA) accessible restrooms;
- An approximately 400 to 600 square-foot storage room;
- A mechanical room (including storage, cleaning supplies, phone, electrical, internet, etc.); and
- Twenty to 40 wall lockers.

The community center would host a number of daily, weekly, monthly, and occasional community-based activities. The community center is an open facility for daily social interaction, frequently programmed community events with complementary space/amenities to support operations of the ice rink and Mammoth RecZone. Weekly scheduled programs include educational programs; adult and youth introductory fitness classes (e.g., dance, Zumba, gymnastics/tumbling, yoga); games (e.g., table tennis, foosball, air hockey); arts and crafts programs/camps; training/certification courses (e.g., first-aid training); family support groups; and seasonal theatre productions and rehearsal space. Monthly programs or special events include drop-in art programs; Technology, Entertainment, Design (TED) Talks; community and social holiday celebrations; fairs/festivals; rotating art gallery; and community variety/talent shows. The community center also schedules occasional activities and events such as facility rentals for small events/conferences, movie nights, and an after-dance teen hangout space. Community center operations would generally run between 6:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 10:00 p.m. to 12:00 a.m.

The proposed ice rink would be open on two sides (to the south and east), oriented in an east-west direction, and would be up to 100-feet long by 200-feet wide. Viewing areas and bleachers would be included under the proposed roof structure. Areas for the ice preparation machine, chillers and storage of ice rink and RecZone equipment would be provided along the west boundary of the ice rink/RecZone. Space for skate rental, concessions and/or vending machines, ADA accessible restrooms, and lockers for personal items would be included in the adjacent community center building. The ice rink would operate during the winter months (November to April), and would provide a number of daily, weekly, and monthly recreational activities. Daily or frequently programmed activities include recreational skating, youth and adult hockey, as well as programs for ice skating and figure skating. The ice rink would also host or schedule weekly programs including curling and skate programs, ice rentals for hockey, and birthday parties. Monthly programs or special events include community events, hockey tournaments, special programs/events, private facility rentals, and professional/club/college/school rentals and events. Ice rink operations would generally run between 9:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 6:00 a.m. to 9:00 a.m. or 10:00 p.m. to 12:00 a.m.

In the summer months (mid-May to mid-October) the multi-use facility would operate as the summer Mammoth RecZone. The Mammoth RecZone would be the home of Parks and Recreation Department summer camps and programs. The facility would offer daily and weekly programs, host monthly programs, and provide a venue for special events. Frequent youth and adult programmed court sports would be held at the facility including:

- Drop-in and league play for basketball, badminton, pickleball, small-sided soccer (futsal), volleyball, street hockey, dodgeball, and kickball;
- Adaptive sports (wheelchair basketball, pickleball, etc.);

- Summer sports camps (basketball, volleyball, soccer);
- Roller/inline skating; and
- Tennis.

Weekly programs scheduled at the facility include community area for sports teams and events, professional/club/college/school rentals, birthday parties, climbing wall, indoor cricket, and handball. Community events such as farmers market, art and music festivals, movie nights, holiday events, and special events. Special events may include, but are not limited to weddings, trade shows, birthday parties, small carnivals, and other private events.

Auxiliary equipment (i.e., sport court flooring, wind screens, scoreboards, athletic equipment, tables, chairs, etc.) would be required to operate the Mammoth RecZone. Mammoth RecZone operations would generally run between 6:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 10:00 p.m. to 12:00 a.m. The open area south of the Mammoth RecZone may also be used occasionally for access and seating for events.

On occasion, special events may be hosted at the project site. Alcohol would be permitted to be served at special events with an Administrative Special Event Permit. Under this permit, additional security or other necessary measures (such as parking management plan) would be imposed on the event as part of the permit. No other sales of alcohol would occur and no additional infrastructure (i.e., outdoor lighting, etc.) would be installed for such special events.

The square footage of the existing playground on the project site would remain the same. However, some elements of the existing playground may be moved or new integrated and interactive features may be added. These playground elements include freestanding play, horizontal ladders/upper body peddlers, rubberized surfacing, adaptive swings, communication skills, sensory walls, and story circles. In addition, the existing bathroom at the Mammoth Creek Park West would be updated for year round use and to comply with ADA standards. The existing rock garden in the southeast portion of the project site would remain unchanged.

The area to the west of the proposed structures would be used as an active outdoor recreation area. Possible activities for this portion of the project site include a dog park, a BMX bicycle dirt track (during summer months), sledding hill (during winter months), and/or a community garden.

The existing surface parking lot in the northeast portion of the project site would be expanded westward across the northern portion of the project site, and would provide 107 additional parking spaces (for a total of 151 parking spaces to be provided on-site).

The existing park grass within the southeastern portion of the project site would remain. In addition, the project proposes drought-tolerant landscaping to reduce water consumption on-site.

The proposed project would connect to existing utility (water and sewer) connections along Old Mammoth Road and within the project site. Sewer is available in Old Mammoth Road. Water is available on site by way of a water main that currently extends along the north and west boundaries. The Mammoth Lakes Fire Department would also utilize a proposed fire access road at Meadow Lane. This access point would be secured and limited to emergency access and periodic maintenance activities.

1.3 PROJECT GOALS/OBJECTIVES

Pursuant to Section 15124(b) of the *CEQA Guidelines*, the EIR project description must include "[a] statement of objectives sought by the proposed project….The statement of objectives should include the underlying purpose of the project."

The Town of Mammoth Lakes parks and recreation vision is to provide multipurpose year-round, indoor and outdoor recreation opportunities accessible to all residents and visitors. Our parks and recreation system will promote personal health and well-being, foster community interaction, promote connectivity within and beyond the Town, nurture collaborative partnerships, and encourage appreciation of the Town's spectacular environment.

The Town's goals and objectives for the project are based on applicable Parks and Recreation Master Plan and the Parks, Open Space, and Recreation Element goals, policies, and tasks, as follows:

- *Goal 1:* Maintain parks and open space within and adjacent to Town for outdoor recreation and contemplation.

- *Goal 2:* Provide additional parks in Town.

- *Goal 4:* Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.

- *Goal 5:* Link parks and open space with a well-designed, year-round network of public corridors and trails within and surrounding Mammoth Lakes.

- *Goal 6:* Provide parks and recreational facilities and programs that foster a sense of community and nurture the emotional connection people have with each other and Mammoth Lakes.

- *Tasks:* To meet the recreation needs of residents and visitors into the future, the Town of Mammoth Lakes will need to increase the maintenance level of existing parks and recreation facilities, upgrade existing parks, add more usable park acreage, and develop additional facilities to address unmet recreation needs. More specifically, the Town should:

    - Design additional park improvements and recreation facilities to meet recreation needs in all seasons. These facilities include (in alphabetical order):

        - Aquatic center;
        - Dog park;
        - Event and performance venues;
        - Picnic areas;
        - Multi-use recreational/cultural facility;
        - Snow and winter play areas; and
        - Sports fields and courts.

Recreational Opportunities

P.4. Goal: Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.

P.4.B. Policy: Provide an affordable and wide range of year-round recreational opportunities to foster a healthy community for residents and visitors. Activities include but are not limited to:[1]

- Ice skating;
- Snow play;
- Walking;
- Fall-color viewing;
- Birding;
- Health & fitness; and
- BMX.

Connected Throughout

P.5. Goal: Link parks and open space with a well-designed year-round network of public corridors and trails within and surrounding Mammoth Lakes.

P.5.E. Policy: Design parks and open space to be accessible and usable except when set aside for preservation of natural resources, health and safety.

P.5.G. Policy: Identify, zone and procure land for new and expanded parklands including:[2]

- Community gardens;
- Streamside parks;
- Active parks;
- Open space;
- Snow play;
- Festival and special events areas; and
- Passive parks.

In order to meet the Task for Goal 6 identified above, the Town set a goal to provide a roof over the Town-operated ice rink/RecZone, thereby extending the winter seasonal use and enhancing the summer seasonal uses. It is also the intent of the Town's Council to provide complementary facilities at the Town's ice rink/RecZone.

[1] P.4.B. Policy lists 29 activities. Those listed are contemplated for this project.
[2] P.5.G. Policy lists 11 activities. Those listed are contemplated for this project.

1.4 ENVIRONMENTAL ISSUES/ MITIGATION SUMMARY

The following summarizes the impacts, mitigation measures, and unavoidable significant impacts identified and analyzed in Section 5.0, *Environmental Analysis*, of this EIR. Refer to the appropriate EIR Section for detailed information.

Impact Statement	Mitigation Measure	Significance After Mitigation
5.1 Land Use and Relevant Planning		
Town of Mammoth Lakes General Plan LU-1 The proposed project would not conflict with General Plan policies or regulations.	No mitigation measures are required.	Less Than Significant Impact.
Town of Mammoth Lakes Municipal Code LU-2 The proposed project would not conflict with the Town of Mammoth Lakes Municipal Code standards or regulations.	No mitigation measures are required.	Less Than Significant Impact.
Town of Mammoth Lakes Parks and Recreation Master Plan LU-3 The proposed project would not conflict with the Town of Mammoth Lakes Parks and Recreation Master Plan policies and standards.	No mitigation measures are required.	Less Than Significant Impact.
Cumulative Impacts *Town of Mammoth Lakes General Plan* • The proposed project would not conflict with the Town of Mammoth Lakes General Plan policies and regulations.	No mitigation measures are required.	Less Than Significant Impact.
Town of Mammoth Lakes Municipal Code • The proposed project would not conflict with the Town of Mammoth Lakes Municipal Code standards or regulations.	No mitigation measures are required.	Less Than Significant Impact.
Town of Mammoth Lakes Parks and Recreation Master Plan • The proposed project would not conflict with the Town of Mammoth Lakes Parks And Recreation Master Plan.	No mitigation measures are required.	No Impact.
5.2 Aesthetics/Light And Glare		
Short-Term Visual Impacts AES-1 Project grading and construction activities would not substantially degrade the visual character/quality of the site or its surroundings.	**AES-1** Construction equipment staging areas shall be screened (i.e., temporary fencing with opaque material) to buffer views of construction equipment and material, when feasible. Staging locations shall be indicated on Final Development Plans and Grading Plans. **AES-2** The construction hauling plan shall be prepared and approved by the Public Works Director	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
	prior to issuance of grading permit. The plan shall ensure that construction haul routes minimize impacts to sensitive uses in the Town.	
Scenic Views and Vistas AES-2 Project implementation could have a substantial adverse effect on a scenic view or vista.	No mitigation measures are required.	Less Than Significant Impact.
Long-Term Visual Character/Quality AES-3 Project implementation could degrade the visual character/quality of the site and its surroundings.	Refer to Mitigation Measure BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
Light and Glare AES-4 Implementation of the proposed project could generate additional light and glare beyond existing conditions.	**AES-3** All construction-related lighting fixtures (including portable fixtures) shall be oriented downward and away from adjacent residential areas. Lighting shall consist of the minimal wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the Community and Economic Development Manager for review concurrent with Grading Permit application. **AES-4** Prior to issuance the Building Permit, the Town shall identify on the building plans that potential reflective building materials (e.g., the roof and windows) shall use a non-reflective finish.	Less Than Significant Impact With Mitigation Incorporated.
<u>Cumulative Impacts</u> *Short-Term Visual Character/Quality* • Project construction activities, combined with construction activities for other related cumulative projects, could temporarily degrade the visual character/quality of the development sites and their surroundings.	Refer to Mitigation Measures AES-1 and AES-2.	Less Than Significant Impact With Mitigation Incorporated.
Scenic Views and Vistas • The proposed project, combined with other related cumulative projects, could have an adverse effect on a scenic vista.	No mitigation measures are required.	Less Than Significant Impact.
Long-Term Visual Character/Quality • Project implementation, combined with other related cumulative projects, could degrade the visual character/quality of the development sites and their surroundings.	Refer to Mitigation Measure BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
Light and Glare • Project implementation, combined with other related cumulative projects, could cumulatively contribute to significant light/glare impacts.	Refer to Mitigation Measures AES-3 and AES-4.	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
5.3 Biological Resources		
Special-Status Plant and Wildlife Species BIO-1 Project implementation would not have an adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status.	No mitigation measures are required.	Less Than Significant Impact.
Sensitive Natural Communities BIO-2 Project implementation would not have an adverse effect on riparian habitat or other sensitive natural communities.	**BIO-1** A detailed tree removal and protection plan shall be submitted to Community and Economic Development Manager by the project Contractor, depicting all trees to be preserved and/or removed on the site. The Contractor shall develop the tree removal and protection plan to avoid impacts to on-site Jeffrey pine and lodgepole pine trees. The project Contractor shall follow the recommended guidelines in the General Plan and Municipal Code, which include the following: • All site development shall be designed to avoid and preserve significant groups of trees and large trees as determined by the project Biologist and approved by the Community and Economic Development Manager. • Removal of native trees shall be mitigated at a ratio determined by the Community and Economic Development Manager. If replacement plantings of the removed trees is required, the minimum replacement tree size shall be seven gallons. Further, replacement shall be limited to plantings in areas suitable for tree replacement with species identified in the Town of Mammoth Lakes' Recommended Plant List. Replacement requirements may also be determined based on the valuation of the tree as determined by a Registered Professional Forester or arborist. • A tree removal and protection plan shall be developed by the project Biologist and submitted to the Community and Economic Development Manager. The landscape plan shall also limit the use of turf over root zones of native trees to avoid or minimize adverse impacts of excessive water to native trees.	Less Than Significant Impact With Mitigation Incorporated.
Wildlife Corridors BIO-3 Implementation of the proposed project could interfere with the movement of a native resident or migratory species.	**BIO-2** Pursuant to the Migratory Bird Treaty Act (MBTA), Bald/Golden Eagle Protection Act, and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513), if the Town of Mammoth Lakes conducts all site disturbance/vegetation removal activities (such as removal of any trees, shrubs, or any other potential nesting habitat) outside the avian nesting season, December 1 through August 31, no further action is necessary.	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
	However, if ground disturbance/vegetation removal cannot occur outside of the nesting season, a pre-construction clearance survey for nesting birds shall be conducted within three days of the start of any ground disturbing activities to ensure that no birds are nesting on or within 500 feet of the project site. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active bird nests would occur during site disturbance activities. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside a buffer determined by the biologist in consultation with California Department of Fish and Wildlife (CDFW), or construction shall be delayed until the nest is inactive. The buffer shall also be and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests of non-listed, non-raptors and 500 feet from the nests of listed species or raptors. A biological monitor shall be retained and be present during site disturbance activities in order to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, a monitoring report shall be prepared and submitted to the Applicant for review and approval prior to initiation construction activities within the buffer area. The monitoring report shall summarize the results of the nest monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds. Construction within the designated buffer area shall not proceed until written authorization is received by the Contractor from CDFW.	
<u>Cumulative Impacts</u> • Project implementation, combined with implementation of other related cumulative projects, would not have an adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status.	No mitigation measures are required.	Less Than Significant Impact.
• Project implementation, combined with implementation of other related cumulative projects, would not have an adverse effect on riparian habitat or other sensitive natural community.	Refer to Mitigation Measures BIO-1.	Less Than Significant Impact With Mitigation Incorporated.
• Project implementation, combined with implementation of other related cumulative projects, would not interfere with the movement of a native resident or migratory species.	Refer to Mitigation Measures BIO-2.	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
5.4 Cultural Resources		
Historical/Archaeological Resources CUL-1 The proposed project could cause a significant impact to a historical and/or archaeological resource on-site.	**CUL-1** Archaeological and Native American monitoring shall be conducted for all project-related ground disturbing activities by a qualified archaeologist and Native American monitor appointed by the Public Works Director. Archaeological monitoring shall be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for prehistoric archaeology. If intact features (e.g., hearths, other intact features, burials) are encountered during ground-disturbing activities, work in the immediate area shall halt, the monitors shall immediately notify the Public Works Director, and the find shall be evaluated for significance under the California Environmental Quality Act and National Historic Preservation Act (NHPA). Consultation with the Native American Monitor, the Native American Heritage Commission, and data/artifact recovery, if deemed appropriate, shall be conducted. Under the discretion of the monitors, work shall not be halted for resources that have already been extensively recorded within the site boundary. The monitors may reduce or stop monitoring dependent upon observed conditions. Work shall not be halted or redirected for known site constituents (i.e., flakes or stone tools) that were evaluated as part of the *Phase II Cultural Resources Report*, prepared by Rincon Consultants, Inc., dated September 28, 2016.	Less Than Significant Impact With Mitigation Incorporated.
Tribal Cultural Resources CUL-2 The proposed project could cause a significant impact to a tribal cultural resource on-site.	Refer to Mitigation Measure CUL-1.	Less Than Significant Impact With Mitigation Incorporated.
Burial Sites CUL-3 The proposed project may cause a significant impact to unknown Native American burial sites that could occur on-site.	No mitigation measures are required.	Less Than Significant Impact.
<u>Cumulative Impacts</u> • The proposed project, combined with other related cumulative projects, would not cause a significant impact to a historical and/or archaeological resource.	Refer to Mitigation Measure CUL-1.	Less Than Significant Impact With Mitigation Incorporated.
• The proposed project, combined with other related cumulative projects, could cause a significant impact to a tribal cultural resource on-site.	Refer to Mitigation Measure CUL-1.	Less Than Significant Impact With Mitigation Incorporated.
• The proposed project, combined with other related cumulative projects, may cause a significant impact to unknown Native American burial sites that could occur on-site.	Refer to Mitigation Measure CUL-1.	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
5.5 Traffic and Circulation		
Construction Traffic TRA-1 Project construction would not cause a significant increase in traffic for existing conditions when compared to the traffic capacity of the street system.	**TRA-1** Prior to Issuance of any grading and/or demolition permits, whichever occurs first, a Construction Management Plan shall be submitted for review and approval by the Public Works Director. The Construction Management Plan shall, at a minimum, address the following: • Traffic control for any street closure, detour, or other disruption to traffic circulation. • Identify construction vehicles haul routes for the delivery of construction materials (i.e., lumber, tiles, piping, windows, etc.) to the site; necessary traffic controls and detours; and a construction phasing plan for the project. • Identify any off-site construction staging or material storage sites. • Specify the hours during which transport activities can occur and methods to mitigate construction-related impacts to adjacent streets. • Require the Contractor to keep all haul routes clean and free of debris, including but not limited, to gravel and dirt as a result of its operations. The Contractor shall clean adjacent streets, as directed by the Town Engineer (or representative of the Town Engineer), of any material which may have been spilled, tracked, or blown onto adjacent streets or areas. • The scheduling of hauling or transport of oversize loads shall avoid peak hour traffic periods to the maximum extent feasible, unless approved otherwise by the Town Engineer. No hauling or transport shall be allowed during nighttime hours or Federal holidays. All hauling and transport activities shall comply with Municipal Code Chapter 8.16, *Noise Regulation*. • Haul trucks entering or exiting public streets shall at all times yield to public traffic. • If hauling operations cause any damage to existing pavement, streets, curbs, and/or gutters along the haul route, the contractor shall be fully responsible for repairs. The repairs shall be completed to the satisfaction of the Town Engineer.	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
	• All constructed-related parking and staging of vehicles shall be kept out of the adjacent public roadways and shall occur on-site. • This Construction Management Plan shall meet standards established in the current California Manual on Uniform Traffic Control Device (MUTCD) as well as Town of Mammoth Lakes requirements.	
Project Traffic Generation TRA-2 Project implementation would not cause a significant increase in traffic when compared to the traffic capacity of the street system.	**TRA-2** Prior to Issuance of any grading and/or demolition permits, whichever occurs first, final landscaping plans shall be submitted for review and approval by the Town Engineer to provide adequate drive sight distance at the site driveway.	Less Than Significant Impact With Mitigation Incorporated.
Cumulative Impacts • Construction of the proposed project, and other related cumulative projects, could increase traffic when compared to the traffic capacity of the existing street system.	Refer to Mitigation Measure TRA-1.	Less Than Significant Impact With Mitigation Incorporated.
• Implementation of the proposed project and other related cumulative projects, would not cause a significant increase in traffic for existing and future cumulative conditions when compared to the traffic capacity of the street system.	Refer to Mitigation Measure TRA-2.	Less Than Significant Impact With Mitigation Incorporated.
5.6 Air Quality		
Short-Term (Construction) Air Emissions AQ-1 Short-term construction activities associated with the proposed project could result in air pollutant emission impacts or expose sensitive receptors to substantial pollutant concentrations.	**AQ-1** Prior to approval of the project plans and specifications, the Public Works Director, or designee, shall confirm that the plans and specifications stipulate that, in compliance with GBUAPCD Rule 401, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventive measures, as specified in the GBUAPCD Rules and Regulations. In addition, GBUAPCD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors: • All active portions of the construction site shall be watered to prevent excessive amounts of dust; • On-site vehicles' speed shall be limited to 15 miles per hour (mph); • All on-site roads shall be paved as soon as feasible or watered periodically or chemically stabilized;	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
	• All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust; watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day; • If dust is visibly generated that travels beyond the site boundaries, clearing, grading, earth moving or excavation activities that are generating dust shall cease during periods of high winds (i.e., greater than 25 mph averaged over one hour) or during Stage 1 or Stage 2 episodes; and • All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. **AQ-2** Under GBUAPCD Rule 200-A and 200B, the Contractor shall apply for a Permit To Construct prior to construction, which provides an orderly procedure for the review of new and modified sources of air pollution. **AQ-3** Under GBUAPCD Rule 216-A (New Source Review Requirement for Determining Impact on Air Quality Secondary Sources), the Contractor shall complete the necessary permitting approvals prior to commencement of construction activities.	
Long-Term (Operational) Air Emissions AQ-2 Implementation of the proposed project would result in increased impacts pertaining to operational air emissions.	No mitigation measures are required.	Less Than Significant Impact.
Localized Emissions AQ-3 Development associated with implementation of the proposed project could result in localized emissions impacts or expose sensitive receptors to substantial pollutant concentrations.	No mitigation measures are required.	Less Than Significant Impact.
Consistency With Regional Plans AQ-4 Implementation of the proposed project could conflict with or obstruct implementation of the applicable air quality plan.	No mitigation measures are required.	Less Than Significant Impact.
<u>Cumulative Impacts</u> *Short-Term (Construction) Air Emissions* • Short-term construction activities associated with the proposed project and other related cumulative projects, would result in increased air pollutant emission impacts or expose sensitive receptors to increased pollutant concentrations.	Refer to Mitigation Measures AQ-1 through AQ-3.	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
Long-Term (Operational) Air Emissions • Implementation of the proposed project and other related cumulative projects, would not conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	No mitigation measures are required.	Less Than Significant Impact.
5.7 Greenhouse Gas Emissions		
Greenhouse Gas Emissions GHG-1 Greenhouse gas emissions generated by the project could have a significant impact on global climate change.	No mitigation measures are required.	Less Than Significant Impact.
Consistency with Applicable GHG Plans, Policies, or Regulations GHG-2 Implementation of the proposed project could conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	No mitigation measures are required.	Less Than Significant Impact.
Cumulative Impacts *Greenhouse Gas Emissions* • Greenhouse gas emissions generated by the proposed project and other related cumulative projects could have a significant impact on global climate change.	No mitigation measures are required.	Less Than Significant Impact.
5.8 Noise		
Short-Term Construction Noise Impacts N-1 Grading and construction within the area could result in significant temporary noise impacts to nearby noise sensitive receivers.	**NOI-1** Prior to issuance of any Grading Permit or Building Permit for new construction, the Public Works Director, or designee, shall confirm that the Grading Plan, Building Plans, and specifications stipulate that: • All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices. • The Contractor shall provide a qualified "Noise Disturbance Coordinator." The Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the Town within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Public Works Director, or designee. The contact name and the telephone number for the Disturbance Coordinator shall be clearly posted on-site. • When feasible, construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, schools, hospitals, etc.).	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
	• During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers. • Construction activities that produce noise shall not take place outside of the allowable hours specified by the Town's Municipal Code Section 8.16.090 (7:00 a.m. and 8:00 p.m. Monday through Saturday; construction is prohibited on Sundays and/or federal holidays).	
Vibration Impacts N-2 Project implementation would not result in significant vibration impacts to nearby sensitive receptors.	No mitigation measures are required.	Less Than Significant Impact.
Long-Term (Mobile) Noise Impacts N-3 Traffic generated by the proposed project would not significantly contribute to existing traffic noise in the area or exceed the Town's established standards.	No mitigation measures are required.	Less Than Significant Impact.
Long-Term (Stationary) Noise Impacts N-4 The proposed project would not result in a significant increase in long-term stationary ambient noise levels.	**NOI-2** Prior to issuance of the certificate of occupancy for the new Community Multi-Use Facilities, the Town's Community Development and Economic Manager shall ensure that operational hours of ice hockey and hockey tournaments at the ice rink and the active outdoor recreational area do not occur past 10:00 p.m. This limitation shall be enforced by the Parks and Recreation Director. **NOI-3** Prior to occupancy of the community center, the Town shall develop and implement a Noise Control Plan for event operations that have live or recorded amplified music. The Noise Control Plan shall contain the following elements: • Amplified noise sources (e.g., speakers, bandstands, etc.) shall be located more than 160 feet from the project's western and northern boundaries. Speaker systems shall also be directed away from the nearest sensitive receptors. • Amplification systems that would be used after 10:00 p.m. shall include and utilize a processor to control the maximum output that the speakers can reach. Noise levels during this period shall not exceed 82 dBA at 20 feet from the source. • The contact telephone number and email addresses of the appropriate Parks and Recreation Department representatives shall be posted at each facility entrance for	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
	neighbors to lodge noise complaints or other concerns. Complaints shall be addressed in a diligent and responsive manner.	
Cumulative Impacts *Short-Term Construction Noise Impacts* • Grading and construction within the area could result in significant short-term noise impacts to nearby noise sensitive receivers, following implementation of mitigation measures.	Refer to Mitigation Measure NOI-1.	Less Than Significant Impact With Mitigation Incorporated.
Vibration Impacts • Project implementation would not result in significant vibration impacts to nearby sensitive receptors.	No mitigation measures are required.	Less Than Significant Impact.
Long-Term (Mobile) Noise Impacts • Traffic generated by the proposed project would not significantly contribute to existing traffic noise in the area or exceed the Town's established standards.	No mitigation measures are required.	Less Than Significant Impact.
Long-Term (Stationary) Noise Impacts • The proposed project would not result in a significant increase in long-term stationary ambient noise levels.	Refer to Mitigation Measures NOI-2 and NOI-3.	Less Than Significant Impact With Mitigation Incorporated.
5.9 Hydrology and Water Quality		
Water Quality – Short-Term Impacts HWQ-1 Grading, excavation, and construction activities associated with the proposed project could impact water quality.	**HWQ-1** Prior to Grading Permit issuance and as part of the project's compliance with the National Pollution Discharge Elimination System (NPDES) requirements, a Notice of Intent (NOI) shall be prepared and submitted to the State Water Resources Quality Control Board (SWRCB), providing notification and intent to comply with the State of California General Permit. **HWQ-2** The proposed project shall conform to the requirements of an approved Storm Water Pollution Prevention Plan (SWPPP) (to be applied for during the Grading Plan process) and the National Pollution Discharge Elimination System (NPDES) Construction General Permit No. CAS000002 (2009-0009-DWQ [as amended by 2010-0014-DWQ and 2012-006-DWQ]), including implementation of all recommended Best Management Practices (BMPs), and utilize the Town of Mammoth Lakes Memorandum of Understanding (MOU) Resolution No. 6-91-926 issued by the State Water Resources Control Board. **HWQ-3** Upon completion of project construction, the Public Works Director shall submit a Notice of Termination (NOT) to the State Water Resources Quality Control Board to indicate that construction is completed.	Less Than Significant Impact With Mitigation Incorporated.

Impact Statement	Mitigation Measure	Significance After Mitigation
Long-Term Operational Impacts HWQ-2 Implementation of the proposed project could potentially result in increased run-off amounts and degraded water quality.	**HWQ-4** Prior to submittal of Grading Plans, the Town shall identify and implement a suite of storm drainage routing and conveyance infrastructure components designed to retain additional surface water flows prior to discharge. The design, sizing, and location of these drainage components shall be subject to review and approval by the Town. Implementation of this storm drainage infrastructure shall be approved by the Public Works Director and Town Engineer prior to the issuance of Grading or Building Permits. **HWQ-5** A Storm Drain Facilities Maintenance Plan (Maintenance Plan) shall be prepared by the Town prior to issuance of a Certificate of Occupancy in order to ensure continued efficiency of proposed storm drain facilities. Implementation of the Maintenance Plan shall be overseen by the Public Works Director. Particular items requiring maintenance include, but are not limited to, cleaning of the grates, removal of foreign materials from storm drainage pipes, maintenance, as necessary, to outlet facilities, and repairs, as necessary, to damaged facilities. Any storm drain pipe with a slope of less than 0.5 percent shall be identified and more frequent maintenance shall be performed to ensure efficiency of these low-incline facilities. Further, the Maintenance Plan shall ensure that snow removal activities conducted near proposed storm drain facilities do not restrict drainage collection in gutters, inlets, and flow paths. **HWQ-6** Prior to submittal of grading plans, the Public Works Director shall identify and implement a suite of stormwater quality Best Management Practices (BMP) and Low Impact Development (LID) features to address the most likely sources of stormwater pollutants resulting from operation of the proposed project. Pollutant sources and pathways to be addressed by these BMPs include, but are not necessarily limited to, parking lots, maintenance areas, trash storage locations, rooftops, interior public and private roadways, and storm drain inlets. The design and location of these BMPs shall generally adhere to the standards associated with the Phase II NPDES stormwater permit program. Implementation of these BMPs shall be assured by the Community & Economic Development Manager and Town Engineer prior to the issuance of Grading or Building Permits.	Less Than Significant Impact With Mitigation Incorporated.
Flooding HWQ-3 The project site is subject to flooding within the 100-year flood zone and could expose people or structures to flooding.	No mitigation measures are required.	Less Than Significant Impact.

Impact Statement	Mitigation Measure	Significance After Mitigation
Cumulative Impacts • Grading, excavation, and construction activities associated with the proposed project and other related cumulative projects could potentially impact water quality.	Refer to Mitigation Measures HWQ-1 through HWQ-6.	Less Than Significant Impact With Mitigation Incorporated.
• Implementation of the proposed project and other related cumulative projects could potentially result in increased run-off amounts and degraded water quality.	Refer to Mitigation Measures HWQ-1 through HWQ-6.	Less Than Significant Impact With Mitigation Incorporated.

1.5 SUMMARY OF PROJECT ALTERNATIVES

In accordance with *CEQA Guidelines* Section 15126.6, this section describes a range of reasonable alternatives to the proposed project, which could feasibly attain most of the proposed project's basic objectives, but would avoid or substantially lessen significant effects of the proposed project. The evaluation considers the comparative merits of each alternative. The analysis focuses on alternatives capable of avoiding or substantially lessening the project's significant environmental effects, even if the alternative would impede, to some degree, the attainment of the proposed project objectives. Potential environmental impacts associated with four separate alternatives are compared to impacts of the proposed project. The following is a description of each of the alternatives evaluated in Section 7.0, *Alternatives to the Proposed Project*.

"NO PROJECT" ALTERNATIVE

The No Project Alternative would retain the project site in its current condition. The operations of the existing community center and Mammoth Ice Rink would continue similar to existing conditions, and would not be relocated to the project site. Under the No Project Alternative, a new covered ice rink, support facilities, and community multi-use facilities would not be constructed at Mammoth Creek Park West. No landscape or hardscape improvements would be provided at Mammoth Creek Park West.

"CIVIC CENTER PARCEL ALTERNATIVE SITE" ALTERNATIVE

Under the Civic Center Parcel Alternative Site Alternative, the proposed new ice rink/ recreation/event area (RecZone) would be developed at the Civic Center Parcel. This Alternative would encompass an ice rink (winter)/RecZone covered by a roof structure and additional storage and support space would be similar to the proposed project. However, based on available space upon completion of the proposed Police Station at this site, a complementary community center or active outdoor recreational area would not be constructed. Appropriate surface parking and utility connections would be required to be installed. Similar to the proposed project, upon project completion of construction, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation.

"BELL SHAPED PARCEL ALTERNATIVE SITE" ALTERNATIVE

Under the Bell Shaped Parcel Alternative Site Alternative, the proposed community multi-use facilities would be developed at the Bell Shaped Parcel. This Alternative would encompass an ice rink (winter)/RecZone covered by a roof structure, complimentary community center, additional storage and support space, as well as an outdoor active area, similar to the proposed project. Appropriate surface parking and utility connections would be required to be installed. Similar to the proposed project, upon project completion of construction, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation.

"RECONFIGURATION" ALTERNATIVE

The Reconfiguration Alternative would reconfigure the proposed structures, resulting is less building square-footage for the proposed community facility. Under the Reconfiguration Alternative, the proposed new community multi-use facilities would be developed at the project site, but shifted slightly west (compared to the proposed project). The new community multi-use facilities would encompass an ice rink (winter)/RecZone covered by a roof structure, similar to the proposed project. However, additional support space and community center square-footage would be reduced by approximately 3,000 square feet. Surface parking and utility connections would be constructed, similar to the proposed project. Under this Alternative, an active outdoor recreation area would also be constructed. Similar to the proposed project, upon project completion of construction, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation.

"ENVIRONMENTALLY SUPERIOR" ALTERNATIVE

The environmentally superior alternative is the Civic Center Parcel Alternative Site Alternative, as impacts are less than the proposed project. The Civic Center Parcel Alternative Site Alternative would meet some of the project's basic objectives as the existing ice rink would be relocated closer to public corridors/trails and a covered roof structure over the Town's ice rink facility would also be provided. However, a complimentary community center and new active outdoor recreational opportunities for all seasons would not be created. Further, implementation of this Alternative would preclude the Town from placing future government facilities at this property. The proposed project would not meet the Town's goals and objectives for a government facilities at this location.

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2.0 Introduction and Purpose

2.0 INTRODUCTION AND PURPOSE

The proposed Mammoth Creek Park West New Community Multi-Use Facilities (project) is located within the Town of Mammoth Lakes (Town), in the southwest portion of Mono County, on the eastern side of the Sierra Nevada mountain range. The project site is located at Mammoth Creek Park West (686 Old Mammoth Road) and is comprised of Assessor's Parcel Numbers (APNs) 040-140-001-000 and 040-140-002-000.

2.1 PURPOSE OF THE EIR

The Town is the Lead Agency under the California Environmental Quality Act (CEQA), and has determined that an Environmental Impact Report (EIR) is required for the Mammoth Creek Park West New Community Multi-Use Facilities (project) (State Clearinghouse No. 2016062009). This EIR has been prepared in conformance with CEQA (California Public Resources Code [PRC] Section 21000 et seq.); *CEQA Guidelines* (California Code of Regulations [CCR], Title 14, Section 15000 et seq.); and the rules, regulations, and procedures for implementation of CEQA, as adopted by the Town of Mammoth Lakes. The principal *CEQA Guidelines* sections governing content of this document include Article 9 (*Contents of Environmental Impact Reports*) (Sections 15120 through 15132), and Section 15161 (*Project EIR*).

The purpose of this EIR is to review the existing conditions, analyze potential environmental impacts, and identify feasible mitigation measures to reduce potentially significant effects of the proposed project. For more detailed information regarding the project, refer to Section 3.0, *Project Description*.

This EIR addresses the environmental effects of the project, in accordance with Section 15161 of the *CEQA Guidelines*. As referenced in Section 15121(a) of the *CEQA Guidelines*, the primary purposes of this EIR are to:

- Inform decision-makers and the public generally of the significant environmental effects of a project;
- Identify possible ways to minimize the significant effects of the project; and
- Describe reasonable alternatives to the project.

Mitigation measures are provided that may be adopted as conditions of approval to avoid or minimize the significance of impacts resulting from the project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the proposed project.

The Town of Mammoth Lakes (which has the principal responsibility of processing and approving the project) and other public (i.e., responsible and trustee) agencies that may use this EIR in the decision-making or permit process will consider the information in this EIR, along with other information that may be presented during the CEQA process. Environmental impacts are not always mitigatable to a level considered less than significant; in those cases, impacts are considered significant unavoidable impacts. In accordance with Section 15093(b) of the *CEQA Guidelines*, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e.,

significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. This is termed, per Section 15093 of the *CEQA Guidelines*, a "statement of overriding considerations."

This document analyzes the environmental effects of the project to the degree of specificity appropriate to the current proposed actions, as required by Section 15146 of the *CEQA Guidelines*. The analysis considers the activities associated with the project to determine the short-term and long-term effects associated with their implementation. This EIR discusses both the direct and indirect impacts of this project, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects.

2.2 COMPLIANCE WITH CEQA

PUBLIC REVIEW OF DRAFT EIR

In accordance with Sections 15087 and 15105 of the *CEQA Guidelines*, this Draft EIR will be circulated for a 45-day public review period, beginning on December 29, 2016. Interested agencies and members of the public are invited to comment in writing on the information contained in this document. Persons and agencies commenting are encouraged to provide information that they believe is missing from the Draft EIR and to identify where the information can be obtained. All comment letters received before the close of the public review period will be responded to in writing, and the comment letters, together with the responses to those comments, will be included in the Final EIR.

Comment letters should be sent to:

Town of Mammoth Lakes Community and Economic Development Department
P.O. Box 1609
Mammoth Lakes, CA 93546
Attn: Ms. Sandra Moberly, Community and Economic Development Manager
smoberly@townofmammothlakes.ca.gov

FINAL EIR

The Final EIR will consist of the Draft EIR, revisions to the Draft EIR (if any), and responses to all written comments addressing concerns raised in the comments of responsible agencies, the public, and any other reviewing parties. After the Final EIR is completed, and at least ten days prior to the certification hearing, a copy of the response to comments made by public agencies on the Draft EIR will be provided to the commenting agencies.

2.3 NOTICE OF PREPARATION/ EARLY CONSULTATION (SCOPING)

In compliance with the *CEQA Guidelines*, the Town of Mammoth Lakes has provided opportunities for various agencies and the public to participate in the environmental review process. During

preparation of the Draft EIR, efforts were made to contact various Federal, State, regional, and local government agencies and other interested parties to solicit comments on the scope of the review in this document. This included the distribution of a Notice of Preparation (NOP) to various responsible agencies, trustee agencies, and interested parties. In addition, a public scoping meeting was held on June 8, 2016 in the Town of Mammoth Lakes Town Council Chambers located at 437 Old Mammoth Road.

Pursuant to Section 15082 of the *CEQA Guidelines*, as amended, the Town of Mammoth Lakes circulated an NOP directly to public agencies (including the State Clearinghouse Office of Planning and Research), special districts, and members of the public who had requested such notice. The NOP was distributed on June 2, 2016, with the 30-day public review period concluding on July 1, 2016. The purpose of the NOP was to formally announce the preparation of a Draft EIR for the proposed project, and that, as the Lead Agency, the Town was soliciting input regarding the scope and content of the environmental information to be included in the EIR. The NOP provided preliminary information regarding the anticipated range of impacts to be analyzed within the EIR. The NOP and NOP comments are provided as Appendix 11.1, *Initial Study/Notice of Preparation and Comment Letters*. The NOP comments included the following:

- Impacts to Native American and tribal cultural resources (refer to Section 5.4, *Cultural Resources*);
- Impacts to archaeological resources (refer to Section 5.4, *Cultural Resources*);
- Impacts related to public transit, bicycle, or pedestrian facilities (refer to Section 5.5, *Traffic and Circulation*);
- Traffic safety and potential traffic hazards (refer to Section 5.5, *Traffic and Circulation*);
- Impacts related to groundwater (refer to Section 5.9, *Hydrology and Water Quality*);
- Aesthetic impacts and alterations to existing visual character in the project area (refer to Section 5.2, *Aesthetics/Light and Glare*);
- A range of reasonable alternatives to the project and to the location of the project (refer to Section 7.0, *Alternative to the Proposed Project*);
- Impacts to biological resources (refer to Section 5.3, *Biological Resources*);
- Impacts related to air quality (refer to Section 5.6, *Air Quality*); and
- Light and glare impacts in the project area (refer to Section 5.2, *Aesthetics/Light and Glare*).

A comment letter was also sent to the Town Council on October 21, 2015 on behalf of the La Vista Blanc Homeowners' Association, Mammoth Creek Crossing Homeowners' Association, Sunrise Homeowners' Association, and the Chateau Blanc Homeowners' Association. This letter was sent prior to the NOP being released for public review, and was directed to the Town Council's October 21, 2015 hearing where the Town was considering an authorization to proceed with conceptual

design and environmental review for the proposed project. Beyond the comments raised during the NOP period, additional concerns that were raised by the Homeowners' Associations included the following:

- Noise created by the proposed project in the vicinity of the site (refer to Section 5.8, *Noise*);
- Consistency with local planning documentation, goals, and policies (refer to Section 5.1, *Land Use and Relevant Planning*);
- Police and fire protection services and impacts to public safety (refer to Section 8.0, *Effects Found Not To Be Significant*);
- Water quality impacts by the proposed project (refer to Section 5.9, *Hydrology and Water Quality*);
- Impacts related to storm water collection and treatment (refer to Section 5.9, *Hydrology and Water Quality*);
- Impacts related to soil erosion (refer to Section 8.0, *Effects Found Not To Be Significant*); and
- Impacts related to hazardous materials in the project area (refer to Section 8.0, *Effects Found Not To Be Significant*).

2.4 FORMAT OF THE EIR

The Draft EIR is organized into the following sections:

- Section 1.0, *Executive Summary*, provides a brief project description and summary of the environmental impacts and mitigation measures.
- Section 2.0, *Introduction and Purpose*, provides CEQA compliance information.
- Section 3.0, *Project Description*, provides a detailed project description indicating project location, background, and history; project characteristics, phasing, and objectives; as well as associated discretionary actions required.
- Section 4.0, *Basis of Cumulative Analysis*, describes the approach and methodology for the cumulative analysis.
- Section 5.0, *Environmental Analysis*, contains a detailed environmental analysis of the existing conditions, potential project impacts, recommended mitigation measures, and possible unavoidable adverse impacts for a number of environmental topic areas.
- Section 6.0, *Other CEQA Considerations*, discusses the long-term implications of the proposed action. Irreversible environmental changes that would be involved in the proposed action, should it be implemented, are considered. The project's growth-inducing impacts, including the potential for population growth, and energy conservation impacts are also discussed.

- Section 7.0, *Alternatives to the Proposed Action*, describes a reasonable range of alternatives to the project or to the location of the project that could avoid or substantially lessen the significant impact of the project and still feasibly attain the basic project objectives.

- Section 8.0, *Effects Found Not To Be Significant*, provides an explanation of potential impacts that have been determined not to be significant.

- Section 9.0, *Organizations and Persons Consulted*, identifies all Federal, State, and local agencies, other organizations, and individuals consulted.

- Section 10.0, *Bibliography*, identifies reference sources for the EIR.

- Section 11.0, *Appendices*, contains technical documentation for the project.

2.5 RESPONSIBLE AND TRUSTEE AGENCIES

Certain projects or actions undertaken by a Lead Agency require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Such other agencies are referred to as Responsible Agencies and Trustee Agencies. Pursuant to Sections 15381 and 15386 of the *CEQA Guidelines*, as amended, Responsible Agencies and Trustee Agencies are respectively defined as follows:

> *"Responsible Agency" means a public agency, which proposes to carry out or approve a project, for which [a] Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "responsible agency" includes all public agencies other than the Lead Agency, which have discretionary approval power over the project. (Section 15381)*
>
> *"Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. Trustee Agencies include; The California Department of Fish and Wildlife, The State Lands Commission; The State Department of Parks and Recreation and The University of California with regard to sites within the Natural Land and Water Reserves System. (Section 15386)*

Responsible and Trustee Agencies and other entities that may use this EIR in their decision-making process or for informational purposes include, but may not be limited to, the following:

- Mammoth Community Water District;
- Mammoth Lakes Fire Protection District;
- Native American Heritage Commission;
- California Regional Water Quality Control Board (Lahontan);
- State Water Resources Control Board;
- Great Basin Unified Air Pollution Control District;
- California Department of Fish and Wildlife; and
- U.S. Fish and Wildlife.

2.6 INCORPORATION BY REFERENCE

Pertinent documents relating to this EIR have been cited in accordance with Section 15150 of the *CEQA Guidelines*, which encourages incorporation by reference as a means of reducing redundancy and the length of environmental reports. The following documents are hereby incorporated by reference into this EIR. Information contained within these documents has been utilized for each section of this EIR. These documents are available for review at the Town of Mammoth Lakes Community and Economic Development Department, located at 437 Old Mammoth Road, Suite R, Mammoth Lakes, CA 93546 and on the Town's website: http://www.townofmammothlakes.ca.gov.

- *Town of Mammoth Lakes General Plan 2007*. The Town of Mammoth Lakes Council adopted the *Town of Mammoth Lakes General Plan 2007* (General Plan) on August 15, 2007. The General Plan establishes standards, guidelines, and priorities that define the community now and for the future. The General Plan is organized by elements. Each element is introduced with an explanation of the intent of the goals, policies, and actions within that element. The General Plan contains the following elements:

  - Economy;
  - Arts, Culture, Heritage, and Natural History;
  - Community Design;
  - Neighborhood and District Character;
  - Land Use;
  - Mobility;
  - Parks, Open Space and Recreation;
  - Resource Management and Conservation; and
  - Public Health and Safety.

  It is noted that the Housing and Noise Elements were not updated as part of the General Plan. However, an updated Housing Element was adopted in 2010, and the 2014-2019 Housing Element Update was adopted in June 2014 and revised in May 2015. Additionally, the Town Council amended the Parks, Open Space, and Recreation Element in 2012 with the addition of new policies and one additional goal and revoked the 1990 Parks and Recreation Element.

- *Final Program Environmental Impact Report for the Town of Mammoth Lakes 2005 General Plan Update* (May 2007). The Final Program Environmental Impact Report (General Plan PEIR) analyzed the environmental impacts associated with the update of the Town's General Plan. This update provided the Town's long-range comprehensive direction to guide future development and identified the community's environmental, social, and economic goals. The General Plan PEIR document was prepared as a Program EIR, which is intended to facilitate consideration of broad policy directions, program-level alternatives, and mitigation measures consistent with the level of detail available for the plan. The General Plan PEIR concluded significant and unavoidable impacts regarding aesthetics, air quality, biological resources, public safety and hazards, noise, public services and utilities, and recreation.

- *Town of Mammoth Lakes Municipal Code (Municipal Code)*. The *Town of Mammoth Lakes Municipal Code* (Municipal Code) consists of all the regulatory and penal ordinances and administrative ordinances of the Town of Mammoth Lakes. It is the method the Town uses to implement control of land uses, in accordance with General Plan goals and policies. The Town of Mammoth Lakes Zoning Ordinance, Title 17, of the Municipal Code identifies land uses permitted and prohibited according to the zoning category of particular parcels. The Buildings and Construction Ordinance, Title 15, specifies rules and regulations for construction, alteration, and building for uses of human habitation.

- *Final Mammoth Creek Park Facilities Project Environmental Impact Report (Mammoth Creek Park Facilities Project EIR)*. The *Final Mammoth Creek Park Facilities Project Environmental Impact Report* (1999 Project EIR), dated February 1999, addressed the environmental impacts associated with a similar community park project located at the same site as the proposed project. This project proposed year-round recreational facilities included a dual-use ice/in-line skating outdoor (concrete) area, a 10,000 square foot Community Center, and several other recreational amenities (volleyball court, horseshoe area, expansion of the existing children's play area, dual-use basketball court and overflow parking area, expansion of existing on-site restrooms, fire pit area, climbing wall, and picnic area) to provide a recreational and public gathering place for both residents of and visitors to the Town. The 1999 Project EIR determined that soils/topography, geology/seismic, water quality, water supply, biological resources, air quality, housing, population, public services/utilities, health/safety/nuisance, cultural resources, energy and scarce resources and recreation impacts were found to be less than significant. Where potentially significant environmental impacts with land use compatibility, aesthetics/light and glare, traffic, circulation, and parking, and noise were identified, feasible mitigation measures were recommended that would avoid or lessen adverse environmental effects of the project. The 1999 Project EIR concluded that there were no significant and unavoidable impacts that would occur with implementation of this project. Although the Town prepared the 1999 Project EIR, it was not certified and therefore, cannot be tiered from for the purposes of CEQA and the proposed project.

- *Town of Mammoth Lakes Parks and Recreation Master Plan*. The Town of Mammoth Lakes Council adopted the *Town of Mammoth Lakes Parks and Recreation Master Plan* (Parks and Recreation Master Plan) on February 1, 2012 to assess the Town's recreation needs for the future and establishes goals and policies that would guide park improvements. The Parks and Recreation Master Plan contains an analysis of the supply, demand, and needs for park and recreation facilities and services within the Town, and includes a comprehensive assessment of public and private facilities available in and around Mammoth Lakes. It also recommends implementation strategies to help meet the challenges of providing parks and recreation facilities and a vision for developing parks and recreation within Mammoth Lakes for the next 17 years.

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3.0 Project Description

3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

3.1.1 PROJECT LOCATION

The proposed Mammoth Creek Park West New Community Multi-Use Facilities Project (project) is located within the Town of Mammoth Lakes (Town), in the southwest portion of Mono County, on the eastern side of the Sierra Nevada mountain range; refer to Exhibit 3-1, *Regional Vicinity*. The project site is located at Mammoth Creek Park West (686 Old Mammoth Road) and is comprised of Assessor's Parcel Numbers (APNs) 040-140-001-000 and 040-140-002-000. The project site is approximately 4.9 acres and is bounded by multi-family residential uses and commercial uses to the north, Old Mammoth Road to the east, recreational open space to the south, and multi-family residential uses to the west; refer to Exhibit 3-2, *Site Vicinity*. Vehicular access to the site is provided via Old Mammoth Road, and pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site. The primary local roadway providing access to the project site is Old Mammoth Road.

The Town's existing community center (1000 Forest Trail) and Mammoth Ice Rink (416 Sierra Park Road) are located approximately 1.38 miles to the northwest, and 0.30-mile to the northeast of the project site, respectively. The operations of the existing community center would continue. However, the winter and summer operations of the Multi-Use Facility (Mammoth Ice Rink/Mammoth RecZone) would be relocated to the project site, as described below in Section 3.3, *Project Characteristics*.

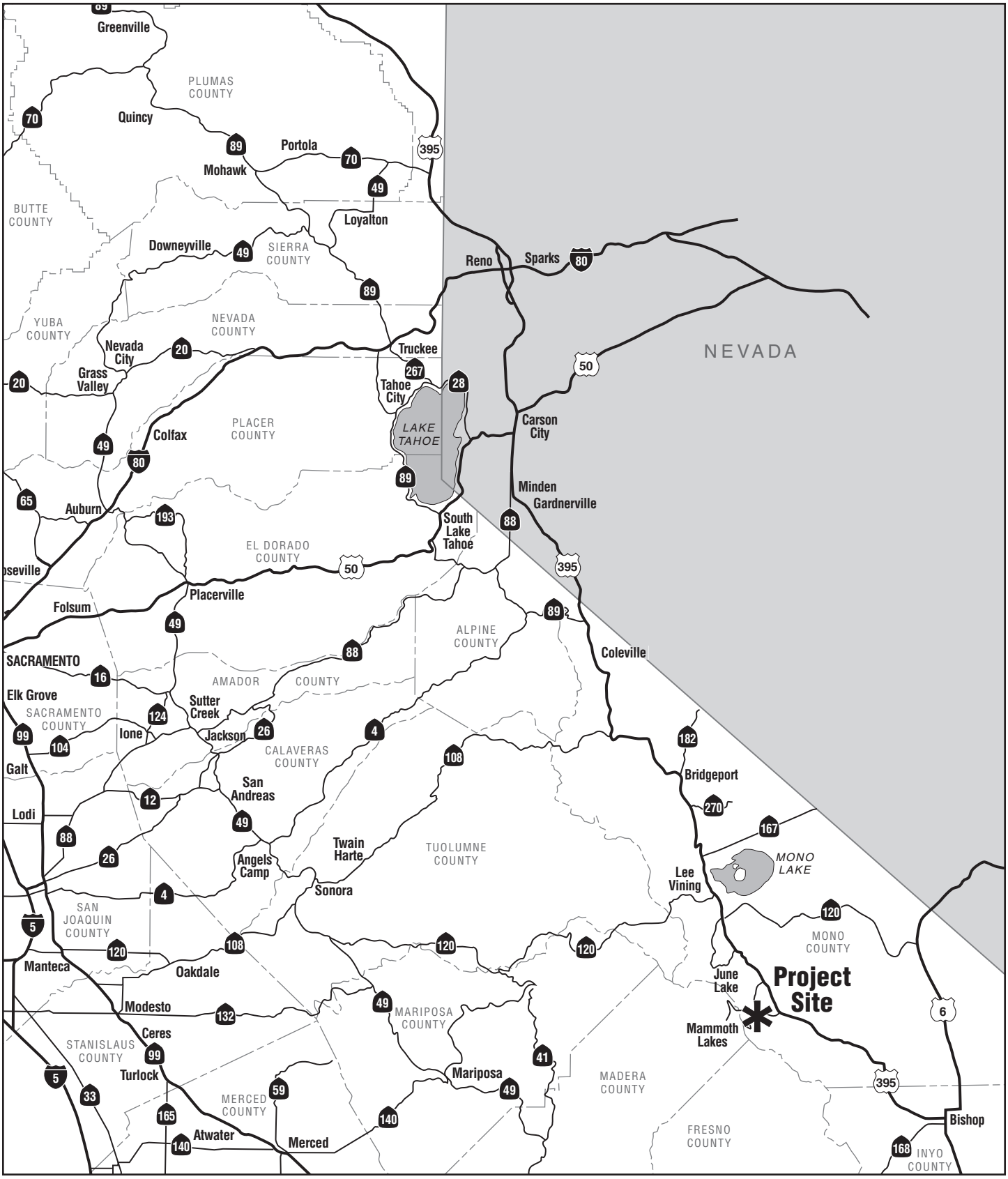
3.1.2 PROJECT SETTING (EXISTING CONDITIONS)

The project site is comprised of Mammoth Creek Park West; refer to Exhibit 3-2. Mammoth Creek Park West currently includes playground equipment, grass/open space, picnic areas, trail connections, and a surface parking lot for 44 vehicles. Based on the *Town of Mammoth Lakes General Plan 2007* (General Plan) Land Use Map, the project site is designated Open Space (OS). Based on the Town's Zoning Map, the project site is zoned Public and Quasi Public (P-QP).

SURROUNDING LAND USES

Land uses surrounding the project site include the following:

- *North:* Commercial/office uses, including The Stove restaurant and Mammoth Dental office, and multi-family residential uses (Chateau Blanc Condominiums) are located to the north of the project site. The General Plan land use designation to the north is Commercial 2 (C-2) and High Density Residential 2 (HDR-2). The zoning districts to the north are Old Mammoth Road (OMR) and Residential Multi-Family 2 (RMF-2).



NOT TO SCALE

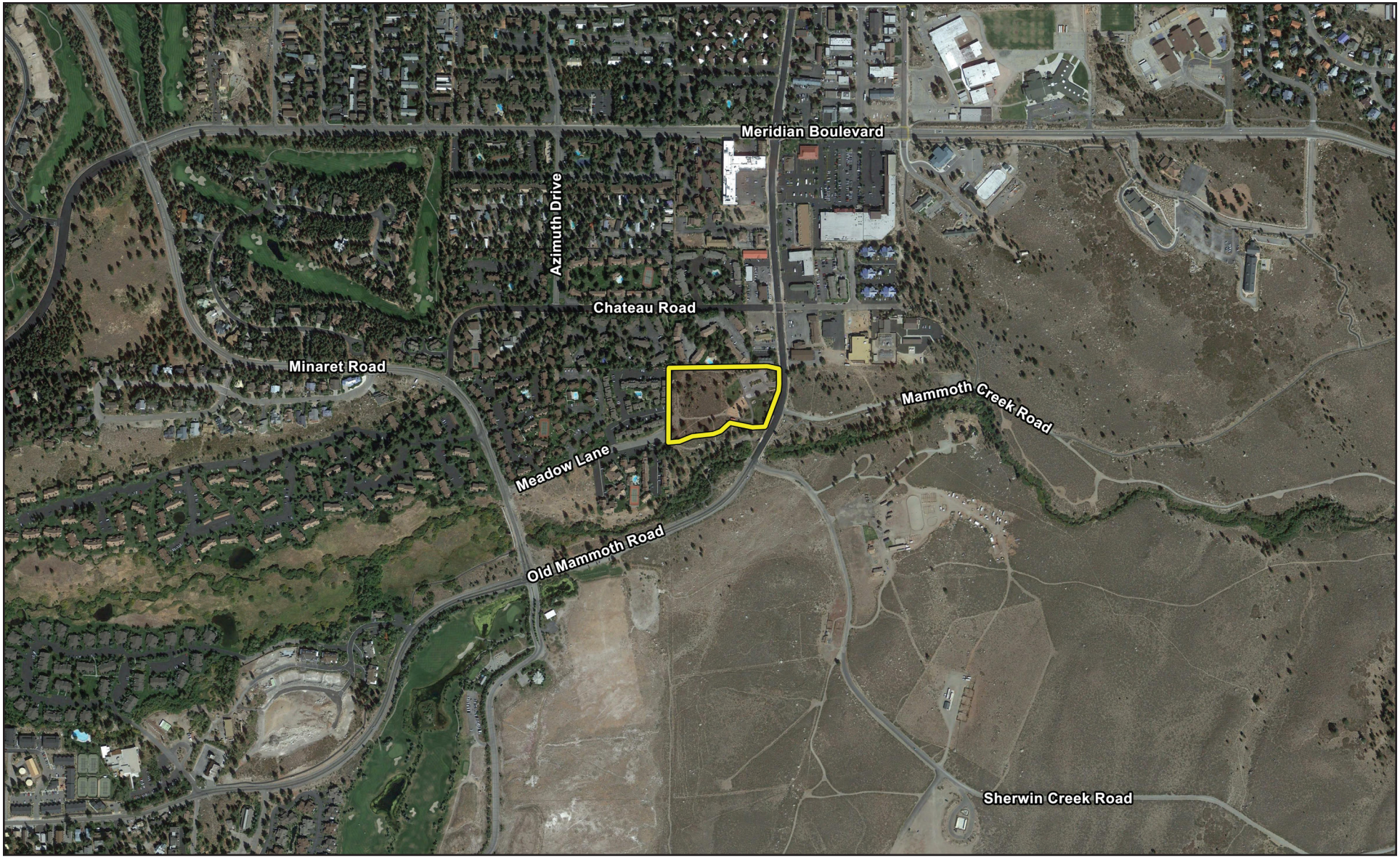
Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Regional Vicinity

Exhibit 3-1



Source: Goolge Earth, 2016.
- Project Site

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MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Site Vicinity

Exhibit 3-2

- *East:* Open space/recreational trail uses (Town Loop trail), Mammoth Creek, Mammoth Creek Park East [owned by the United States Forest Service (USFS) and in part under a Special Use Permit to the Town], and Old Mammoth Road are located to the east of the project site. The General Plan land use designation to the east is National Forest (NF), which is applied to lands administered by the Inyo National Forest owned by the USFS that are outside the adopted urban growth boundary. Zoning districts are not applicable to the uses adjoining the project site to the east, as these uses are associated with the Inyo National Forest.

- *South:* The southern portion of Mammoth Creek Park West [owned by the USFS and in part under a Special Use Permit to the Town], open space/recreational trail uses (Town Loop trail), and Mammoth Creek bound the project site to the south. In addition, Old Mammoth Road is located further to the south. The General Plan land use designation is OS. The zoning district is P-QP with an Open Space/Stream Corridor overlay.

- *West:* Multi-family residential uses (La Visa Blanc Condominiums) bound the project site to the west. Mammoth Creek Condominiums are situated further southwest of the project site. The General Plan land use designation to the west and southwest are HDR-2. The zoning district to the west and southwest are RMF-2 and RMF-2 with an Open Space/Stream Corridor overlay respectively.

3.2 BACKGROUND AND HISTORY

PREVIOUS ENVIRONMENTAL DOCUMENTATION

In February 1999, the Town prepared the Mammoth Creek Park Facilities Project EIR for a similar project. The former proposed year-round recreational facilities included a dual-use ice/in-line skating outdoor (concrete) area, a 10,000 square foot Community Center, and several other recreational amenities to provide a recreational and public gathering place for both residents and visitors to the Town.

ICE RINK

The Town has been engaged in finding a permanent location for the Multi-Use Facility with a focus on the operation of an ice rink since 1998. From 1999-2004 the Town operated a seasonal ice rink at the Mammoth RV Park that was well attended; however, escalating operating costs required the Town to find another location. In 2007, the Town entered into a long-term agreement with the Mammoth Unified School District (MUSD) and the Mono County Office of Education (MCOE) to utilize two acres of land adjacent to the MUSD offices to construct and operate an ice rink. The ice rink operated from 2007 to 2010 on a temporary basis and averaged over 6,000 skaters per winter. In 2011, Measure R funds contributed to the installation of a permanent ice rink slab, and the Town has been operating the facility year-round since 2012 as an ice rink in winter and the Mammoth RecZone, an outdoor venue with a small amount of shade, lights, and concessions offering activities (inline/roller skating, skate ramps, volleyball, badminton, basketball, etc.) during the summer. Visitation at the ice rink peaked at 11,209 visitors from 2011 to 2012 and has averaged approximately 7,000 per year during the four year period since. The Town has determined the lease for this existing facility would not be extended past the end of 2017.

COMMUNITY CENTER

The Town operates a year-round community center of approximately 2,500 square feet, located at 1000 Forest Trail just east of Minaret Boulevard. The facility has several deficiencies, including extensive building deterioration, on-going maintenance issues, and functional inefficiencies. Currently, this facility does not meet the current or future desire or needs of the community and would require substantial investment to upgrade the structure. While operations at the existing facility are anticipated to continue for the foreseeable future, rather than invest considerable funds to upgrade the existing facility, the Town intends to design and construct a new facility at the project site.

TOWN COUNCIL SITE SELECTION AND RECOMMENDATION

On April 1, 2015, Town Council directed staff to provide recommendations regarding the relocation of the Multi-Use Facility to Mammoth Creek Park West. This direction was based on the Town Council's action to not renew a long-term lease with the MUSD and MCOE at its current location. Analysis of the current site included but was not limited to the following findings:

- It is not in the best interest of the Town to continue to invest in a leased facility for a 20 plus year time frame;
- The enhanced use of the Facility at its current location creates some unintended conflicts with other facilities (i.e., library, parking), which may grow in the future;
- The location has operational constraints; and
- The site is constrained in size and location, thereby limiting the Town's ability to develop future complementary community amenities, such as a community center, expanded play areas for summer use, etc.

Based on a review of the options to continue with the Multi-Use Facility at the current location with additional investment, the pros and cons of the site for each of the parties, and considering long-term interests for the community, it was determined that the best strategy was to look at an alternative location for an improved facility.

The Town encouraged broad public input regarding the initial planning and design effort for finding an alternative location. The proposed project has been subject of numerous meetings including a previous site walk and open design charrette conducted on April 30, 2015 by the Town. It has also been on the agendas of the Recreation Commission, Mammoth Lakes Recreation (MLR), and Town Council.

On October 21, 2015, Town Council accepted the recommendations from the Recreation Commission, MLR, and members of the Ad Hoc Facility Task Force to commence preliminary design and environmental documentation for the location of community recreation facilities within Mammoth Creek Park West. This action followed extensive due diligence conducted by Town staff along with representatives from MLR and the Recreation Commission on a proposed relocation of

the Community Multi-Use Recreation Facility and the consideration of location options and environmental analysis. This Ad Hoc Committee worked as a short-term task force for three months to provide options to Council that also included the determination and investigation of an appropriate and low cost alternative for a temporary shade cover at the current facility.

ICE RINK/COMMUNITY CENTER SITE REVIEW

Town Staff working in conjunction with representatives from MLR and the Recreation Commission were tasked to identify, evaluate, and recommend to Town Council appropriate sites for a Multi-Use Facility that would include a new community center and ice rink, and complementary uses. After an extensive review of available Town-owned properties/managed facilities, the following sites were considered for the project and shown on Exhibit 3-3, *Previously Considered Alternative Site Locations* (Community Center Parcel, Bell Shaped Parcel, Mammoth Creek Park West, Whitmore Park/Track, Field(s) and Pool, Parcel at Tavern and Sierra Park Road, and Civic Center Parcel). Prior information associated with the "Plan Your Parks" community driven effort was valuable to the ad hoc committee (i.e., the Recreation Commission, MLR and members of the Ad Hoc Facility Task Force) and served to inform their review of the alternatives. Opportunities and constraints were reviewed for each of the considered alternatives and summarized below:[1]

- *Community Center Parcel:* The Community Center Parcel incorporates 5.18 acres and includes a pocket-park with a new playground, six tennis courts, play and picnic areas, a pay phone and an inside meeting room, including kitchen, tables, chairs and restrooms, as well as the 2,550-square feet Community Center located at 1000 Forest Trail;[2] refer to Exhibit 3-3. The opportunities at the Community Center Parcel include the existing amenities comprised of the tennis courts, playground, community center, restrooms, and parking. It is also a facility located in town, and due to its location, it is protected from the wind. The constraints of the Community Center Parcel take into account its small size for the building, parking, and tennis courts, its higher elevation, and shade. The existing building is on lease and would require major modifications due to the facilities conditions. The ad hoc committee considered several issues if the proposed Multi-Use Facility was located at this parcel. The existing building is presently leased by the MCOE for educational programs. The site is considered a commercial hub for the community and would be already impacted. The Multi-Use Facility would displace the tennis courts and would require more parking. In addition, the existing tennis courts would be required to be rebuilt for $250,000 per court.

- *Bell Shaped Parcel:* The Bell Shaped Parcel is approximately 16.7 acres located at the southwest corner of the intersection of Minaret Road and Meridian Boulevard;[3] refer to Exhibit 3-3.

  Several trees surround a broad, open meadow with a wetland drainage meandering through the northern portion of the parcel. A second wetland area has been identified in the

[1] Town of Mammoth Lakes, *Mammoth Lakes Town Council Agenda October 21, 2015 Agenda Item #11,* October 13, 2015.

[2] Town of Mammoth Lakes, *Community Center, Park and Tennis Courts,* http://www.ci.mammoth-lakes.ca.us/index.aspx?NID=580, accessed June 24, 2016.

[3] Town of Mammoth Lakes, *Bell Shaped Parcel,* http://www.ci.mammoth-lakes.ca.us/index.aspx?NID=582, accessed June 24, 2016.

Source: Goolge Earth, 2016.

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NEW COMMUNITY MULTI-USE FACILITIES

Previously Considered Alternative Site Locations

Exhibit 3-3

southern portion of the parcel. The parcel is currently undeveloped. The opportunities at the Bell Shaped Parcel consist of its central location, access from trails and major roads, and its natural setting comprised of native flora and fauna. The constraints at the Bell Shaped Parcel include known wetland issues, as documented by the Los Angeles District, U.S. Army Corps of Engineers, *Preliminary Jurisdictional Determination Regarding Geographic Jurisdiction*, dated September 22, 2016. The ad hoc committee does not consider this as a viable option at this time due to the current designation of the site as open space, a strong disfavor from the community, and a lack of existing public infrastructure (parking, water, electricity, sewer connections, etc.) to support the site. Additional planning process, environmental review process, and other associated studies would be required in order to explore this option further.

- *Mammoth Creek Park West:* Mammoth Creek Park West includes a total of approximately 4.7 acres, with only two acres developed for public use, located along Old Mammoth Road;[4] refer to Exhibit 3-3. The opportunities at Mammoth Creek Park West include existing recreation and park facilities, restrooms, and parking. The site is located in town, adjacent to mixed uses, creek, trails, and provides access to public transportation. The constraints at Mammoth Creek Park West include its parking, proximity to residences, and the site is partially owned by the USFS [adjacent parcel to the south]. The ad hoc committee considered Mammoth Creek Park West a viable option due to the opportunity for complementary facilities to exist, for enhanced parking, the lower elevation related to snow, and the central location of the site supports the local community. In addition, the site has been envisioned for a public park and the proposed project would enhance current park play with no displacement of facilities and a desire to explore additional park space.

- *Whitmore Park/Track, Field(s) and Pool:* The Whitmore Recreation Area is located six miles south of Mammoth Lakes, off Highway 395 along Benton Crossing Road and includes the Whitmore Park, Track & Sports Field, Whitmore Pool and three ball fields;[5] refer to Exhibit 3-3. The Town has developed 10 acres of the total leased area (32.64 acres) for public and programmed use. The facility is leased from the Los Angeles Department of Water and Power (LADWP) and is operated by the Town of Mammoth Lakes. A shared facility maintenance agreement is also in effect with the County of Mono. The opportunities at the Whitmore Park/Track, Field(s) and Pool include the existing track and field, pool, and lighted ball fields, space for additional facilities and parking, and added clearance of snow. The constraints at the Whitmore Park/Track, Field(s) and Pool include visual, wind, and environmental impacts, increased travel and maintenance for the Town, and not being accessible to the community without vehicles or public transportation. The ad hoc committee considered the Whitmore Park/Track, Field(s) and Pool an inappropriate option due to a recent renewal of a long-term lease with a well based water element requiring LADWP and Los Angeles City Council to approve contracts and building infrastructure on leased land. Other concerns noted by the ad hoc committee include costs to winterize the facility, staffing challenges related to shared facilities and the distance from Town.

[4] Town of Mammoth Lakes, *Mammoth Creek Park East & West,* http://www.ci.mammoth-lakes.ca.us/index.aspx?NID=581, accessed June 24, 2016.

[5] Town of Mammoth Lakes, *Whitmore Recreation Area,* http://www.ci.mammoth-lakes.ca/us/index.aspx?NID=579, accessed June 24, 2016.

- *Trails End Park:* The Trails End Park is located on Meridian Boulevard approximately one-quarter mile south of the State Route 203 and Meridian Boulevard intersection, and adjacent to the Mammoth Industrial Park;[6] refer to Exhibit 3-3. The Trails End Park features a recently completed 40,000-square-foot skateboard park and more recreational features would be added in the future. The opportunities at the Trails End Park consist of complementary uses for the facility (skateboarding and rollerskating), and the addition of a stronger staffing presence. The constraints at the Trails End Park include the limited size and space, parking, and horseplay. As the Trails End Park is heavily used and close to completion, the ad hoc committee recommends that the project should be completed and built out as originally planned. As such, there would be no desire to relocate any park amenities.

- *Civic Center Parcel:* The Civic Center Parcel is on the east side of Sierra Park Road at the eastern extension of Tavern Road. It is bounded on the south by Mammoth Hospital and on the north by the Court building. It consists of approximately four acres under Town control. The opportunities at the Civic Center Parcel include that it is Town owned, has adequate space and a relationship with the recreational vehicle (RV) park. The constraints at the Civic Center Parcel include the need for infrastructure development. Additionally, the site was preplanned for government facilities. The Town and the County may consider the site for development of shared government facilities. The Town's new Police Station is currently under construction in the northeast portion of the site off Thompson Way. The ad hoc committee considered the Civic Center Parcel an inappropriate option as it does not support complementary facilities.

Ultimately, the Town's ad hoc committee recommended that the Multi-Use Facility be located at Mammoth Creek Park West with a complementary Community Center. It is noted that the review of potential sites did not include Shady Rest Park or Mammoth Creek Park East as the current USFS Special Use Permits under which these two sites are managed do not allow the construction of this type of permanent facility.

After extensive research and analysis, the group consensus was to recommend the Multi-Use Facility be located at Mammoth Creek Park West with the plan to include a Community Center as a complementary use, and not recommend the installation of a temporary shade structure at the existing facility, especially considering those funds could be used for the project.

PROJECT DESIGN/PROGRAMMING PROCESS

On January 6, 2016, the Town Council authorized consultant services agreements related to the preliminary design and environmental documentation for the project at Mammoth Creek Park West. Preliminary tasks focused on providing the desired community benefit while considering how best to mitigate potential impacts to the environment and neighboring land uses. On January 11, the Town kicked off the site planning process with HMC Architects. HMC reviewed available information, including previous staff reports, site information, historical data and comments to date from interested parties. HMC began the development of three site plan alternatives that were posted and remain available on the Town website for this project at www.PlanMCP.com. These

[6] Town of Mammoth Lakes, *Trails End Park and Volcom Brothers Skatepark,* http://www.ci.mammoth-lakes.ca.us/Facilities/Facility/Details/Trails-End-Park-and-Volcom-Brothers-Skat-5, accessed June 24, 2016.

were made available in advance of the initial public workshop on possible site plans held on January 29, 2016. HMC prepared and presented the three site plan alternatives for community review and discussion. Information was also presented regarding initial conceptions of building size (dimensions, height, massing) and use. The Recreation Commission is the Town Council's designated lead advisory body for the proposed project and actively engaged the community in assessing the programming needs and space alternatives of the facilities. The workshop was well attended and resulted in a list of comments, questions, and ideas. Questions received and preliminary responses were subsequently posted on the dedicated project website.

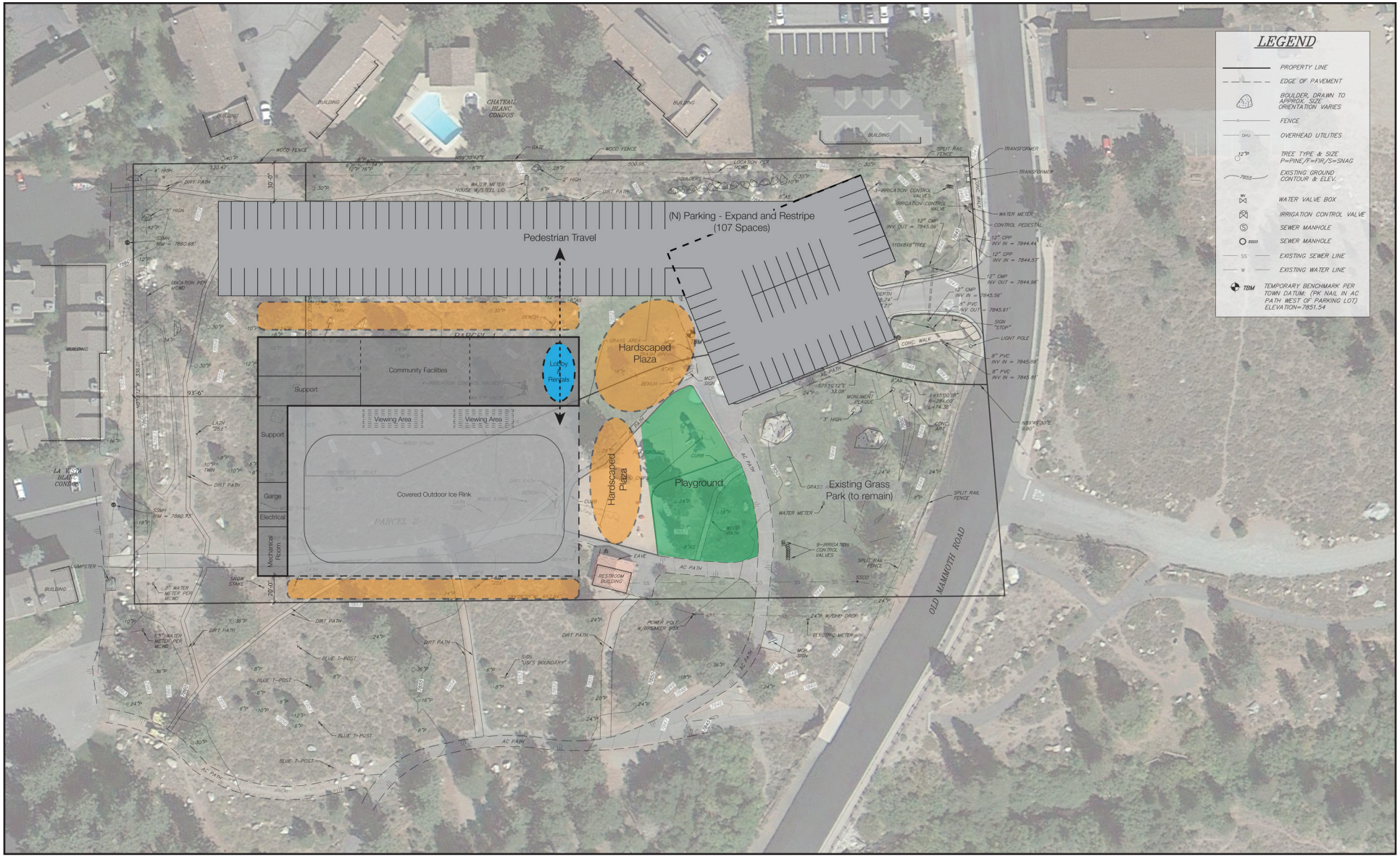
Before moving forward to select and refine a preferred site plan, additional information was gathered from public comments, discussions with stakeholders and the first sessions of the programming efforts. A preferred alternative was prepared that considered all input received. A follow up public site planning workshop was held on March 18, 2016. In advance of that meeting, an updated list of questions and responses was posted along with a preferred alternative.

In parallel with the site planning/preliminary design workshops discussed above, a series of public programming workshops have also been conducted. These six formal and facilitated workshops took place from February 22 through April 12, 2016. There was also a specific hockey workshop held in March 2016 as well as a workshop with the Town/County Youth Advisory Committee (YAC). The public was also invited to participate via an online survey tool available in both English and Spanish. The collated and summarized programming information (i.e., the "Playbooks") serve to inform the final site planning and preliminary design efforts, as well as final design.

3.3 PROJECT CHARACTERISTICS

3.3.1 PROJECT DESCRIPTION

The project consists of constructing new community multi-use facilities at the project site, encompassing a maximum 100-foot by 200-foot ice rink (winter)/recreation/event area (RecZone) covered by an approximately 30,000 square feet roof structure and additional storage and support space; as illustrated in Exhibit 3-4, *Conceptual Site Plan*. In addition, the proposed project includes a 13,000 square-foot complementary community center, reconfiguration and improvements to an existing playground to add accessible interactive components, restroom improvements, and 107 additional surface parking spaces. The project would also include an active outdoor recreation area to the west of the new community multi-use facilities. Upon project completion, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation. The proposed project components are described in more detail below.



Source: HMC Architects, dated March 10, 2016.

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MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Conceptual Site Plan

Exhibit 3-4

COMMUNITY CENTER

The proposed 13,000 square-foot complementary community center would include:

- A maximum of two large rooms (1,500 to 3,000 square feet) adjacent to the multi-use facility;
- An approximately 200 to 400 square-foot warming kitchen with concession space;
- An approximately 400 square feet of office space;
- An approximately 500 to 600 square-foot arts/crafts/play room;
- An approximately 300 to 400 square-foot meeting room;
- An approximately 600 to 800 square-foot multi-purpose room;
- Two to four locker rooms (approximately 400 square feet each);
- Americans with Disabilities Act (ADA) accessible restrooms;
- An approximately 400 to 600 square-foot storage room;
- A mechanical room (including storage, cleaning supplies, phone, electrical, internet, etc.); and
- Twenty to 40 wall lockers.

The community center would host a number of daily, weekly, monthly, and occasional community-based activities. The community center is an open facility for daily social interaction, frequently programmed community events with complementary space/amenities to support operations of the ice rink and Mammoth RecZone. Weekly scheduled programs include educational programs; adult and youth introductory fitness classes (e.g., dance, Zumba, gymnastics/tumbling, yoga); games (e.g., table tennis, foosball, air hockey); arts and crafts programs/camps; training/certification courses (e.g., first-aid training); family support groups; and seasonal theatre productions and rehearsal space. Monthly programs or special events include drop-in art programs; Technology, Entertainment, Design (TED) Talks; community and social holiday celebrations; fairs/festivals; rotating art gallery; and community variety/talent shows. The community center also schedules occasional activities and events such as facility rentals for small events/conferences, movie nights, and an after-dance teen hangout space. Community center operations would generally run between 6:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 10:00 p.m. to 12:00 a.m.

ICE RINK

The proposed ice rink would be open on two sides (to the south and east), oriented in an east-west direction, and would be up to 100-feet long by 200-feet wide. Viewing areas and bleachers would be included under the proposed roof structure. Areas for the ice preparation machine, chillers and storage of ice rink and RecZone equipment would be provided along the west boundary of the ice rink/RecZone. Space for skate rental, concessions and/or vending machines, Americans with Disabilities Act (ADA) accessible restrooms, and lockers for personal items would be included in the adjacent community center building. The ice rink would operate during the winter months (November to April), and would provide a number of daily, weekly, and monthly recreational activities. Daily or frequently programmed activities include recreational skating, youth and adult hockey, as well as programs for ice skating and figure skating. The ice rink would also host or schedule weekly programs including curling and skate programs, ice rentals for hockey, and birthday parties. Monthly programs or special events include community events, hockey tournaments, special programs/events, private facility rentals, and professional/club/college/school rentals and events.

Ice rink operations would generally run between 9:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 6:00 a.m. to 9:00 a.m. or 10:00 p.m. to 12:00 a.m.

MAMMOTH RECREATION ZONE

In the summer months (mid-May to mid-October) the multi-use facility would operate as the summer Mammoth RecZone. The Mammoth RecZone would be the home of Parks and Recreation Department summer camps and programs. The facility would offer daily and weekly programs, host monthly programs, and provide a venue for special events. Frequent youth and adult programmed court sports would be held at the facility including:

- Drop-in and league play for basketball, badminton, pickleball, small-sided soccer (futsal), volleyball, street hockey, dodgeball, and kickball;
- Adaptive sports (wheelchair basketball, pickleball, etc.);
- Summer sports camps (basketball, volleyball, soccer);
- Roller/inline skating; and
- Tennis.

Weekly programs scheduled at the facility include community area for sports teams and events, professional/club/college/school rentals, birthday parties, climbing wall, indoor cricket, and handball. Community events such as farmers market, art and music festivals, movie nights, holiday events, and special events. Special events may include, but are not limited to weddings, trade shows, birthday parties, small carnivals, and other private events.

Auxiliary equipment (i.e., sport court flooring, wind screens, scoreboards, athletic equipment, tables, chairs, etc.) would be required to operate the Mammoth RecZone. Mammoth RecZone operations would generally run between 6:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 10:00 p.m. to 12:00 a.m. The open area south of the Mammoth RecZone may also be used occasionally for access and seating for events.

PARK PLAYGROUND

The square footage of the existing playground on the project site would remain the same. However, some elements of the existing playground may be moved or new integrated and interactive features may be added. These playground elements include freestanding play, horizontal ladders/upper body peddlers, rubberized surfacing, adaptive swings, communication skills, sensory walls, and story circles. In addition, the existing bathroom at the Mammoth Creek Park West would be updated for year round use and to comply with ADA standards. The existing rock garden in the southeast portion of the project site would remain unchanged.

ACTIVE OUTDOOR RECREATION AREA

The area to the west of the proposed structures would be used as an active outdoor recreation area. Possible activities for this portion of the project site include a dog park, a BMX bicycle dirt track (during summer months), sledding hill (during winter months), and/or a community garden.

SPECIAL EVENTS

On occasion, special events may be hosted at the project site. Alcohol would be permitted to be served at special events with an Administrative Special Event Permit. Under this permit, additional security or other necessary measures (such as parking management plan) would be imposed on the event as part of the permit. No other sales of alcohol would occur and no additional infrastructure (i.e., outdoor lighting, etc.) would be installed for such special events.

PARKING

The existing surface parking lot in the northeast portion of the project site would be expanded westward across the northern portion of the project site, and would provide 107 additional parking spaces (for a total of 151 parking spaces to be provided on-site).

LANDSCAPING

The existing park grass within the southeastern portion of the project site would remain. In addition, the project proposes drought-tolerant landscaping to reduce water consumption on-site.

UTILITY CONNECTIONS

The proposed project would connect to existing utility (water and sewer) connections along Old Mammoth Road and within the project site. Sewer is available in Old Mammoth Road. Water is available on site by way of a water main that currently extends along the north and west boundaries. The Mammoth Lakes Fire Department would also utilize a proposed fire access road at Meadow Lane. This access point would be secured and limited to emergency access and periodic maintenance activities.

3.4 GOALS AND OBJECTIVES

Pursuant to Section 15124(b) of the *CEQA Guidelines*, the EIR project description must include "[a] statement of objectives sought by the proposed project… The statement of objectives should include the underlying purpose of the project."

The Town of Mammoth Lakes parks and recreation vision is to provide multi-purpose year-round, indoor and outdoor recreation opportunities accessible to all residents and visitors. It is the intent of the Town's parks and recreation system to promote personal health and well-being, foster community interaction, promote connectivity within and beyond the Town, nurture collaborative partnerships, and encourage appreciation of the Town's spectacular environment.

The Town's goals and objectives for the project are based on applicable Parks and Recreation Master Plan and the Parks, Open Space, and Recreation Element goals, policies, and tasks, as follows:

- *Goal 1:* Maintain parks and open space within and adjacent to Town for outdoor recreation and contemplation.

- *Goal 2:* Provide additional parks in Town.

- *Goal 4:* Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.

- *Goal 5:* Link parks and open space with a well-designed, year-round network of public corridors and trails within and surrounding Mammoth Lakes.

- *Goal 6:* Provide parks and recreational facilities and programs that foster a sense of community and nurture the emotional connection people have with each other and Mammoth Lakes.

- *Tasks:* To meet the recreation needs of residents and visitors into the future, the Town of Mammoth Lakes will need to increase the maintenance level of existing parks and recreation facilities, upgrade existing parks, add more usable park acreage, and develop additional facilities to address unmet recreation needs. More specifically, the Town should:

  - Design additional park improvements and recreation facilities to meet recreation needs in all seasons. These facilities include (in alphabetical order):

    - Aquatic center;
    - Dog park;
    - Event and performance venues;
    - Picnic areas;
    - Multi-use recreational/cultural facility;
    - Snow and winter play areas; and
    - Sports fields and courts.

Recreational Opportunities

P.4. Goal: Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.

P.4.B. Policy: Provide an affordable and wide range of year-round recreational opportunities to foster a healthy community for residents and visitors. Activities include but are not limited to:[7]

- Ice skating;
- Snow play;
- Walking;
- Fall-color viewing;
- Birding;
- Health & fitness; and
- BMX.

[7] P.4.B. Policy lists 29 activities. Those listed are contemplated for this project.

Connected Throughout

P.5. Goal: Link parks and open space with a well-designed year-round network of public corridors and trails within and surrounding Mammoth Lakes.

P.5.E. Policy: Design parks and open space to be accessible and usable except when set aside for preservation of natural resources, health and safety.

P.5.G. Policy: Identify, zone and procure land for new and expanded parklands including:[8]

- Community gardens;
- Streamside parks;
- Active parks;
- Open space;
- Snow play;
- Festival and special events areas; and
- Passive parks.

In order to meet the Task for Goal 6 identified above, the Town set a goal to provide a roof over the Town-operated ice rink/RecZone, thereby extending the winter seasonal use and enhancing the summer seasonal uses. It is also the intent of the Town's Council to provide complementary facilities at the Town's ice rink/RecZone.

3.5 PHASING/CONSTRUCTION

Construction of the proposed project is anticipated to occur in three phases, with phases 1 and 2 possibly being constructed concurrently, beginning in June 2017 and concluding in February 2023, as described below:

Phase 1
- Reconfiguration of the playground improving accessibility as far as access and adding more inclusive elements;
- Hardscape, softscape plaza, and gathering areas;
- Gathering and viewing areas;
- Active uses including a community garden, snow play hill, and small BMX training track;
- Approximately 30,000 square feet associated with the multi-use facility ice rink/RecZone; and
- Support, storage, and equipment areas.

Phase 2
- Approximately 50 parking spaces;
- Hardscape, softscape plaza, and gathering areas; and
- Approximately 5,000 square feet of community center facilities.

[8] P.5.G. Policy lists 11 activities. Those listed are contemplated for this project.

Phase 3

- 57 parking spaces;
- Hardscape, softscape plaza, and gathering areas; and
- 8,000 square feet of flexible community center facilities.

It is noted that construction hauling/access would periodically occur along both Old Mammoth Road and Meadow Lane.

3.6 AGREEMENTS, PERMITS, AND APPROVALS

The Town of Mammoth Lakes is the Lead Agency for the project and has discretionary authority over the project proposal, which includes the following:

- Environmental Review
  - Certification of the Environmental Impact Report.

- Discretionary Permits
  - Major Design Review;
    - Site Plan Review; and
    - Architectural Review.

- Ministerial Permits
  - Grading Permit; and
  - Building Permit.

- Administrative Permit
  - Special Event Permit (on an as needed basis).

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4.0 Basis of Cumulative Analysis

4.0 BASIS OF CUMULATIVE ANALYSIS

Section 15355 of the *CEQA Guidelines*, as amended, provides the following definition of cumulative impacts:

> *"Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*

Pursuant to Section 15130(a) of the *CEQA Guidelines*, cumulative impacts of a project shall be discussed when they are "cumulatively considerable," as defined in Section 15065(a)(3) of the *CEQA Guidelines*. Section 5.0, *Environmental Analysis*, of this EIR assesses cumulative impacts for each applicable environmental issue, and does so to a degree that reflects each impact's severity and likelihood of occurrence.

As indicated above, a cumulative impact involves two or more individual effects. Per *CEQA Guidelines* Section 15130(b), the discussion of cumulative impacts shall be guided by the standards of practicality and reasonableness, and should include the following elements in its discussion of significant cumulative impacts:

1. *Either:*

   A. *A list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Agency, or*

   B. *A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projects may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.*

2. *When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.*

3. *Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.*

4. *A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and*

5. *A reasonable analysis of the cumulative impacts of the relevant projects, including examination of reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.*

Table 4-1, *Cumulative Projects List*, and Exhibit 4-1, *Cumulative Projects Map*, identify the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. The following list of projects was developed by the Town of Mammoth Lakes. The implementation of each project represented in Table 4-1 was determined to be reasonably foreseeable by the Town.

Table 4-1
Cumulative Projects List

No.[1]	Project	Location	Proposed Project
1	Student Housing	1500 College Parkway	• 74 student housing residential dwelling units • Lounge • Reception area • Exercise room • Storage • 112 parking spaces
2	Altis	880 Bridges Lane	• 9 single family lots
3	Eagle Lodge	3256 Meridian Boulevard	• 106 residential (dwelling unit equivalents) • Ski lodge
4	Holiday Haus	3863 and 3905 Main Street	• 77 hotel units with 120 market rate hotel bedrooms • 14 workforce residential units • 2,605 sf conference space • 4,380 sf outdoor patio • Snow play area • Indoor pool, hot tubs • Exercise area • 138 parking spaces
5	Mammoth View	41 Alpine Circle, 11 Alpine Circle, 200 Mountain Boulevard, 30 Viewpoint Road, 52 Viewpoint Road, 76 Viewpoint Road, and 100 Viewpoint Road	• 54 hotel units with 54 hotel bedrooms • 52 residential units • 2,176 sf restaurant and bar • Spa building, pool • Picnic areas • Lobby • Restaurant • 174 parking spaces
6	Old Mammoth Place	164, 202, and 248 Old Mammoth Road	• 343 hotel units with 488 hotel bedrooms • 36,599 commercial sf including retail and restaurant • Public plazas • 14,500 sf conference space • Spa, pool • 597 parking spaces

Table 4-1 [continued]
Cumulative Projects List

No.[1]	Project	Location	Proposed Project
7	Inn at the Village	50 Canyon Boulevard	• 67 hotel units with 67 hotel bedrooms • Spa, outdoor pool and Jacuzzi • Pedestrian porte-cochere • Pocket park • Information kiosk • Zen garden • 171 parking spaces
8	Mammoth Crossing	Northwest, southwest, and southeast corners Main Street/Lake Mary Road and Minaret Road	• 742 hotel bedrooms • 66 workforce housing (bedrooms) • 40,500 commercial sf • 9,000 sf conference and meeting space • Pool, spa • Restaurants/bars • Public plaza • 100 parking spaces in addition to those required for project
9	Mammoth Hillside Phase I	107 Lakeview Boulevard, 106 Lake Mary Road, 5 Canyon Boulevard, 15 Lake Mary Road, 17 Canyon Boulevard, and 49 Canyon Boulevard	• 225 hotel units with 325 hotel bedrooms • 24 workforce housing • Spa/fitness area, pool • 6,300 sf conference space • 259 parking spaces
10	North Village Specific Plan Parking Structure / Lot	99 Canyon Boulevard	• 38 parking spaces
11	South Hotel	6244 Minaret Road, 6220 Minaret Road, 111 Berner Street, 6180 Minaret Road, 6156 Minaret Road, and 6158 Minaret Road	• 251 hotel units with 299 hotel bedrooms • 5,300 sf restaurant • 1,000 sf commercial • 4,100 sf conference space • Lobby • Bar • Spa • 292 parking spaces
12	Ettinger Condominiums	2144 Old Mammoth Road	• 10 residential units • 25 parking spaces
13	Tallus	525 Obsidian Place	• 34 residential units (9 single-family residences, 12 duplexes, 1 transient rental unit, 1 on-site manager's unit • Clubhouse
14	Tanavista	5880 Minaret Road	• 45 residential units
15	Tihana Townhomes	48 Lupin Street	• 9 residential units
16	Snowcreek VII	85 Old Mammoth Road and 1254 Old Mammoth Road	• 118 residential units • Recreation room

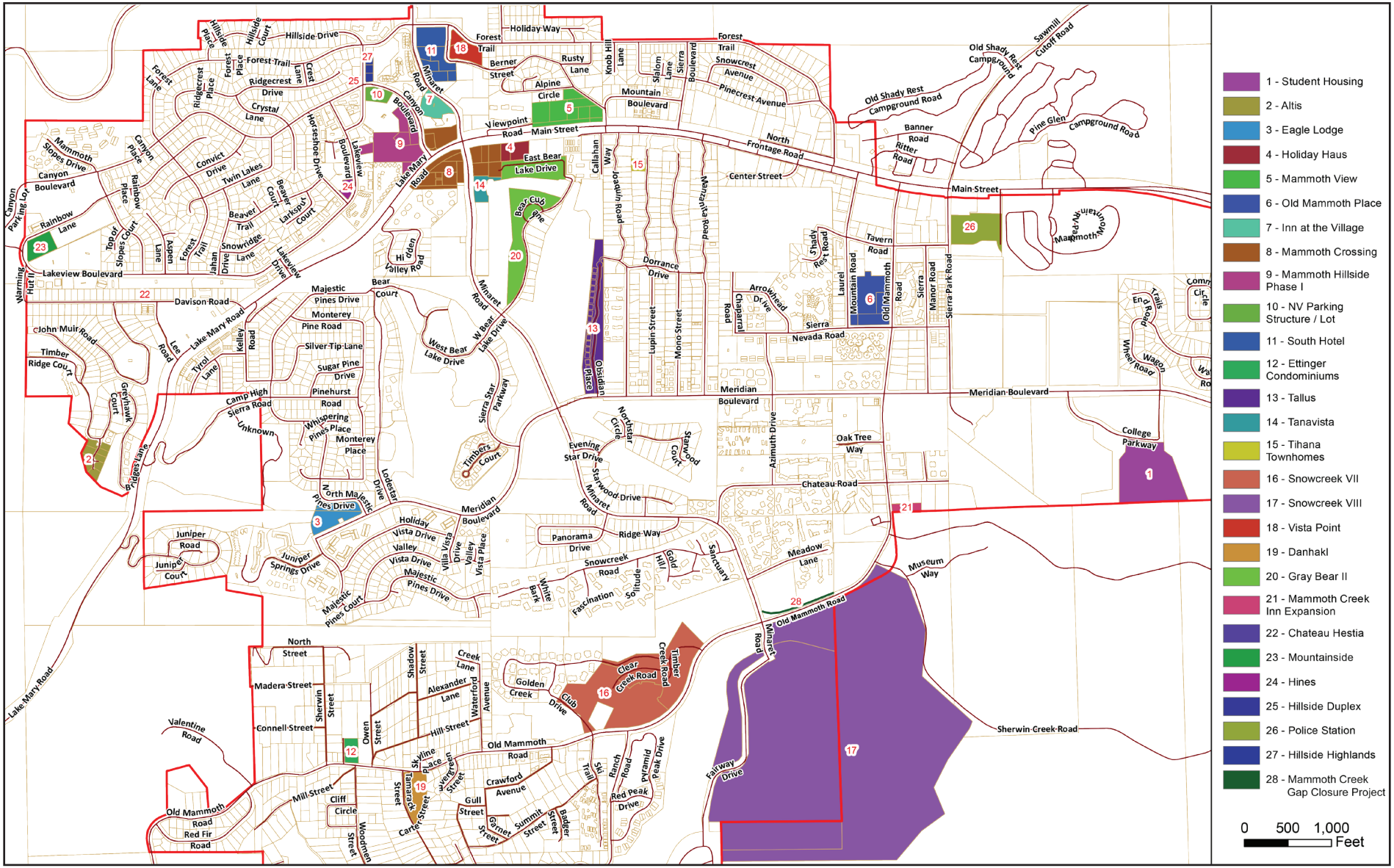
Table 4-1 [continued]
Cumulative Projects List

No.[1]	Project	Location	Proposed Project
17	Snowcreek VIII	South of Old Mammoth Road/East of Fairway Road	• 790 residential units • 200 hotel units with 400 hotel rooms • 10,000 sf hotel associated retail • 10,000 sf restaurants, bars/lounges • 25,000 sf conference and meeting space • 12,900 sf spa/wellness center • 3,500 sf market • 2nd 9 holes of Snowcreek Golf Course
18	Vista Point	94 and 151 Berner Street	• 28 hotel units with 101 hotel bedrooms • Owners' lounge • Rooftop pool and terrace • Locker rooms • Pedestrian plaza • 60 parking spaces
19	Danhakl	70 Carter Street	• Subdivision of one lot into 2 single family lots
20	Gray Bear II	1501 E Bear Lake Drive and 1001 E Bear Lake Drive	• 32 residential units
21	Mammoth Creek Inn Expansion	663 Old Mammoth Road	• 12 hotel units with 12 condo hotel rooms
22	Chalet Hestia	196 Davison Road	• 3 residential units
23	Mountainside	413 Rainbow Lane	• 16 residential units (2 single-family residences and 7 duplexes)
24	Hines	176 Lakeview Boulevard and 195 Horseshoe Drive	• 4 residential units
25	Hillside Duplex	113 Hillside Drive	• 2 residential units
26	Police Station	280 Thompsons Way	• 5,400 sf police station • 33 parking spaces
27	Hillside Highlands	150 Hillside Drive, 130 Hillside Drive, and 110 Canyon Boulevard	• 9 residential units • 27 parking spaces
28	Mammoth Creek Gap Closure Project	Near the intersection of Old Mammoth Road and Minaret Road	• Proposed construction of a bicycle path to connect a gap in the town loop bike path system.

Note:
1. The cumulative projects list represents projects that are either approved/entitled, under construction, or in process. Projects that are completed are not included in this list.

Regarding the forecast cumulative conditions for the Traffic Impact Analysis, the Town of Mammoth Lakes Travel Demand Model was recently updated as part of the Mammoth Mobility Element EIR. During this process several model alternatives were developed. Town staff have directed that the 'future model with new floor area ratio (FAR) and with the new Mobility Element' version should be used for purposes of cumulative analyses. The Mammoth Creek Park site is in the Mammoth Travel Model as Traffic Analysis Zone (TAZ) 140. The existing model land uses in TAZ 140 are 12 acres of Public Utilities, which remains the same in the future model. In other words, the model estimates no additional land uses would be constructed in this area. Therefore, the proposed project would be above and beyond the future model's estimation.

Future turning movement volumes were pulled from the Model for all study intersections with the exception of the site access driveway, as this intersection is not represented in the model. Future volumes entering and exiting the proposed site would remain unchanged in the future without the project.



Source: Town of Mammoth Lakes, *Cumulative Projects Map*, dated June 28, 2016.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Cumulative Projects Map

Exhibit 4-1

5.0 Environmental Analysis

5.0 ENVIRONMENTAL ANALYSIS

The following subsections of the EIR contain a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short-term, long-term, and cumulative impacts), recommended mitigation measures and unavoidable significant impacts. The EIR analyzes those environmental issue areas where potentially significant impacts may occur, as stated in Appendix 11.1, *Initial Study/Notice of Preparation and Comment Letters*.

The EIR examines environmental factors outlined in Appendix G of the *CEQA Guidelines*, *Environmental Checklist Form*, as follows:

5.1 Land Use and Relevant Planning;
5.2 Aesthetics/Light and Glare;
5.3 Biological Resources;
5.4 Cultural Resources;
5.5 Traffic and Circulation;
5.6 Air Quality;
5.7 Greenhouse Gas Emissions;
5.8 Noise; and
5.9 Hydrology and Water Quality.

Other environmental topical areas are addressed in Section 8.0, *Effects Found Not To Be Significant*.

Each environmental issue is addressed in a separate section of the EIR and is organized into six sections, as follows:

- "Existing Setting" describes the physical conditions that exist at the present time and that may influence or affect the issue under investigation.

- "Regulatory Setting" lists and discusses the laws, ordinances, regulations, and standards that apply to the project.

- "Impact Thresholds and Significance Criteria" provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in Appendix G of the CEQA Guidelines (California Code of Regulations, Sections 15000 – 15387).

  Primary sources used in identifying the criteria include the *CEQA Guidelines*; local, State, Federal, or other standards applicable to an impact category; and officially established significance thresholds. ". . . An ironclad definition of significant effect is not possible because the significance of any activity may vary with the setting" (*CEQA Guidelines* Section 15064[b]). Principally, ". . . a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance" constitutes a significant impact (*CEQA Guidelines* Section 15382).

- "Impacts and Mitigation Measures" describes potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented. Evidence, based on factual and scientific data, is presented to show the cause and effect relationship between the proposed project and the potential changes in the environment. The exact magnitude, duration, extent, frequency, range or other parameters of a potential impact are ascertained, to the extent possible, to determine whether impacts may be significant; all of the potential direct and reasonably foreseeable indirect effects are considered.

  Impacts are generally classified as potentially significant impacts, less than significant impacts, or no impact. The "Level of Significance After Mitigation" identifies the impacts that would remain after the application of mitigation measures, and whether the remaining impacts are or are not considered significant. When these impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered less than significant, they are identified as "unavoidable significant impacts."

  "Mitigation Measures" are measures that would be required of the project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment.

- "Cumulative Impacts" describes potential environmental changes to the existing physical conditions that may occur as a result of the proposed project together with all other reasonably foreseeable, planned, and approved future projects producing related or cumulative impacts.

- "Significant Unavoidable Impacts" describes impacts that would be significant and cannot be feasibly mitigated to less than significant, and thus would be unavoidable. To approve a project with unavoidable significant impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to approve the project. If the benefits of a project are found to outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable" (*CEQA Guidelines* Section 15093[a]).

5.1 Land Use and Relevant Planning

5.1 LAND USE AND RELEVANT PLANNING

This section identifies the existing land use conditions, evaluates the project's consistency with relevant planning policies, and recommends mitigation measures that would avoid or lessen the significance of potential impacts. This section identifies on-site and surrounding land use conditions and relevant land use policies and regulations, as set forth by the Town of Mammoth Lakes (Town). Information in this section is based in part upon the *Town of Mammoth Lakes General Plan 2007* (General Plan), the *Town of Mammoth Lakes Municipal Code* (Municipal Code), and the *Town of Mammoth Lakes Parks and Recreation Master Plan* (Parks and Recreation Master Plan), adopted February 1, 2012.

5.1.1 EXISTING SETTING

ON-SITE LAND USES

The project site is comprised of Mammoth Creek Park West, which currently includes playground equipment, grass/open space, picnic areas, trail connections, and a surface parking lot for 44 vehicles. Based on the *Town of Mammoth Lakes General Plan 2007* (General Plan) Land Use Map, the project site is designated Open Space (OS). Based on the Town's Zoning Map, the project site is zoned Public and Quasi Public (P-QP).

SURROUNDING LAND USES

The land uses that surround the project site are further described below.

- *North:* Commercial/office uses, including The Stove restaurant and Mammoth Dental office, and multi-family residential uses (Chateau Blanc Condominiums) are located to the north of the project site. The General Plan land use designation to the north is Commercial 2 (C-2) and High Density Residential 2 (HDR-2). The zoning districts to the north are Old Mammoth Road (OMR) and Residential Multi-Family 2 (RMF-2).

- *East:* Open space/recreational trail uses (Town Loop trail), Mammoth Creek, Mammoth Creek Park East, and Old Mammoth Road are located to the east of the project site. The General Plan land use designation to the east is National Forest (NF), which is applied to lands administered by the Inyo National Forest owned by the United States Forest Service (USFS) that are outside the adopted urban growth boundary. Zoning districts are not applicable to the uses adjoining the project site to the east, as these uses are associated with the Inyo National Forest.

- *South:* The southern portion of Mammoth Creek Park West [owned by the USFS and in part under a Special Use Permit to the Town], open space/recreational trail uses (Town Loop trail), and Mammoth Creek bound the project site to the south. In addition, Old Mammoth Road is located further to the south. The General Plan land use designation is OS. The zoning district is P-QP with an Open Space/Stream Corridor overlay.

- *West:* Multi-family residential uses (La Visa Blanc Condominiums bound the project site to the west. Mammoth Creek Condominiums are situated further southwest of the project site. The General Plan land use designation to the west and southwest are HDR-2. The zoning district to the west and southwest are RMF-2 and RMF-2 with an Open Space/Stream Corridor overlay respectively.

5.1.2 REGULATORY SETTING

LOCAL LEVEL

Town of Mammoth Lakes General Plan

The General Plan establishes standards, guidelines, and priorities that define the Mammoth Lakes community now and for the future. The "Community Vision" for Mammoth Lakes embodies values and principles that recognize the uniqueness of its natural surroundings and character as a "village in the trees."

The General Plan is organized by elements. Each element is introduced with an explanation of the intent of the goals, policies, and actions within that element. The General Plan contains the following elements:

- Economy Element;
- Arts, Culture, Heritage, and Natural History Element;
- Community Design Element;
- Neighborhood and District Character Element;
- Land Use Element;
- Mobility Element;
- Parks, Open Space and Recreation Element;
- Resource Management and Conservation Element; and
- Public Health and Safety Element.

It is noted that the Noise Element was not updated as part of the General Plan. Additionally, the 1990 Parks and Recreation Element was not formally superseded with the Parks, Open Space, and Recreation Element; however, in 2012 the Parks, Open Space, and Recreation Element was amended and the 1990 Parks and Recreation Element was revoked.

The Town adopted the General Plan Housing Element Update on June 18, 2014. The Housing Element covers the planning period from 2014 to 2019 and establishes goals, policies, and programs that help the Town meet its share of the regional housing need.

The General Plan Elements relevant to the proposed project are further discussed below. The General Plan goals and policies relevant to the proposed project are outlined in Table 5.1-1, *General Plan Policy Consistency Analysis*, provided in Section 5.1.4, *Impacts and Mitigation Measures*, below.

COMMUNITY DESIGN ELEMENT

The Community Design Element's goals and policies describe the relationship between people and the man-made and natural environment. Because the community is set within the forest, the trees and natural landscape are prominent, create a sense of scale, and set a strong aesthetic character. Topography, vegetation, existing buildings, and open spaces create the structure and pattern of Mammoth Lakes.

Figure 1, *Major View Corridors and Vistas*, of the General Plan identifies the important scenic resources and depicts the major view corridors and vistas throughout Mammoth Lakes. Scenic western views of Mammoth Mountain, and southern views of the Sherwin Range and Mammoth Crest are afforded from the project site. Refer to Section 5.2, *Aesthetics/Light and Glare*, for further discussion regarding aesthetic resources potentially occurring in the project area.

NEIGHBORHOOD AND DISTRICT CHARACTER ELEMENT

The Neighborhood and District Character Element addresses the development of individual sites and districts in order to enhance the unique character of Mammoth Lakes.

Districts. The General Plan denotes that the Town is comprised of 12 districts and four mountain portals. District boundaries are based on the 1987 General Plan Planning Districts and are defined by existing development, patterns of vegetation, topographic features, circulation patterns, and the relationships of land uses. According to Figure 3, *Neighborhood Character Map*, of the General Plan, the project site is within the Snowcreek District. This Element summarizes the desired characteristics and roles of the districts where the greatest amount of change is expected to occur. Snowcreek District objectives that are particularly relevant to the proposed project in the context of land use are outlined in Table 5.1-1.

LAND USE ELEMENT

The policies of the Land Use Element describe and determine how the community would retain its community character and small town atmosphere, while enhancing its success as a destination resort. An overarching principle of the community is to maintain the Town's compact urban form, protect natural and outdoor recreation resources, and prevent sprawl. The Land Use Element policies relevant to the proposed project are outlined in Table 5.1-1.

The Town established the Urban Growth Boundary (UGB) limiting the area available for future development to achieve these principles. Figure 4, *Planning Area, Municipal, and Urban Growth Boundaries*, of the General Plan, illustrates the Planning Area, Municipal, and Urban Growth Boundaries and indicates the project site is located within all three boundaries.

District Planning. Some areas of the community have special needs or conditions that would benefit from detailed investigation to address issues such as allowable land use patterns, design standards, zoning codes, and other property development standards and protections. The General Plan designates underlying land use and character designations for these areas, until such time as the district plans are completed and subsequent development standards are adopted; refer to the *Neighborhood and District Character Element* discussion above.

Land Use Designations. The distribution of land use designations throughout the Town are illustrated on Figure 5, *Land Use Diagram*, of the General Plan. According to Figure 5, the project site is designated Open Space (OS), which is described as follows:

> *This designation is established to protect the community's public and private open space resources. It is intended to preserve existing parks and encourage future parks, maximize recreation opportunities, preserve open space, and protect sensitive environmental resources. Facilities that support the environmental and recreational objectives of the community are permitted. The designation may apply to environmentally sensitive areas such as wetlands, floodplains, and streams. This designation allows parks, athletic fields, golf courses, community gathering spaces and supporting facilities. The designation also applies to the Bell Shaped Parcel and patented mining claims located in the Sherwin Range.*

Buildout. The Land Use Element addresses buildout forecast for the 20-year planning period of the General Plan. The analysis projected that the total number of residents, visitors, and workers on a winter weekend would grow to between 45,000 to 52,000 by the year 2025. Based on these analyses, the General Plan establishes a policy of a total peak population of residents, visitors, and employees at 52,000 persons.

MOBILITY ELEMENT

The Mobility Element describes how the Town achieves a progressive and integrated multi-modal transportation system, one that serves the various needs of residents, employees, and visitors. Appendix D of the General Plan describes the Town's circulation and specifies the roadway classifications used in the Town. The General Bikeway Plan, adopted April 16, 2014, guides the future development of bicycle facilities and programs in the town. Its recommendations would facilitate bicycling for transportation and recreation and help attain the goals identified in the Mobility Element. The *Town of Mammoth Lakes Trail System Master Plan* (Trail System Master Plan), adopted October 19, 2011, envisions an integrated system of infrastructure and programs that support recreation and mobility simultaneously, by seamlessly connecting homes, hotels, businesses, recreation nodes, and backcountry experiences with a strong focus on providing facilities that would improve access to trails from all modes of transportation. Refer to Section 5.5, *Traffic and Circulation*, for a discussion regarding the project area's transportation system.

PARKS, OPEN SPACE, AND RECREATION ELEMENT

The Parks, Open Space, and Recreation Element, amended in 2012, identifies parks, open space, and recreational opportunities as critical to residents and to the success of Mammoth Lakes tourism-based economy. It emphasizes a wide variety of outdoor winter and summer activities, as well as the integration of surrounding public lands through points of public access. Refer to Section 8.0, *Effects Found Not To Be Significant*, for discussions regarding recreation and public services (e.g., parks).

RESOURCE MANAGEMENT AND CONSERVATION ELEMENT

The Resource Management and Conservation Element establishes and emphasizes the Town's stewardship of the community's natural resources. The Element establishes goals and policies to wisely manage resources and to establish the Town as a leader in managing and conserving its resources. Refer to Section 5.3, *Biological Resources,* for discussions regarding biological resources. Refer

to Section 5.6, *Air Quality*, and Section 5.7, *Greenhouse Gas Emissions*, for discussions regarding air quality, greenhouse gas emissions, and energy conservation. Refer to Section 8.0, *Effects Found Not To Be Significant*, for discussions regarding water resources and solid waste.

PUBLIC HEALTH AND SAFETY ELEMENT

The Public Health and Safety Element addresses the Town's quality of life to encourage people to live and work in the Town. Issues addressed in this Element include public health, public safety, hazards, emergency preparedness, education, and public facilities and services. Refer to Section 8.0, *Effects Found Not To Be Significant*, for discussions regarding public health, public safety, hazards, emergency preparedness, education, public facilities and services.

NOISE ELEMENT

The Noise Element provides a policy framework for addressing potential noise impacts encountered in the planning process. The content of a Noise Element and the methods used in its preparation have been determined by the requirements of Section 65302 (f) of the California Government Code and by the *State of California General Plan Guidelines* (General Plan Guidelines) published by the California Office of Planning and Research in 1990. The General Plan Guidelines require that major noise sources and areas containing noise-sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected conditions.

The Noise Element was not updated as part of the General Plan; however, additional overlapping statements were included to maintain consistency and assist in completing future updates to the General Plan. The goals and policies from the Community Design Element describe the relationship between people and the man-made and natural environment. Refer to Section 5.8, *Noise*, for a discussion of the existing noise environment and Town standards.

Town of Mammoth Lakes Municipal Code

MUNICIPAL CODE TITLE 17, ZONING

Title 17, *Zoning*, of the Municipal Code (codified through Ordinance No. 14-02, passed March 19, 2014 and effective May 2, 2014) (Zoning Code), provides the legislative framework to enhance and implement the goals, policies, plans, principles, and standards of the General Plan. The Zoning Code, which establishes classifications of zones and regulations within these zones, was established and adopted by the Town Council "to protect and to promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents, and business in the Town."

The Town is divided into zones in order to classify, regulate, restrict, and separate the use of land, buildings and structures; to regulate and to limit the type, height, and bulk of buildings and structures in the various districts; to regulate areas of yards and other open areas abutting and between buildings and structures; and to regulate the density of population. According to the Town's official Zoning Map, the project site is zoned P-QP.

Zoning Code Chapter 17.88, *Design Review*. Chapter 17.88 implements the design review procedural requirements of the Town of Mammoth Lakes Design Guidelines. Specifically, the design review requirements are included to achieve the following purposes:

- Implement the goals, policies and objectives of the General Plan related to community design and character;
- Promote excellence in site planning and design and the harmonious appearance of buildings and sites and ensure the man-made environment is designed to complement, not dominate, the natural environment;
- Regulate the design, coloration, materials, illumination, and landscaping of new construction, and renovations within the Town in order to maintain and enhance the image, attractiveness, and environmental qualities of the Town as a mountain resort community;
- Ensure that new landscaping provides a visually pleasing setting for structures on the site and within the public right-of way and to prevent indiscriminate destruction of trees and natural vegetation, excessive or unsightly grading, indiscriminate clearing of property, and destruction of natural significant landforms;
- Ensure that the architectural design of structures and their materials and colors are appropriate to the function of the project and the high-elevation climate of Mammoth Lakes and are visually harmonious with surrounding development and natural landforms, trees, and vegetation; and
- Supplement other Town regulations and standards in order to ensure control of aspects of design that are not otherwise addressed.

Pursuant to Section 17.88.020, *Applicability*, design review is required for new construction, reconstruction, rehabilitation, alteration, or other projects involving improvements to the exterior of a structure, site, or parking area.

The Town's Design Guidelines adopted by the Town Council provide recommendations to be used in the design review process. They are intended to promote high-quality and thoughtful site and building design; visually interesting, appropriate, well-crafted and maintained buildings and landscaping; the use of durable high-quality, and natural materials that reflect Mammoth Lakes' character and mountain setting; and attention to the design and execution of building details and amenities in both public and private projects.

The Planning and Economic Development Commission (PEDC) has design review authority for all projects requiring major design review. Pursuant to Section 17.88.040, *Scope of Design Review*, design review considers the design of the site plan, structures, lighting, landscaping, and other physical features of a proposed project, including:

- Building proportions, massing, and architectural details;

- Site design, orientation, location, and architectural design of buildings relative to existing structures, outdoor areas, walkways, trails, and streets on or adjacent to the property; topography; trees and vegetation; and other physical features of the natural and built environment;

- Size, location, design, development, and arrangement of circulation, parking, pedestrian ways, and other paved areas;

- Exterior colors and materials as they relate to each other, to the overall appearance of the project, the mountain environment, and to surrounding development;

- Height, materials, colors, and variety of fences, walls, and screen plantings;

- Location and screening of mechanical equipment and refuse storage areas;

- Location, design, and compliance of exterior lighting features;

- Location and type of landscaping including selection, size, and water-efficiency of plant materials, design of hardscape, and irrigation; and

- Size, location, design, color, lighting, and materials of all signs.

Pursuant to Section 17.88.050, *Design Review Criteria*, when conducting design review, the review authority evaluates applications to ensure that they satisfy the following criteria, conform to the policies of the General Plan and any applicable specific or master plan, the Town's Design Guidelines, and are consistent with any other policies or guidelines the Town Council may adopt for this purpose. To obtain design review approval, projects must satisfy these criteria to the extent that they apply.

- The site design and building design elements including the architectural style, size, design quality, use of building materials, and similar elements, combine together in an attractive and visually cohesive manner that is compatible with and complements the desired architectural and/or aesthetic character of the area and a mountain resort community, encourages increased pedestrian activity, and promotes compatibility among neighboring land uses.

- The design of streetscapes, including street trees, lighting, and pedestrian furniture, is consistent with the character of commercial districts and nearby residential neighborhoods.

- Parking areas are located, designed and developed to foster and implement the planned mobility system for the area; buffer surrounding land uses; minimize visibility; prevent conflicts between vehicles and pedestrians and cyclists; minimize storm water run-off and the heat-island effect; and achieve a safe, efficient, and harmonious development.

- Down-directed and shielded lighting and lighting fixtures are designed to complement buildings, be of appropriate scale, provide adequate light over walkways and parking areas to create a sense of pedestrian safety, minimize light pollution and trespass, and avoid creating glare.

- Landscaping is designed to conserve water resources, promotes a natural aesthetic, and be compatible with and enhance the architectural character and features of the buildings on site, and help relate the building to the surrounding landscape.

The Town of Mammoth Lakes Parks and Recreation Master Plan

The *Town of Mammoth Lakes Parks and Recreation Master Plan* (Parks and Recreation Master Plan) was adopted February 1, 2012, to outline a vision of parks and recreation facilities to serve the year-round recreational needs of the Town of Mammoth Lakes, while also reinforcing the expressly stated values of the Mammoth Lakes community. As an updated vision for parks and recreation, it may be used to replace the 1990 Parks and Recreation Element of the Town's General Plan. It is anticipated that parks and recreation would be coordinated with the Town's trails, which would undergo a separate planning process in the near future. The Parks and Recreation Master Plan is an outcome of a collaborative process and provides the following: an assessment of existing parks and recreation facilities; a presentation of goals and policies that reflect community values; an analysis of parkland and recreation facility needs; recommendations of parks and recreation facilities to address unmet community needs, and an implementation and phasing strategy that considers funding and partnerships.

The Town of Mammoth Lakes Trail System Master Plan

The *Town of Mammoth Lakes Trail System Master Plan* (Trail System Master Plan) was adopted October 19, 2011, with a strong focus on providing facilities that will improve access to trails from all modes of transportation. In addition to new trails, paved pathways, signage and wayfinding and associated amenities, the Trail System Master Plan includes suggestions for other improvements such as sidewalks, crosswalks, bus stops, bike lanes, bicycle parking, summer maintenance, and snow removal. The Trail System Master Plan replaces the former Trail System Plan and is consistent with the Town's General Plan. The Trail System Master Plan focuses on the trail system plan within the Town's Urban Growth Boundary (UGB) and contains thorough analysis and evaluation of existing conditions, public input/surveys, gap analysis and potential recommendations for future implementation. In addition, it provides a Soft-Surface Trails Concept to help define the interface potential between the UGB and the public lands outside the boundary. Refer to Section 8.0, *Effects Found Not To Be Significant*, for discussions regarding bicycle and pedestrian facilities.

Town of Mammoth Lakes Pedestrian Master Plan

The *Town of Mammoth Lakes Pedestrian Master Plan* (Pedestrian Master Plan), adopted April 16, 2014, serves as an update to the Town's Sidewalk Master Plan and guides the future development and enhancement of pedestrian facilities within the Town. It is intended to follow the General Plan Mobility Element goals, policies, and actions related to pedestrian infrastructure. The Pedestrian Master Plan focuses on the triple-bottom-line, which is where transportation complements the community's social, economic, and natural capital and seeks to implement feet-first transportation, which emphasizes and prioritizes: 1) non-motorized travel; 2) public transportation; and 3) vehicles. The Pedestrian Master Plan inventories existing infrastructure, assesses current and future needs, and makes recommendations for the funding and implementation of projects. Refer to Section 8.0, *Effects Found Not To Be Significant*, for further discussion regarding pedestrian facilities.

Town of Mammoth Lakes Bikeway Plan Update

The *Town of Mammoth Lakes Bikeway Plan Update* (Bikeway Plan Update), adopted April 16, 2014, guides the future development of bicycle facilities and programs in the Town. Its recommendations facilitate bicycling for transportation and recreation and help attain the goals identified in the bicycle section of the General Plan Mobility Element. The Bikeway Plan Update seeks to meet the community needs and desires for a pleasant, enjoyable, and safer bicycle experience by establishing an overall framework for developing the bicycle network. Refer to Section 8.0, *Effects Found Not To Be Significant*, for further discussion regarding bicycle facilities.

The Town of Mammoth Lakes Design Guidelines

The *Design Guidelines for the Town of Mammoth Lakes* (Town of Mammoth Lakes Design Guidelines), approved are intended to bring a comprehensive and unified approach to the review of development projects so that integration of individual projects can create an attractive community. Adopting design guidelines acknowledges the connection between pleasant surroundings in the built environment and the natural beauty around Mammoth Lakes. Community values including Mammoth's unique eclectic character, identifiable neighborhoods, maintenance of important views and vistas, the natural beauty of Mammoth, healthy forest, convenient pedestrian, bike, and transit connections, scale and proportions appropriate to a pedestrian environment, use of natural, regional materials in the built environment, integrated elements of the built environment, and environmentally sensitive design underpin the content of the Design Guidelines. The Town of Mammoth Lakes Design Guidelines have been written to provide a greater level of detail regarding the type of development that promotes the Town's Vision Statement, General Plan and Municipal Code. The design goals and standards included in this document are to be applied to all commercial and residential development, except single-family residences. Items addressed are: project concept, site design, building design, landscape design, public space furnishings, lighting, signage, and outdoor sales/storefront displays.

5.1.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

- Physically divide an established community (refer to Section 8.0, *Effects Found Not To Be Significant*);

- Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect (refer to Impact Statements LU-1 through LU-3); and/or

- Conflict with any applicable habitat conservation plan or natural community conservation plans (refer to Section 8.0, *Effects Found Not To Be Significant*).

For the purposes of this impact analysis, a significant impact would occur if project implementation would result in inconsistencies or conflicts with the adopted goals and policies of the General Plan and/or applicable rules and regulations of the Zoning Code, as well as other specified regional and local plans. Based on these standards, the project's effects have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.1.4 IMPACTS AND MITIGATION MEASURES

TOWN OF MAMMOTH LAKES GENERAL PLAN

LU-1 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH GENERAL PLAN POLICIES OR REGULATIONS.

Impact Analysis: The General Plan is the primary planning document that guides land uses in the Town. The General Plan contains requirements for development, which pertain to the proposed project; refer to the *Regulatory Setting* discussion above.

Table 5.1-1, *General Plan Policy Consistency Analysis*, analyzes the project's consistency with the relevant General Plan goals and policies. As demonstrated in Table 5.1-1, the proposed project is consistent with the relevant General Plan goals and policies.

Table 5.1-1
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
Community Design Element	
Goal C.1: Improve and enhance the community's unique character by requiring a high standard of design in all development in Mammoth Lakes.	
Goal C.2: Design the man-made environment to complement, not dominate, the natural environment.	
C.2.A: Create well-designed and significant public spaces in resort/commercial developments to accommodate pedestrians and encourage social interaction and community activity.	Consistent. As indicated in Section 3.3, *Project Characteristics*, the project would provide new community multi-use facilities at the project site, encompassing an ice rink (winter)/recreation/event area (RecZone), a community center, an active outdoor recreation area, reconfiguration and improvements to an existing playground to add accessible interactive components, restroom improvements, and 107 additional surface parking spaces. The ice rink, RecZone, and community center would provide a number of daily, weekly, monthly and occasional community-based activities. The ice rink, RecZone, and community center are open facilities for daily social interaction, frequently programmed community events with complementary space/amenities. In addition, the existing park playground may be moved or new integrated and interactive features may be added. The park playground would provide integrated and interactive features including freestanding play, horizontal ladders/upper body pedalers, rubberized surfacing, adaptive swings, communication skills, sensory walls, and story circles.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
	The active outdoor recreation area may provide possible activities such as a dog park, a BMX bicycle dirt track (during summer months), sledding hill (during winter months), and/or a community garden. The project's proposed community multi-use facilities would increase the available services and amenities and support social interaction and community activity in the area.
C.2.C: Encourage development of distinct districts, each with an appropriate density and a strong center of retail, services, or amenities.	Consistent. Refer to Response C.2.A. The project proposes new community multi-use facilities that includes public amenities and active/passive recreation facilities, consistent with the uses envisioned by the Snowcreek district. The site is located in proximity to commercial/office uses, multi-family residential uses, and open space/recreational trails located to the north, west, east, and south.
C.2.D: Preserve and enhance special qualities of districts through focused attention on land use, community design, and economic development.	Consistent. Refer to Response C.2.C.
C.2.F: Improve visual appearance as well as pedestrian access and activity by requiring infill development patterns. Encourage rehabilitation and reorientation of existing strip commercial development consistent with neighborhood and district character.	Consistent. Refer to Responses C.2.A and C.2.C.
C.2.J: Be stewards in preserving public views of surrounding mountains, ridgelines and knolls.	Consistent. As indicated in Section 5.2, *Aesthetics/Light and Glare*, the project site in located within the viewshed of Town-designated public views and represent views toward Mammoth Mountain, the Sherwin Range, and Mammoth Crest (identified visual resources). Motorists, bicyclists, and pedestrians traveling southbound along Old Mammoth Road would experience the most significant alteration of current views of Mammoth Mountain, the Sherwin Range, and Mammoth Crest with implementation of the proposed project. However, due to the proposed setbacks for the multi-use facilities structure (approximately 265 feet west of Old Mammoth Road), and the mass and scale of the project in comparison to the surrounding uses, southern views of the Sherwin Range and Mammoth Crest, as well as western views of Mammoth Mountain from southbound Old Mammoth Road would remain visible compared to existing conditions.
C.2.L: Create a visually interesting and aesthetically pleasing built environment by requiring all development to incorporate the highest quality of architecture and thoughtful site design and planning.	Consistent. As indicated in Section 5.2, *Aesthetics/Light and Glare*, per Municipal Code Chapter 17.88, the overall color scheme would be subject to the Town Design Guidelines Color Handbook, subject to approval by the Town PEDC. Per Municipal Code Section 17.32.100(c), landscape design would be required to be Town standards. Large pine trees are present on-site and may be required to be removed as part of the proposed project. However, all tree removal activities would be required to comply with Municipal Code Section 17.36.140, which requires a tree removal and protection plan. For those trees removed, the Town would be required to mitigate with tree replacement at a ratio determined by the Community and Economic Development Manager (refer to Mitigation Measure BIO-1). Overall, the Design Review process would ensure that landscaping would enhance the character of the on-site development and would be required to be compatible with, and complementary to, the natural environment in Mammoth Lakes and the surrounding region.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
	Further, the proposed 35-foot structure would be similar in visible massing to the existing buildings in the surrounding area (which range in height from 15 to 40 feet). Last, the proposed project would be consistent with the recreational intent of the site, and would comply with the existing OS designation and P-QP zoning for the site. With implementation of the recommended Mitigation Measure BIO-1 and the Town's Municipal Code, including compliance with the Town's Design Review process, long-term impacts pertaining to the degradation of character/quality would be reduced to less than significant levels.
C.2.M: Enhance community character by ensuring that all development, regardless of scale or density, maximizes provision of all types of open space, particularly scenic open space.	Consistent. Refer to Response C.2.J. The overall open space character of the project site would be developed with ice rink/community multi-use facilities, as well as hardscape plazas, and additional surface parking spaces. The project site lies on the urban edge of the Town and significant open space areas are currently located to the south and east (both within Snowcreek and within the public lands beyond) of the project site. Although the proposed project would develop the current open space/park use on-site with a new community multi-use facilities structure, expansive open space character would remain in the project area upon development. As discussed above, existing scenic views of the Sherwin Range, Mammoth Mountain and Mammoth Crest would remain visible with implementation of the project.
C.2.T: Use natural, high quality building materials to reflect Mammoth Lakes' character and mountain setting.	Consistent. As indicated in Section 5.2, *Aesthetics/Light and Glare,* the proposed structure would not be taller than 35 feet at its highest point (at the peak of the ice rink roof). Overall, the mass and scale of the proposed multi-use facilities structure would be similar to those of the surrounding land uses, which range between approximately 15 and 40 feet in height.
C.2.U: Require unique, authentic and diverse design that conveys innovation and creativity and discourages architectural monotony.	Consistent. Refer to Response C.2.L.
C.2.V: Building height, massing and scale shall complement neighboring land uses and preserve views to the surrounding mountains.	Consistent. Refer to Responses C.2.J, C.2.L, and C.2.T.
C.2.W: Maintain scenic public views and view corridors (shown in Figures 1 and 2) that visually connect community to surroundings.	Consistent. Refer to Response C.2.J. Implementation of the project would not result in increased view blockage of identified visual resources (i.e., Mammoth Mountain, the Sherwin Range, and Mammoth Crest), as seen from motorists, bicyclists, and pedestrians traveling along Old Mammoth Road. Additionally, as indicated in Section 8.0, *Effects Found Not To Be Significant*, there are no designated State scenic highways located adjacent to the site. However, State Route 203 (SR-203) (Main Street) is located approximately 0.73-mile north of the project site, which is eligible to become a State scenic highway, but has not yet been officially designated, and Highway 395, the nearest Officially Designated State Scenic Highway is located approximately 2.8 miles to the east of the project site. Views of the project site are not afforded from SR-203 or Highway 395 due to intervening structures, topography, and vegetation. Thus, the proposed project would not damage any identified scenic public views and view corridors.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
Goal C.3: Ensure safe and attractive public spaces, including sidewalks, trails, parks and streets.	
C.3.D: Development shall provide pedestrian oriented facilities, outdoor seating, plazas, weather protection, transit waiting areas and other streetscape improvements.	Consistent. Refer to Responses C.2.A and C.2.C.
C.3.E: Ensure that landscaping, signage, public art, street enhancements, and building design result in a more hospitable and attractive pedestrian environment. Require an even higher level of design quality and detail in commercial mixed use areas.	Consistent. Refer to Responses C.2.A and C.2.C.
Goal C.4: Be stewards of natural and scenic resources essential to community image and character.	
C.4.A: Development shall be designed to provide stewardship for significant features and natural resources of the site.	Consistent. As identified in Section 5.3, *Biological Resources*, there are no special-status habitats within the project site. Additionally, all special-status plant species and remaining special-status wildlife species are presumed to be absent from the project site. Pine trees, primarily Jeffery pine, and lodgepole pine, were noted on-site. Project implementation could include the removal of trees. If tree removal is proposed, the project would be required to prepare a tree removal and protection plan that is consistent with Section 17.36.140 of the Municipal Code (Mitigation Measure BIO-1). The tree removal and protection plan would be required to depict all trees to be preserved and/or removed on the site. If trees are removed, the ratio of tree removal to replacement planting would be determined by the Community and Economic Development Manager. Replacement trees would be required to be consistent with the species identified in the Town of Mammoth Lakes' Recommended Plan List and be a minimum size of seven gallons. A Registered Professional Forester or arborist may also determine the value of the tree and include additional replacement requirements. It will be the Contractor's responsibility to maintain the plantings. Adherence to the Town's Municipal Code (Section 17.36.140) and implementation of Mitigation Measure BIO-1 would reduce impacts in this regard to a less than significant level. The plant community found on the western half of the project site provides foraging habitat, nesting/denning sites, and shelter for wildlife including migrant and nesting bird species. Although nests were not observed during the Habitat Assessment, the proposed construction activities could potentially impact nesting birds within the project site and within the immediate vicinity. Implementation of Mitigation Measure BIO-2 would require a pre-construction clearance survey if construction cannot occur outside of the nesting season. The survey would ensure that no birds are nesting on or within 500 feet of the project site. A negative survey would be required by a biologist prior to construction to indicate no impacts to active bird nests. If active nests are found during the pre-construction clearance survey, construction activities would be required to stay outside a buffer determined by the biologist in consultation with CDFW, or construction would need to be delayed until the nest is inactive. During site disturbance activities, a biological monitor would be required to delineate the boundaries of the buffer area and monitor the active nest.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
	Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, a monitoring report and written authorization by the CDFW Contractor would be required prior to initiation of construction activities within the buffer area. Therefore, adherence to Mitigation Measure BIO-2 would reduce impacts to a less than significant level.
C.4.B: To retain the forested character of the town, require use of native and compatible plant species in public and private developments and aggressive replanting with native trees.	Consistent. Refer to Response C.4.A.
C.4.D: Retain the forested character of the town by requiring development to pursue aggressive replanting with native trees and other compatible species.	Consistent. Refer to Response C.4.A.
Goal C.5: Eliminate glare to improve public safety. Minimize light pollution to preserve views of stars and the night sky.	
C.5.A: Require outdoor light fixtures to be shielded and down-directed so as to minimize glare and light trespass.	Consistent. As indicated in Section 5.2, *Aesthetics/Light and Glare*, with implementation of Mitigation Measure AES-3, all construction-related nighttime security lighting, if necessary, would be oriented downward and away from adjacent residential areas. Lighting would consist of the minimal wattage necessary to provide safety at the construction site. As these impacts would only last until 8:00 p.m., and would cease upon completion of construction, with compliance with Mitigation Measure AES-3, impacts in this regard would be reduced to less than significant levels. The proposed project would also be required to comply with the Municipal Code Section 17.36.030, *Exterior Lighting*. An outdoor lighting plan would be required to be submitted in conjunction with the design review. The plan would be required to show that all outdoor lighting fixtures are designed, located, installed, aimed downward or toward structures, retrofitted if necessary, and maintained in order to prevent glare, light trespass, and light pollution. Outdoor lighting installations must be designed to avoid harsh contrasts in lighting levels between the project site and the adjacent properties. With compliance with the Town's Municipal Code, impacts in this regard would be reduced to less than significant levels.
C.5.B: Enforce removal, replacement, or retrofit of non-shielded or non-down-directed light fixtures that contribute to glare and light pollution.	Consistent. Refer to Response C.5.A.
C.5.C: Improve pedestrian safety by eliminating glare for motorists through use of non-glare roadway lighting. A light fixture's source of illumination shall not be readily visible at a distance. Number of fixtures used shall be adequate to evenly illuminate for pedestrian safety.	Consistent. Refer to Response C.5.A.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
Goal 6.6: Enhance community character by minimizing noise.	
C.6.A: Minimize community exposure to noise by ensuring compatible land uses around noise sources.	Consistent. As concluded in Section 5.8, *Noise*, implementation of Mitigation Measures NOI-1 through NOI-3 would reduce potential noise impacts from construction activities and stationary noise sources (e.g., mechanical equipment, group conversation and crowd noise, recreational skating, ice hockey activities, amplified live or recorded music, ice resurfacer/zamboni equipment, organized sports games, park playground, outdoor recreation area, and parking areas) at surrounding sensitive receptors to a less than significant level. Compliance with Mitigation Measures NOI-1 through NOI-3 would ensure that noise levels from all sources at the project site would be within the Town noise standards.
C.6.B: Allow development only if consistent with the Noise Element and the policies of this Element. Measure noise use for establishing compatibility in dBA CNEL and based on worst-case noise levels, either existing or future, with future noise levels to be predicted based on projected 2025 levels.	Consistent. Refer to Response C.6.A. As indicated in Section 5.8, *Noise*, the proposed project would not result in long-term mobile noise impacts based on project generated traffic as well as cumulative noise levels.
C.6.C: Development of noise-sensitive land uses shall not be permitted in areas where the noise level from existing stationary noise sources exceeds the noise level standards described in the Noise Element.	Consistent. Refer to Responses C.6.A and C.6.B.
C.6.D: Require development to mitigate exterior noise to "normally acceptable" levels in outdoor areas.	Consistent. Refer to Responses C.6.A and C.6.B.
C.6.F: Require mitigation of all significant noise impacts as a condition of project approval.	Consistent. Refer to Response C.6.A. As indicated in Section 5.8, *Noise*, Mitigation Measure NOI-1 would require disturbance coordinator response for construction noise complaints and directing equipment away from receptors in order to reduce construction-related noise and minimize any impacts from construction noise. Mitigation Measure NOI-2 would be required to prohibit use of the active outdoor recreation area after 10:00 p.m. and impacts in this regard would be less than significant. Additionally, Mitigation Measure NOI-3 prohibits amplified music after 10:00 p.m., unless the volume of the amplification system is adjusted to not exceed 82 dBA at 20 feet from the source. This adjustment would ensure that noise levels do not exceed the Town's 50 dBA nighttime standard at the closest sensitive receptors. Implementation of Mitigation Measures NOI-1 through NOI-3 would ensure that impacts are reduced to a less than significant level.
Neighborhood District and Character Element	
Snowcreek District	
Characteristic #1: Western range and meadow: spacious setting, broad and wide open with backdrop of Sherwin Range.	Consistent. Refer to Response C.2.J.
Characteristic #3: Stress stewardship of land and resources.	Consistent. Refer to Responses C.2.J and C.2.M.
Characteristic #4: Provide access and staging areas to Sherwin Range and "community" uses accessible from Old Mammoth Road.	Consistent. Refer to Response C.2.A.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
Characteristic #7: Integrated with Mammoth Creek Park and Mammoth Creek Corridor, the historical museum site, equestrian center, parking, trails, and snow play, and future possibilities such as a recreation center or amphitheater.	Consistent. Refer to Responses C.2.A and C.2.C.
Land Use Element	
Goal L.1: Be stewards of the community's small town character and charm, compact form, spectacular natural surroundings and access to public lands by planning for and managing growth.	
L.1.B: Require all development to meet community goals for highest quality of design, energy efficiency, open space preservation, and promotion of a livable, sustainable community. Development that does not fulfill these goals shall not be allowed.	Consistent. Refer to Responses C.2.A and C.2.M. The project proposes a variety of project design features that would increase energy efficiency on-site including drought-tolerant landscaping, low-flow plumbing fixtures, recycled content on building finishes, and low or no VOCs in building finishes. The project would also install photovoltaic and/or solar panels on the south-facing pitch of the roof. The project would also provide transit and pedestrian connections throughout the site.
Goal L.3: Enhance livability by designing neighborhoods and districts for walking through the arrangement of land uses and development intensities.	
L.3.A: Achieve a diversity of uses and activities and efficient use of land by maintaining a range of development types.	Consistent. Refer to Responses C.2.A and C.2.C.
L.3.B: Develop vital retail centers and streets.	Consistent. Refer to Responses C.2.A and C.2.C.
L.3.C: Encourage development of small neighborhood-serving retail and services dispersed through town.	Consistent. Refer to Responses C.2.A and C.2.C.
L.3.F: Ensure appropriate community benefits are provided through district planning and development projects.	Consistent. Refer to Response C.2.A. The project proposes new community multi-use facilities, with associated active indoor and outdoor recreation areas. The community center will offer weekly scheduled programs including educational programs; adult and youth introductory fitness classes (e.g., dance, Zumba, gymnastics/tumbling, yoga); games (e.g., table tennis, foosball, air hockey); arts and crafts programs/camps; training/certification courses (e.g., first-aid training); family support groups; and seasonal theatre productions and rehearsal space. Monthly programs or special events may include drop-in art programs; Technology, Entertainment, Design (TED) Talks; community and social holiday celebrations; fairs/festivals; rotating art gallery; and community variety/talent shows. The community center will also schedules occasional activities and events such as facility rentals for small events/conferences, movie nights, and an after-dance teen hangout space. The ice rink will offer daily or frequently programmed activities including recreational skating, youth and adult hockey, as well as programs for ice skating and figure skating. Weekly programs will include curling and skate programs, ice rentals for hockey, and birthday parties while monthly programs or special events include community events, hockey tournaments, special programs/events, private facility rentals, and professional/club/college/school rentals and events. In the summer months, the RecZone will offer frequent youth and adult programmed court sports for drop-in and league play, adaptive sports, summer sports camps, roller/inline skating, and tennis. Weekly programs scheduled at the facility include community area for sports teams and events, professional/club/college/school rentals, birthday parties, climbing wall,

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
	indoor cricket and handball. Community events such as farmers market, art and music festivals, movie nights, holiday events, and special events could be accommodated at the facility. Special events may include, but are not limited to weddings, trade shows, birthday parties, small carnivals, and other private events.
Goal L.5: Provide an overall balance of uses, facilities and services to further the town's role as a destination resort community.	
L.5.E: Development shall complement and diversify the range of resort community activities and amenities.	Consistent. Refer to Responses C.2.A, C.2.C, and L.3.F. The project proposes new community multi-use facilities with associated active indoor and outdoor recreation areas.
L.5.F: Require all multi-family, resort, and specific plan development to include activities, amenities and services to support long-term visitation.	Consistent. Refer to Responses C.2.A and C.2.C, and L.3.F.
Mobility Element	
Goal M.3: Emphasize feet first, public transportation second, and car last in planning the community transportation system while still meeting Level of Service standards.	
M.3.A: Maintain a Level of Service D or better on the Peak Design Day at intersections along arterial and collector roads.	Consistent. As indicated in Section 5.5, *Traffic/Circulation*, results of the LOS analyses indicate that all intersections currently operate at an acceptable LOS and would continue to do so with the implementation of the proposed project although the LOS may degrade by one level under future cumulative conditions.
M.3.B: Reduce automobile trips by promoting and facilitating: • Walking • Bicycling • Local and regional transit • Innovative parking management • Gondolas and trams • Employer-based trip reduction programs • Alternate work schedules • Telecommuting • Ride-share programs • Cross-country skiing and snowshoeing	Consistent. The project proposes multi-use community facilities and is surrounded by multi-family residential uses and open space/recreational trail uses. The surrounding residences are within walking distance of the project site, reducing the need for additional automobile trips by promoting and facilitating walking and bicycling. In addition, pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site, allowing for pedestrian integration and improved circulation within the area. Further, major transit stops are currently located immediately adjacent to the project site along Old Mammoth Road and Mammoth Creek Road and in close proximity to the project area along Old Mammoth Road and Chateau Road. Access to the transit stops would be maintained, further encouraging reduction in automobile trips by providing access to transit.
M.3.E: Require development to implement Transportation Demand Management (TDM) measures.	Consistent. Since the project meets the Town's parking requirements, TDMs are not required pursuant to Municipal Code Section 17.44.050.
M.3.G: Construction activities shall be planned, scheduled and conducted to minimize the severity and duration of traffic impediments.	Consistent. As indicated in Section 5.5, *Traffic/Circulation*, a Construction Management Plan would be required to be submitted for review and approval by the Community and Economic Development Department in order to minimize the severity and duration of traffic impediments during construction activities.
M.3.H: Commercial developments shall not allow delivery vehicles and unloading activity to impede traffic flow through adequate delivery facilities and/or delivery management plans.	Consistent. The proposed project involves multi-use community facilities that would receive occasional deliveries from vans and small trucks that would occur off of Old Mammoth Road in the driveway area.
Goal M.4: Encourage feet first by providing a linked year-round recreational and commuter trail system that is safe and comprehensive.	

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
M.4.A: Improve safety of sidewalks, trails and streets.	Consistent. Pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site. The project promotes connectivity within the project site by linking the existing trail connections with indoor and outdoor active recreation areas.
M.4.B: Provide a high quality pedestrian system linked throughout the community with year-round access.	Consistent. Refer to Response M.4.A.
M.4.C: Design streets, sidewalks and trails to ensure public safety such as: • adequate dimensions and separation • glare-free lighting at intersections • directional and informational signage • trash receptacles • benches • shuttle shelters • protected roadway crossings • landscaping • groomed community trails • snow removed from sidewalks	Consistent. Refer to Response M.4.A.
M.4.D: Provide safe travel for pedestrians to schools and parks.	Consistent. Refer to Response M.4.A.
M.4.E: Development shall improve existing conditions to meet Town standards.	Consistent. The existing trail would be improved to meet Town standards with connections to indoor and outdoor active recreation areas.
Goal M.5: Provide a year-round local public transit system that is convenient and efficient.	
M.5.B: Encourage transit use by requiring development and facility improvements to incorporate features such as shelters, safe routes to transit stops, and year-round access.	Consistent. Eastern Sierra Transit transit and town trolley stops are currently located immediately adjacent to the project site along Old Mammoth Road and Mammoth Creek Road and in close proximity to the project area along Old Mammoth Road and Chateau Road. Access to the transit stops would be maintained. In addition, pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site, allowing for pedestrian integration and improved circulation within the area.
Goal M.7: Maintain and improve safe and efficient movement of people, traffic, and goods in a manner consistent with the feet first initiative.	
M.7.E: Require all development to construct improvements and/or pay traffic impact fees to adequately mitigate identified impacts. Mitigation of significant project-related impacts may require improvements beyond those addressed by the current Capital Improvement Program and Town of Mammoth Lakes Air Quality Management Plan and Particulate Emissions Regulations.	Consistent. As indicated in Section 5.5, *Traffic/Circulation*, project implementation would maintain a Level of Service D or better on the peak design day at all study intersections. No new turn lanes are expected to be necessary along Old Mammoth Road at the site access point. Adequate traffic conditions are expected to be provided with the proposed project. Impacts would be less than significant and would not require implementation of mitigation. The project would be required to pay any development impact fees owed at time of building permit issuance.
M.7.H: Development shall dedicate, design and construct internal and adjacent streets, sidewalks and trails to Town standards.	Consistent. Refer to Response M.4.E.
Parks, Open Space, and Recreation Element	
Goal P.1: Maintain parks and open space within and adjacent to town for outdoor recreation and contemplation.	
Goal P.4: Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.	

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
P.4.A: Expand recreational opportunities by proactively developing partnerships with public agencies and private entities.	Consistent. Refer to Responses C.2.A and L.3.F. In the summer months, the Mammoth RecZone would be the home of Parks and Recreation Department summer camps and programs. The facility would offer daily and weekly programs, host monthly programs, and provide a venue for special events.
P.4.B: Provide an affordable and wide range of year-round recreational opportunities to foster a healthy community for residents and visitors. Activities include but are not limited to: downhill skiing & snowboarding, day & backcountry hiking, cross-country skiing, walking, back-country skiing, snowboarding, interpretive trails & signage snowshoeing, climbing, sledding, touring, dog sledding, street & mountain biking, ice skating, camping, snowmobiling, fishing, sleigh rides, fall-color viewing, tennis, birding, swimming, health & fitness, soccer, off-highway vehicles, racquetball, equestrian activities, snow play, BMX, and skateboarding.	Consistent. Refer to Responses C.2.A, C.2.C, and L.3.F.
Goal P.5: Link parks and open space with a well-designed year-round network of public corridors and trails within and surrounding Mammoth Lakes.	
P.5.A: Create open space corridors by combining open space on neighboring properties.	Consistent. Refer Responses C.2.A and C.2.C.
P.5.D: Design public and private streets not only as connections to different neighborhood districts but also as an essential element of the open space system. Include parks and plazas, tree-lined open spaces and continuous recreational paths in design.	Consistent. Refer to Response M.4.A.
P.5.E: Design parks and open space to be accessible and usable except when set aside for preservation of natural resources, health and safety.	Consistent. Refer to Responses C.2.A and C.2.C.
Resource Management and Conservation Element	
Goal R.1: Be stewards of habitat, wildlife, fisheries, forests and vegetation resources of significant biological, ecological, aesthetic and recreational value.	
R.1.A: Be stewards of important wildlife and biological habitats within the Town's municipal boundary.	Consistent. As identified in Section 5.3, *Biological Resources*, there are no special-status habitats within the project site. Additionally, compliance with Mitigation Measures BIO-1 and BIO-2 would reduce any potential impacts to important wildlife and biological habitats.
R.1.B: Development shall be stewards of Special Status plant and animal species and natural communities and habitats.	Consistent. Refer to Responses C.4.A and R.1.A. As noted in Section 5.3, *Biological Resources*, all special-status plant species and remaining special-status wildlife species are presumed to be absent from the project site.
R.1.C: Prior to development, projects shall identify and mitigate potential impacts to site-specific sensitive habitats, including special status plant, animal species and mature trees.	Consistent. Refer to Responses C.4.A, R.1.A, and R.1.B.
R.1.D: Be stewards of primary wildlife habitats through public and/or private management programs. For example, construction of active and passive recreation and development areas away from the habitat.	Consistent. Refer to Responses C.4.A, R.1.A, and R.1.B.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
R.1.I: Encourage the management of forest resources in and adjacent to the town to ensure forest health, minimize insect and pathogen outbreaks and reduce fuel loading.	Consistent. Refer to Responses C.4.A, R.1.A, and R.1.B.
Goal R.2. Maintain a healthy regional natural ecosystem and provide stewardship for wetlands, wet meadows and riparian areas from development-related impacts.	
R.2.B: Be stewards of forested areas, wetlands, streams, significant slopes and rock outcroppings. Allow stands of trees to continue to penetrate the community to retain the mountain character of Mammoth Lakes. Minimize tree removal for development to the greatest extent possible.	Consistent. Refer to Responses C.4.A, R.1.A, and R.1.B.
Goal R.3. Preserve and enhance the exceptional natural, scenic and recreational value of Mammoth Creek.	
R.3.B: Manage all properties held by the Town of Mammoth Lakes along the Mammoth Creek corridor for open space, habitat preservation and passive recreation.	Consistent. According to the *Town of Mammoth Lakes Parks and Recreation Master Plan*, the Town owns a deed-restricted open space along the Mammoth Creek corridor (just east of Valentine Eastern Sierra Reserve) that can serve passive recreational uses and offer trail routes. Additionally, the Town's deed-restricted open space along Meridian Boulevard (between Mammoth Schools and Trails End Park) has an existing trail. The proposed project provides new community multi-use facilities and integrated interactive features to the existing Mammoth Creek Park playground to serve as recreational services and activities within the area. The proximity to the Mammoth Creek corridor affords interpretive opportunities as a staging area and portal for activities such as hiking, biking, horseback riding, and snowplay. However, given that the area east of Valentine Eastern Sierra Reserve is located approximately 7.5 miles southeast from the project site, the open space and habitat preservation area along the Mammoth Creek corridor would not be impacted. As the Town of Mammoth Lakes has limited in-town acreage for developing new parks and recreation facilities, the Town is considering partnership opportunities to develop facilities on other public and private properties to allow for more flexibility of park uses and development. Additionally, as noted in Exhibit 3-4, *Conceptual Site Plan*, the project development area and activities would not encroach upon Mammoth Creek. Furthermore, as noted in Section 5.9, *Hydrology and Water Quality*, there would not be any short- or long-term runoff from the project site that would impact Mammoth Creek.
R.3.D: Improve public access to Mammoth Creek through discretionary project review and other available means.	Consistent. Refer to Responses M.4.A, M.5.B, and M.7.E.
Goal R.4. Conserve and enhance the quality and quantity of Mammoth Lakes' water resources.	
R.4.B: Support and encourage water conservation and recycled water use within private and public developments.	Consistent. Refer to Response L.1.B.
R.4.C: Require drought-tolerant landscaping and water-efficient irrigation practices for all development and Town-maintained landscaped areas, parks and park improvement projects. Development design, including parks, may include limited turf as appropriate to the intended use.	Consistent. Refer to Response L.1.B.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
R.4.D: Require development to use native and compatible non-native plants, especially drought resistant species, to greatest extent possible when fulfilling landscaping requirements.	Consistent. Refer to Response L.1.B.
Goal R.6: Optimize efficient use of energy.	
R.6.C: Encourage energy efficiency in new building and retrofit construction, as well as resource conservation and use of recycled materials.	Consistent. Refer to Response L.1.B.
Goal R.7: Be a leader in use of green building technology.	
R.7.A Use green building practices to greatest extent possible in all construction projects.	Consistent. Refer to Response L.1.B.
Goal R.10: Protect health of community residents by assuring that the town of Mammoth Lakes remains in compliance with or improves compliance with air quality standards.	
R.10.B: Promote land use patterns that reduce number and length of motor vehicle trips, including: • development of in-town workforce housing • residential and mixed use development • adjacent to commercial centers • mountain portals and transit corridors • provision of a mix of support services in employment areas	Consistent. Refer to Responses M.3.B, M.3.E, and M.5.B.
R.10.C: Support strategies for development that reduce projected total vehicle miles traveled including, but are not limited to: • circulation system improvements • mass transit facilities • private shuttles • design and location of facilities to encourage pedestrian circulation	Consistent. Refer to Responses M.3.B, M.3.E, and M.5.B.
R.10.D: Mitigate impacts on air quality resulting from development through design, participation in Town air pollution reduction programs, and/or other measures that address compliance with adopted air quality standards.	Consistent. As indicated in Section 5.6, *Air Quality*, construction emissions would not exceed thresholds. Mitigation Measures AQ-1 through AQ-3 would be required to minimize fugitive dust emissions and ensure compliance with Great Basin Unified Air Pollution Control District (GBUAPCD) Rules. The project would not result in overall growth beyond what is anticipated in the General Plan. Operational emissions would not exceed the applicable thresholds.
R.10.E: The Town of Mammoth Lakes will strive to attain and maintain the National Ambient Air Quality Standard (NAAQS) for PM-10.	Consistent. Refer to Response R.10.D.
R.10.G: Reduce air pollutants during construction through implementation of Best Management Practices (BMPs).	Consistent. Refer to Response R.10.D.
Goal R.11 Reduce greenhouse gas emissions.	
R.11.A: Support the objectives of the U.S. Mayors Climate Protection Agreement, Assembly Bill 32, and California Executive Order S-03-05 and implement actions to reduce Mammoth Lakes' carbon footprint.	Consistent. As indicated in Section 5.7, *Greenhouse Gas Emissions*, the project would not conflict with or impede implementation of reduction goals identified in AB 32 and other strategies to help reduce GHG emissions. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
R.11.A: Support the objectives of the U.S. Mayors Climate Protection Agreement, Assembly Bill 32, and California Executive Order S-03-05 and implement actions to reduce Mammoth Lakes' carbon footprint.	Consistent. As indicated in Section 5.7, *Greenhouse Gas Emissions*, the project would not conflict with or impede implementation of reduction goals identified in AB 32 and other strategies to help reduce GHG emissions. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.
Public Health and Safety Element	
Goal S.3. Minimize loss of life, injury, property damage, and natural resource destruction from all public safety hazards.	
S.3.B: Design buildings so that snow shed, ice shed and snowmelt are not a hazard to people and property.	Consistent. As indicated in Section 5.9, *Hydrology and Water Quality*, implementation of Mitigation Measure HWQ-5 would ensure that storm drain facilities are property maintained through a Storm Drain Facilities Maintenance Plan. The Maintenance Plan would ensure that snow removal activities conducted near proposed storm drain facilities do not restrict drainage collection in gutters, inlets, and flow paths.
S.3.I: Require geotechnical evaluations and implement mitigation measures prior to development in areas of potential geologic or seismic hazards.	Consistent. The proposed project would be required to be constructed to current regulatory requirements.
S.3.L: All construction shall comply with wildland fire-safe standards, including standards established for emergency access, signing and building numbering, private water supply reserves available for fire use, and vegetation modification.	Consistent. The Town and surrounding area have been rated as having a very high fire potential. Thus, implementation of the proposed project could expose people or the new structure to risk involving wild land fires, as would be true for any development within the Town. The proposed project is subject to compliance with the Uniform Fire Code, which was amended by the Mammoth Lakes Fire Protection District (MLFPD) to ensure that Fire Code regulations are met. The proposed development would be reviewed to ensure adequate emergency access, signing and building numbering, and private water supply reserves are provided.
Goal S.4. Maintain adequate emergency response capabilities.	
S.4.A: Aid emergency vehicle access and emergency evacuation of residents and visitors by providing and maintaining secondary access routes to all portions of the community, consistent with the Mammoth Lakes Fire Protection District (MLFPD) requirements.	Consistent. The site is located on the urban fringe of the Town within a developed area of the Town of Mammoth Lakes and would have adequate emergency vehicle access extended to the new community multi-use facilities. The project does not conflict with the adopted Town of Mammoth Lakes Emergency Operations Plan. In addition, the project is required to comply with applicable Town and MLFPD's codes for emergency vehicle access. Further, construction of the proposed project is not anticipated to require road closure during construction.
Noise Element	
4.2.1: New development of noise-sensitive land uses shall not be permitted in areas exposed to existing or projected future levels of noise from transportation noise sources which exceed 60 dB Ldn in outdoor activity areas or 45 dB Ldn in interior spaces.	Consistent. As indicated in Section 5.8, *Noise*, noise within the area from mobile noise ranges from 52.4 dBA to 65.4 dBA with the 60 CNEL noise contour located 19 feet from the roadway centerline. The increase in trips associated with the proposed project would be nominal and would not be expected to increase noise levels to levels that would exceed Town Noise Standards.
4.2.2: Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed 60 dB Ldn within outdoor activity areas and 45 dB Ldn within interior spaces of existing noise sensitive land uses.	Consistent. Refer to Response 4.2.1.

Table 5.1-1 [continued]
General Plan Policy Consistency Analysis

General Plan Policy	Consistency of Proposed Project with Current Policy
4.2.3: New development of noise-sensitive land uses shall not be permitted where the noise level from existing stationary noise sources exceeds the noise level standards of Table VII, *Maximum Allowable Noise Exposure-Stationary Noise Sources*, of the General Plan Noise Element.	Consistent. Refer to Responses C.6.A and C.6.B.
4.2.4: Noise created by new proposed stationary noise sources or existing stationary noise sources which undergo modifications that may increase noise levels shall be mitigated so as not to exceed the noise level standards of Table VII at noise-sensitive uses.	Consistent. Refer to Response C.6.A.
Sources: Town of Mammoth Lakes, *Town of Mammoth Lakes General Plan 2007*, dated August 15, 2007. Town of Mammoth Lakes, *Town of Mammoth Lakes Housing Element Update 2014-2019*, dated June 18, 2014. Town of Mammoth Lakes, *Noise Element of the General Plan*, dated June 18, 1997.	

District Planning. The project is located within the Snowcreek District. Snowcreek District characteristics relevant to the proposed project have been analyzed within Table 5.1-1. As indicated in Table 5.1-1, the project would be consistent with the characteristics of the Snowcreek District.

Land Use Designation. The project site is designated OS. Development of the project site with community multi-use facilities would be consistent with the land use anticipated for the site by the General Plan.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

TOWN OF MAMMOTH LAKES MUNICIPAL CODE

LU-2 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE TOWN OF MAMMOTH LAKES MUNICIPAL CODE STANDARDS OR REGULATIONS.

Impact Analysis: The project does not include a request to amend any Municipal Code provisions. The project components include a Major Design Review, among others. The following is an analysis of the project's consistency with applicable sections of the Municipal Code.

Title 17, Zoning

Section 17.144.030, Recreation, Education, and Public Assembly Use Classifications. The proposed Project falls within the following use classification as described in Section 17.144.030: *Parks and Playgrounds, Public. Public parks, play lots, playgrounds, and athletic fields for non-commercial neighborhood or*

community use, including open space areas for passive recreation and picnicking, swimming pools, tennis courts, and other sport and active recreation facilities. This classification also includes related food concessions or community centers within the facilities. If privately owned, the same facilities are included under the definition of "Private Recreation Facility."

Section 17.32.100, *Public and Quasi-Public Zone (P-QP).* Section 17.32.100 describes the permitted uses within the P-QP zone. Public parks and playgrounds are a permitted use within the P-QP zone.

Chapter 17.88, *Design Review*. Chapter 17.88 implements the design review procedural requirements of the Town's Design Guidelines. Design review considers the design of the site plan, structures, lighting, landscaping, and other physical features of a proposed project. The review authority would evaluate the project to ensure that is satisfies the criteria established in Chapter 17.88, as well as its conformance to the policies of the General Plan and any applicable specific or master plan, the Town's Design Guidelines, and any other policies or guidelines the Town Council may adopt for this purpose. Approval of the Design Review Application would result in the project's consistency with Chapter 17.88.

The development review process is intended to ensure that the performance standards identified in the Town's Zoning Code are maintained and implemented. Thus, with approval of the Major Design Review, the project would not conflict with the Zoning Code.

As evidenced by the discussion above, the project would not conflict with the Town of Mammoth Lakes Municipal Code and a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

TOWN OF MAMMOTH LAKES PARKS AND RECREATION MASTER PLAN

LU-3 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE TOWN OF MAMMOTH LAKES PARKS AND RECREATION MASTER PLAN POLICIES AND STANDARDS.

Impact Analysis: The project proposes new community multi-use facilities at the project site, encompassing an ice rink (winter)/recreation/event area (RecZone) and additional storage and support space. In addition, the proposed project includes a complementary community center, reconfiguration and improvements to an existing playground to add accessible interactive components, restroom improvements, and additional surface parking spaces. The project would also include an active outdoor recreation area to the west of the new community multi-use facilities.

The Parks and Recreation Master Plan goals and policies are used to help guide decision-making for the Town's park and recreation facilities and programs, in a way that promotes collective values and aspirations. The Parks and Recreation Master Plan first five goals have been developed and presented in the General Plan, for the Parks, Open Space, and Recreation Element. The Master Plan also

includes an additional (sixth) goal, which was developed as a result of public input during the Park Master Plan process and proposed policies specific to this Master Plan. The following is an analysis of the project's consistency with relevant Parks and Recreation Master Plan's policies and standards; refer to Table 5.1-2, *Parks and Recreation Master Plan Consistency Analysis*. The project's consistency analysis in Table 5.1-2 also relies on and refers to responses stated in Table 5.1-1 above.

Table 5.1-2
Parks and Recreation Master Plan Consistency Analysis

Parks and Recreation Master Plan Policy	Consistency of Proposed Project with Current Policy
Goal 1: Maintain parks and open space within and adjacent to town for outdoor recreation and contemplation	
Proposed Policy 1.2: Continue to maintain and upgrade existing parks and recreation facilities, and develop a plan to retrofit existing parks and design all new facilities to ADA standards, to provide for accessibility and enjoyment by physically impaired citizens.	Consistent. Refer to Response C.2.A. In addition, the proposed Community Center would include ADA accessible bathrooms. The existing bathroom at the Mammoth Creek Park West would be updated for year round use and to comply with ADA standards.
Proposed Policy 1.3: Upgrade parks and recreation facilities to promote resource efficiency and cost-effective maintenance practices.	Consistent. Refer to Response C.2.A.
Goal 2: Provide additional parks within town.	
Policy 2D: Increase understanding and appreciation of the cultural, natural and historical resources of the region and town through development of programs, facilities and interpretive signage.	Consistent. Refer to Responses C.2.A and L.3.F.
Proposed Policy 2.2: Provide parks and recreation facilities in a timely manner with existing and planned development.	Consistent. Refer to Responses C.2.A and L.3.F.
Proposed Policy 2.5: Design and build parks and recreation facilities to ensure compatibility with the surrounding neighborhood and natural environment.	Consistent. Refer to Responses C.2.A, C.2.L, and C.2.M.
Proposed Policy 2.6: Assure that new parks and recreation facilities comply with ADA standards and, for safe use and enjoyment by physically impaired citizens.	Consistent. Refer to Response Proposed Policy 1.2.
Proposed Policy 2.7: Develop parks and recreation facilities to facilitate efficient and cost-effective maintenance practices, and to conserve water, energy, and other resources.	Consistent. Refer to Response L.1.B.
Goal 4: Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.	
Policy 4A: Expand recreational opportunities by proactively developing partnerships with public agencies and private entities.	Consistent. Refer to Responses C.2.A, L.3.F, and P.4.A.
Policy 4B: Provide an affordable and wide range of year-round recreational opportunities to foster a healthy community for residents and visitors. Activities include but are not limited to:[1]	Consistent. Refer to Responses C.2.A, C.2.C, and L.3.F.
Proposed Policy 4.4. Acquire, construct, or upgrade indoor recreation facilities to accommodate desired indoor recreation activities and leisure programs.	Consistent. Refer to Response C.2.A.

Table 5.1-2 [continued]
Parks and Recreation Master Plan Consistency Analysis

Parks and Recreation Master Plan Policy	Consistency of Proposed Project with Current Policy
Proposed Policy 4.5. Provide recreation facilities, programs, and classes that are available to all citizens, including people of all ages, abilities, ethnic background, and income levels. Keep programs affordable, and develop program packages for those with more moderate incomes (including seasonal workers).	Consistent. Refer to Response C.2.A.
Goal 5: Link parks and open space with a well-designed year-round network of public corridors and trails within and surrounding Mammoth Lakes.	
Policy 5E: Design parks and open space to be accessible and usable except when set aside for preservation of natural resources, health and safety.	Consistent. Refer to Responses C.2.A and C.2.C.
Policy 5G: Identify, zone and procure land for new and expanded parklands including:[2]	Consistent. Refer to Responses C.2.A and L.3.F.
Goal 6: Provide parks and recreational facilities and programs that foster a sense of community and nurture the emotional connection people have with each other and Mammoth Lakes.	
Proposed Policy 6.3: Offer and accommodate events and activities that foster community gathering and celebration.	Consistent. Refer to Responses C.2.A and C.2.C.
Proposed Policy 6.4: Encourage neighborhood district identity and cohesion through events and programs.	Consistent. Refer to Response L.3.F.
Proposed Policy 6.5: Provide facilities and programs that support togetherness within and among families.	Consistent. Refer to Responses C.2.A and C.2.C.
Notes: 1. P.4.B. Policy lists 29 activities. 2. P.5.G. Policy lists 11 activities.	
Source: Wallace Roberts & Todd, Inc., *Town of Mammoth Lakes Parks and Recreation Master Plan,* February 1, 2012.	

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.1.5 CUMULATIVE IMPACTS

The following discussions are included per topic area to determine whether a significant cumulative effect would occur.

- **THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE TOWN OF MAMMOTH LAKES GENERAL PLAN POLICIES AND REGULATIONS.**

- **THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE TOWN OF MAMMOTH LAKES MUNICIPAL CODE STANDARDS OR REGULATIONS.**

Impact Analysis: Development projects within the Town undergo a similar plan review process, in order to determine potential land use planning policy and regulation conflicts. Each cumulative project would be analyzed independent of other projects, within the context of their respective land use and regulatory setting. As part of the review process, each project would be required to demonstrate compliance with the provisions of the applicable land use designation(s) and zoning district(s). Each project would be analyzed in order to ensure that the goals, objectives, and policies of the General Plan and Municipal Code. Thus, the proposed project would not result in significant cumulatively considerable impacts in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

- **THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE TOWN OF MAMMOTH LAKES PARKS AND RECREATION MASTER PLAN.**

Impact Analysis: The project's goals and objectives are based on applicable Parks and Recreation Master Plan and the Parks, Open Space, and Recreation Element goals, policies, and tasks. As discussed, the proposed project would not result in significant impacts. The cumulative projects illustrated on Exhibit 4-1 would be required to demonstrate consistency with the Parks and Recreation Master Plan. Other cumulative development that would result in additional recreational resources would benefit the Town and further the goals and policies of the Parks and Recreation Master Plan. Because the project would not result in adverse land use impacts, implementation of the proposed project, in combination with other cumulative development, including recreational projects, would result in less than significant cumulative land use impacts. Thus, the proposed project would not result in cumulatively considerable impacts in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: No Impact.

5.1.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed project would not result in any significant impacts pertaining to land use and relevant planning.

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5.2 Aesthetics/Light and Glare

5.2 AESTHETICS/LIGHT AND GLARE

This section assesses the potential for aesthetic impacts using accepted methods of evaluating visual quality, as well as identifying the type and degree of change the proposed project would likely have on the character of the landscape. The analysis in this section is primarily based on information provided by the Town and verified through site reconnaissance conducted by Michael Baker International (Michael Baker) on January 12, 2016 and June 8, 2016. Photographic documentation and project-specific documentation are utilized to supplement the visual analysis and to fulfill the requirements of CEQA.

5.2.1 EXISTING SETTING

The Town of Mammoth Lakes (Town) is an alpine resort community located in the eastern side of the Sierra Nevada Range, within southwestern Mono County, California. The Town is specifically located within the Mammoth Lakes Basin at the eastern foothills of Mammoth Mountain (located within the Sierra Nevada Mountain Range). Surrounding topography includes Mammoth Knolls to the north, the Long Valley to the east (with views to the Inyo National Forest to the far east), the White Mountains to the southeast, the Sherwin Mountain Range to the south, Mammoth Crest to the southwest, and Mammoth Mountain to the west. Native trees within Mammoth Lakes include red firs, Jeffrey pines, lodgepole pines, white firs, and aspens. Barren rock outcroppings, avalanche slopes, and surface waters (i.e., streams, lakes, seeps, and snow) are visible throughout the Town. Mammoth Creek traverses the Town and flows in an easterly direction. The urbanized portions of the Town range from 7,800 to 8,600 feet above mean sea level (amsl). The approximately 4.9-acre project site is located at Mammoth Creek Park West (686 Old Mammoth Road); refer to Exhibit 3-2.

SCENIC VIEWS AND VISTAS

According to the General Plan, the Town has historically been sensitive to the need to protect and provide access to available scenic resources and has developed a system of public parks, trails, vistas, and view corridors. Although the General Plan and Municipal Code do not protect private views, the Town's development standards help preserve public scenic views and regulate the visual and physical mass of structures. The Town has designated public view corridors and vistas that to take advantage of significant public views. Notably, public scenic views of Mammoth Mountain, Sherwin Range, Mammoth Crest, White Mountains, Mammoth Knolls, and Crystal Crag are provided throughout the Town. The General Plan provides policies to protect public views of these visual resources.

According to Figure 1, *Major View Corridors and Vistas*, of the General Plan, scenic western public views of Mammoth Mountain, and southern views of the Sherwin Range and Mammoth Crest are afforded from the project site and public viewers in the immediate vicinity. The public views to the surrounding scenic resources are described more in detail below.

Southbound Old Mammoth Road

Southbound motorists, pedestrians, and bicyclists on Old Mammoth Road are currently afforded views of the Sherwin Range and Mammoth Crest to the south. The project site is also within the

viewshed of southbound viewers along Old Mammoth Road. Existing southbound views are nominally inhibited by on-site mature trees.

Town Loop Trail

The Town Loop Trail, located to the south and east of the project site, provides scenic views of Mammoth Mountain to the west of the project site. Trail users on the Town Loop Trail traveling west are also afforded views of the project site.

Mammoth Creek Park West

Recreational users at the existing Mammoth Creek Park West are afforded southern views to the Sherwin Range and Mammoth Crest, and western views towards Mammoth Mountain. Some view blockage of these scenic resources occurs due to existing mature on-site trees.

VISUAL CHARACTER/QUALITY

A photographic inventory of the project area was conducted to document the existing visual character and quality of the project site and its surroundings; refer to Exhibit 5.2-1, *On-Site Existing Condition Photographs*. The most prominent factors influencing the character of the project site and its surroundings are views of the surrounding mountains, including the Sherwin Range, Mammoth Mountain, and Mammoth Crest, which increase the vividness of the landscape. Structures in the surrounding area appear to range in height from one to three stories with varying architectural details. Surrounding buildings include a mix of uses fronting the public streets (e.g., restaurants, retail stores, offices, and residential uses). Other features that contribute to the character of the landscape include big sagebrush scrub and native pine trees (primarily Jeffrey pine and lodgepole pine).

LIGHT AND GLARE

Lighting effects are associated with the use of artificial light during the evening and nighttime hours. There are two primary sources of light: light emanating from building interiors passing through windows and light from exterior sources (i.e., street lighting, building illumination, security lighting, parking lot lighting, and landscape lighting). Light introduction can be a nuisance to adjacent residential areas, diminish the view of the clear night sky, and if uncontrolled, can cause disturbances. Uses such as residences and hotels are considered light sensitive, since occupants have expectations of privacy during evening hours and may be subject to disturbance by bright light sources. Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated. With respect to lighting, the degree of illumination may vary widely depending on the amount of light generated, height of the light source, presence of barriers or obstructions, type of light source, and weather conditions.

View of the existing playground and park space on the project site, and the Sherwin Range to the south.

View of existing vegetation in the western portion of the project site.

Eastward view of the project site.

View of existing on-site playground equipment.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

On-Site Existing Condition Photographs

Exhibit 5.2-1

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into the light source of a luminaire. Daytime glare generation is common in urban areas and is typically associated with buildings with exterior facades largely or entirely comprised of highly reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare-sensitive uses include residences, hotels, transportation corridors, and aircraft landing corridors.

Currently, light and glare sources are nominal at the project site (one exterior security light on the Mammoth Creek Park West bathroom facility). The primary lighting sources in the vicinity of the project site include pedestrian street lighting along Old Mammoth Road, as well as interior and exterior lighting at the surrounding commercial and residential uses.

Glare can also be produced during evening and nighttime hours by reflection of artificial light sources, such as automobile headlights. Glare is typically related to either moving vehicles or sun angles, although glare resulting from reflected sunlight can occur regularly at certain times of the year. Currently, daytime glare on-site and in the project area include vehicle headlights along the surrounding roadways and parking lots. Nighttime glare is currently emitted by pedestrian lighting, street lighting, and exterior security lighting at commercial and residential uses in the area.

5.2.2 REGULATORY SETTING

TOWN OF MAMMOTH LAKES GENERAL PLAN

Town policies pertaining to visual character related to the proposed project are contained in the Community Design, Resource Management and Conservation, and Neighborhood and District Character Elements of the General Plan (adopted August 15, 2007).

The Community Design Element's goals and policies describe the relationship between people and the man-made and natural environment. Because the community is set within the forest, trees and the natural landscape are prominent, create a sense of scale, and set a strong aesthetic character. Topography, vegetation, existing buildings, and open spaces create the structure and pattern of Mammoth Lakes. The applicable aesthetics/light and glare-related policies include, but are not limited to, the following:

- Create well-designed and significant public spaces in resort/commercial developments to accommodate pedestrians and encourage social interaction and community activity (C.2.A).

- Encourage development of distinct districts, each with an appropriate density and a strong center of retail, services, or amenities (C.2.C).

- Preserve and enhance special qualities of districts through focused attention on land use, community design, and economic development (C.2.D).

- Improve visual appearance as well as pedestrian access and activity by requiring infill development patterns. Encourage rehabilitation and reorientation of existing strip commercial development consistent with neighborhood and district character (C.2.F).

- Be stewards in preserving public views of surrounding mountains, ridgelines, and knolls (C.2.J).

- Create a visually interesting and aesthetically pleasing built environment by requiring all development to incorporate the highest quality of architecture and thoughtful site design and planning (C.2.L).

- Enhance community character by ensuring that all development, regardless of scale or density, maximizes provision of all types of open space, particularly scenic open space (C.2.M).

- Site development adjustments may be considered to preserve significant groups of trees or individual specimens. Replanting with native and compatible non-native trees to mitigate necessary tree removal is required (C.2.O).

- Use natural, high quality building materials to reflect Mammoth Lakes' character and mountain setting (C.2.T).

- Require unique, authentic, and diverse design that conveys innovation and creativity and discourages architectural monotony (C.2.U).

- Building height, massing, and scale shall complement neighboring land uses and preserve views to the surrounding mountains (C.2.V).

- Maintain scenic public views and view corridors (shown in Figures 1 and 2[1]) that visually connect community to surroundings (C.2.W).

- Limit building height to the trees on development sites where material tree coverage exists and use top of forest canopy in general area as height limit if no trees exist on site (C.2.X).

- Establish entry and district monumentation standards as a means of reinforcing community identity (C.3.A).

- Development shall provide pedestrian-oriented facilities, outdoor seating, plazas, weather protection, transit waiting areas, and other streetscape improvements (C.3.D).

- Ensure that landscaping, signage, public art, street enhancements, and building design result in a more hospitable and attractive pedestrian environment. Require an even higher level of design quality and detail in commercial mixed use areas (C.3.E).

[1] Reference to Figure 1, *Major View Corridors and Vistas*, and Figure 2, *Vistas and Landmarks*, of the Community Design Element of the General Plan.

- Development shall be designed to provide stewardship for significant features and natural resources of the site (C.4.A).

- To retain the forested character of the town, require use of native and compatible plant species in public and private developments and aggressive replanting with native trees (C.4.B).

- Retain overall image of a community in a forest by ensuring that native trees are protected wherever possible and remain an important component of the community (C.4.C).

- Retain the forested character of the town by requiring development to pursue aggressive replanting with native trees and other compatible species (C.4.D).

- Limited tree thinning and upper-story limbing may be permitted where needed to maintain public safety and the health of the forest, but not for the enhancement of views (C.4.E).

- Require outdoor light fixtures to be shielded and down-directed so as to minimize glare and light trespass (C.5.A).

- Enforce removal, replacement, or retrofit of non-shielded or non-down-directed light fixtures that contribute to glare and light pollution (C.5.B).

- Improve pedestrian safety by eliminating glare for motorists through use of non-glare roadway lighting. A light fixture's source of illumination shall not be readily visible at a distance. Number of fixtures used shall be adequate to evenly illuminate for pedestrian safety (C.5.C).

The Resource Management and Conservation Element's goals and policies establish ways to wisely manage the Town's natural resources and ensure their preservation for future generations. Because the community is surrounded by mountainous terrain, this natural landscape creates a sense of scale and place, and provides the community with scenic views. The applicable aesthetics/light and glare-related goals and policies include, but are not limited to, the following:

- Preserve and enhance the exceptional natural, scenic and recreational value of Mammoth Creek (R.3).

- Prohibit development in the vicinity of Mammoth Creek that does not maintain minimum established setbacks and protect stream-bank vegetation (R.3.A).

The Neighborhood and District Character Element addresses the development of individual sites and districts in order to enhance the unique character of Mammoth Lakes. The General Plan denotes that the Town is comprised of 12 districts and four mountain portals. Existing development, patterns of vegetation, topographic features, circulation patterns, and land use patterns and relationships define District boundaries. Figure 3, *District Map*, of the General Plan, illustrates the districts' boundaries and indicates that the project site is located in the Snowcreek District. The Snowcreek District is intended to connect the larger community and provide community access to Snowcreek and to surrounding public lands. According to the General Plan, the Snowcreek District

should be designed to be a livable neighborhood, including workforce housing, convenience retail, public amenities, and active/passive recreation facilities. Development in this district is encouraged to contribute to the Town's overall economy, tourism and mix of recreation amenities while preserving the area's unique features. The Snowcreek District objectives that are particularly relevant to the proposed project in the context of aesthetics include the following:

- *Characteristic 1:* Western range and meadow: spacious setting, broad and wide open with backdrop of Sherwin Range.

- *Characteristic 2:* Anchor for and a greater connection to Old Mammoth District.

- *Characteristic 3:* Stress stewardship of land and resources.

- *Characteristic 4:* Provide access and staging areas to Sherwin Range and "community" uses accessible from Old Mammoth Road.

- *Characteristic 5:* A variety of resort lodging supported by restaurants, resort services, neighborhood conveniences, commercial, retail, and outdoor ancillary recreation designed as a traditional small-scale village:

    a. Active day and evening and through all four seasons.
    b. Dispersed structures, light on the land, vertical emphasis and detailing (not heavy or strong horizontality).
    c. Landscape that reinforces sage, manzanita and wet meadow.

- *Characteristic 6:* Full service four-season resort with visitor/recreation amenities such as:

    a. Horseback, sleigh and hay wagon rides, golf and tennis.
    b. Clubhouse with food and beverage service.
    c. Special events "town commons".
    d. Center for arts and culture.

- *Characteristic 7:* Integrated Mammoth Creek Park and Mammoth Creek Corridor, the historical museum site, equestrian center, parking, trails, and snow play, and future possibilities such as a recreations center or amphitheater.

DESIGN REVIEW ORDINANCE

The Town's Zoning Code Chapter 17.88, *Design Review*, outlines the following objectives of the design review requirements:

- Implement the goals, policies, and objectives of the General Plan related to community design and character;

- Promote excellence in site planning and design and the harmonious appearance of buildings and sites and ensure the man-made environment is designed to complement, not dominate, the natural environment;

- Regulate the design, coloration, materials, illumination, and landscaping of new construction, and renovations within the Town in order to maintain and enhance the image, attractiveness, and environmental qualities of the Town as a mountain resort community;

- Ensure that new landscaping provides a visually pleasing setting for structures on the site and within the public right-of way and to prevent indiscriminate destruction of trees and natural vegetation, excessive or unsightly grading, indiscriminate clearing of property, and destruction of natural significant landforms;

- Ensure that the architectural design of structures and their materials and colors are appropriate to the function of the project and the high-elevation climate of Mammoth Lakes and are visually harmonious with surrounding development and natural landforms, trees, and vegetation; and

- Supplement other Town regulations and standards in order to ensure control of aspects of design that are not otherwise addressed.

DESIGN GUIDELINES

The policies and goals presented in the Town Design Guidelines represent the goals and desires of residents and property owners pertaining to the design of new development in the Town. All new structures and all structures that are being renovated, other than single-family homes below 8,250 feet elevation, are subject to compliance with the Design Guidelines. The Design Guidelines provide a greater level of detail regarding the type of development that promotes the Town's Vision Statement, General Plan, and Municipal Code.

Pursuant to Chapter 9.0, *Design Review Process*, of the Design Guidelines, the design review process is to be conducted by the Community and Economic Development Department (CEDD) and the Planning and Economic Development Commission (PEDC). As part of the Design Guidelines Review Process, the CEDD reviews project materials such as drawings, site development plans, landscape plans, building elevations, cross-sections, sample materials/color palettes, and visual simulations to determine compliance with the Design Guidelines. All Town staff findings and recommendations are forwarded to the PEDC in a staff report. At the PEDC Meeting, the PEDC may deny, approve, approve with conditions, or continue the hearing to receive additional input with regards to a project's compliance to the Design Guidelines.

TOWN OF MAMMOTH LAKES MUNICIPAL CODE

Outdoor Lighting Regulations

Municipal Code Section 17.36.030 regulates outdoor lighting within the Town. These regulations provide rules and regulations for outdoor lighting within the Town in order to promote a safe and pleasant nighttime environment, to protect and improve safe travel, to prevent nuisances caused by unnecessary light, to protect the ability to view the night sky, to phase out nonconforming fixtures, and to promote energy conservation.

Construction Hours of Operation

Municipal Code Section 15.08.020 regulates hours of construction within the Town. Operations permitted under a building permit are limited to the hours between 7:00 a.m. and 8:00 p.m., Monday through Saturday. Work hours on Sundays and town recognized holidays are limited to the hours between 9:00 a.m. and 5:00 p.m. and permitted only with the approval of the building official or designee.

5.2.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form used during preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

- Have a substantial adverse effect on a scenic vista (refer to Impact Statement AES-2);
- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway (refer to Section 8.0, *Effects Found Not To Be Significant*);
- Substantially degrade the existing visual character or quality of the site and its surroundings (refer to Impact Statements AES-1 and AES-3); and/or
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area (refer to Impact Statement AES-4).

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.2.4 IMPACTS AND MITIGATION MEASURES

SHORT-TERM VISUAL IMPACTS

AES-1 PROJECT GRADING AND CONSTRUCTION ACTIVITIES WOULD NOT SUBSTANTIALLY DEGRADE THE VISUAL CHARACTER/QUALITY OF THE SITE OR ITS SURROUNDINGS.

Impact Analysis: As the project site is situated on the urban fringe of Town, the project site is surrounded by development (including residential uses) to the southwest, west, and north, and vacant land to the east and south. Mammoth Creek is present in the vicinity and includes associated riparian vegetation that contributes to the existing character/quality of the area.

Construction of the proposed project would temporarily disturb the character of the site, affecting the quality of the landscape during this time. Project construction is anticipated to occur in three phases, with phases 1 and 2 possibly being constructed concurrently, beginning in June 2017 and concluding in February 2023. Construction would remove some of the existing on-site vegetation to allow for construction of the proposed project. Following site preparation activities, the construction of the proposed multi-use facilities structures and landscape improvements would occur.

Construction staging and parking areas would occur within the boundaries of the project site. Views of the construction activities and staging area on the project site would be visible from the residential uses to the north, west, and southwest. However, with implementation of the recommended Mitigation Measure AES-1, equipment staging areas would provide appropriate screening (i.e., temporary fencing with opaque material) and would reduce views toward construction staging areas, to the extent feasible.

During project construction, dump trucks and other trucks hauling grading materials would be visible. Delivery and removal of excavation equipment, cranes, other machinery, and for the delivery of materials would be seen. As with on-site activities, the visual aspect of trucks loaded with debris and/or soils would be interesting to some viewers and unsightly to others. Proposed access to the site for dump trucks, semi-trailers, and truck and trailers in the removal of excavated soils and delivery of heavy equipment would primarily occur via Old Mammoth Road in the eastern portion of the project site as well as Meadow Lane to the west of the project site. With the implementation of standard conditions of approval, grading plans would be required for submittal concurrently with the development plans and would be subject to approval through the design review process set forth by the PEDC. All grading and earthwork activities would be conducted in accordance with an approved construction grading plan and grading permit issued by the Mammoth Lakes Public Works Department. Additionally, in accordance with Mitigation Measure AES-2, a Hauling Plan would be subject to approval by the Town's Community and Economic Development Department.

During grading and excavation activities (which would take place at the initial stage of construction), there would be temporary construction fencing to screen most activities (i.e., construction equipment, soil piles, etc.) from surrounding uses. However, it is likely that construction vehicles and activities would still be visible. Implementation of Mitigation Measures AES-1 and AES-2 would reduce impacts resulting from construction activities via screening of staging areas, and a construction hauling plan. Thus, construction-related visual impacts are considered to be temporary impacts. The short-term impacts to the site's visual character/quality would be reduced to less than significant levels upon implementation of Mitigation Measures AES-1 and AES-2.

Mitigation Measures:

AES-1 Construction equipment staging areas shall be screened (i.e., temporary fencing with opaque material) to buffer views of construction equipment and material, when feasible. Staging locations shall be indicated on Final Development Plans and Grading Plans.

AES-2 The construction hauling plan shall be prepared and approved by the Public Works Director prior to issuance of grading permit. The plan shall ensure that construction haul routes minimize impacts to sensitive uses in the Town.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

SCENIC VIEWS AND VISTAS

AES-2 PROJECT IMPLEMENTATION COULD HAVE A SUBSTANTIAL ADVERSE AFFECT ON A SCENIC VIEW OR VISTA.

Impact Analysis: As previously noted, the project site is located within the viewshed of Mammoth Mountain, the Sherwin Range, and Mammoth Crest (identified visual resources). The Town's General Plan and Municipal Code do not protect private views. Thus, no impacts would result in this regard. However, the General Plan does protect designated public views. Designated public views in the project area encompass the project and identified visual resources. Specifically, these designated public views include the following:

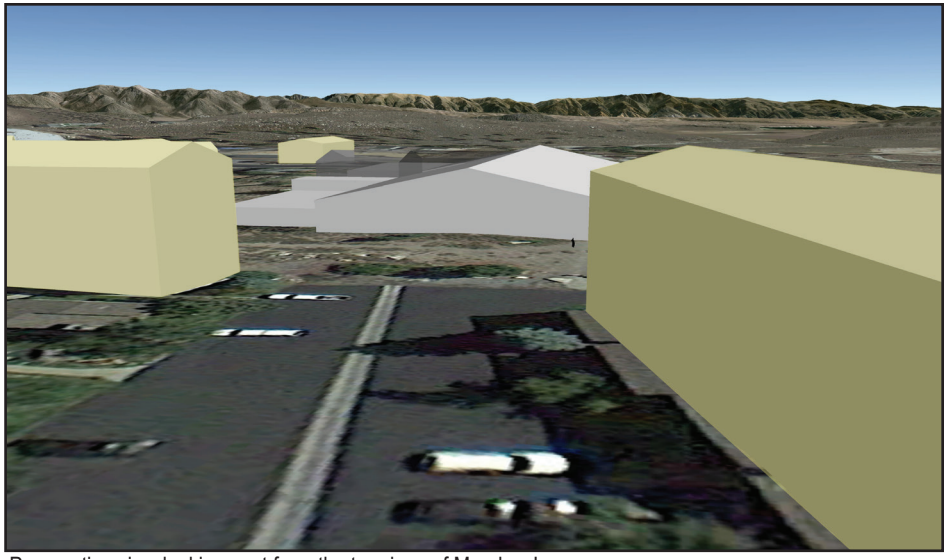
- Motorists, bicyclist, and pedestrians traveling southbound on Old Mammoth Road (to the northeast and east of the project site);
- Pedestrians and bicyclists using the Town Loop Trail (to the south and east of the project site); and
- Mammoth Creek Park West users (at the project site).

Implementation of the proposed project would result in a new single-story multi-use structure at the project site. The proposed structure would be surrounded by a paved parking area to the north/ northeast, hardscaped plazas to the north, northeast, and east, and existing playground to the east. The proposed structure would not be taller than 35 feet at its highest point (at the peak of the ice rink roof). Overall, the mass and scale of the structure would be similar to those of the surrounding land uses, which range between approximately 15 and 40 feet in height; refer to Exhibit 5.2-2, *Proposed Project Conceptual Massing*.

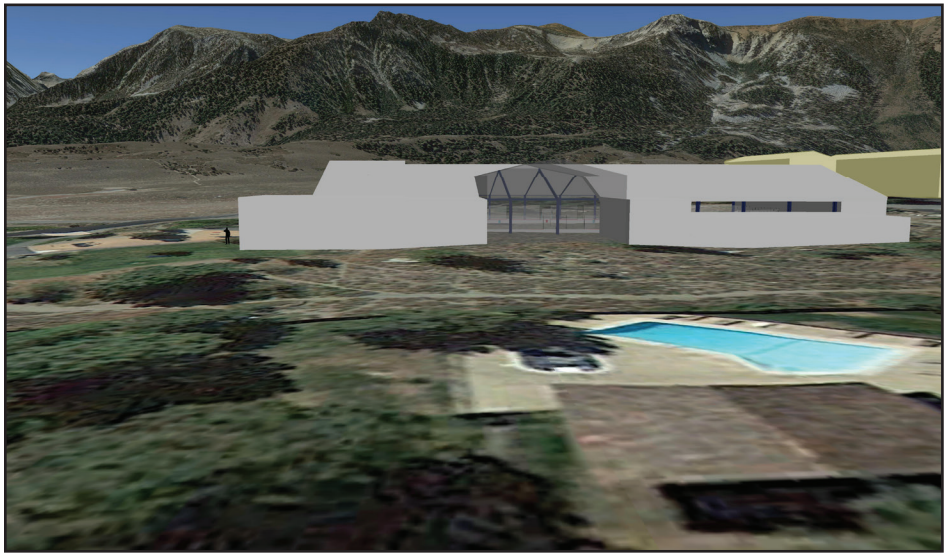
Southbound Old Mammoth Road. Although views from Old Mammoth Road include views to the Sherwin Range and Mammoth Crest, views of these resources particularly at the project site are mostly obstructed as a result of existing mature pine trees and residential development to the southwest and west of the project site. Project implementation would result in the construction of a new 35-foot building, setback approximately 265 feet west of Old Mammoth Road. This new structure would not result in additional view blockage, compared to the existing pine trees in the vicinity and residential development that extend up to 40 feet in height. Thus, the proposed project would not increase view blockage of these visual resources as seen from southern views along Old Mammoth Road. Impacts in this regard would be less than significant.

Town Loop Trail. Western views of Mammoth Mountain and southwestern view toward the Sherwin Range and Mammoth Crest from the Town Loop Trail are currently afforded for recreational trail users. However, similar to views experienced along Old Mammoth Road, trail views would be sporadic as a result of existing mature pine trees and surrounding residential development. As the trail is situated to the south of the project site, and scenic views are westward, development of the proposed structure at the project site would not result in view obstruction of these resources. Thus, impacts in this regard would be less than significant.

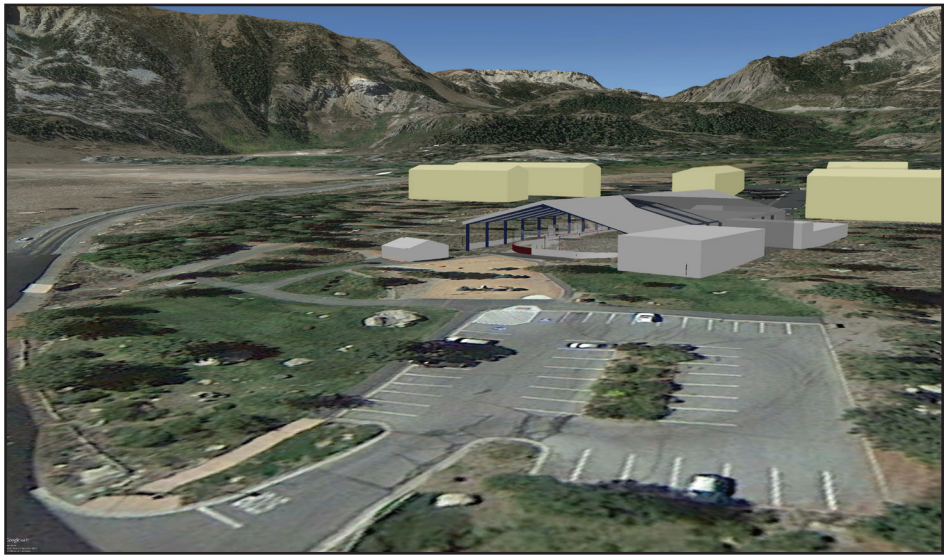
Perspective view looking northwest. Mammoth Creek Condominiums, La Vista Blanc Condominiums, Chateau Blanc #2 and Chateau de Montague Condominiums visible in the background.



Perspective view looking east from the terminus of Meadow Lane.



Perspective view looking south from near the pool area of the Chateau Blanc #2 Condominiums.



Perspective view looking southwest near Old Mammoth Road. La Vista Blanc and Mammoth Creek Condominiums visible in the background.

- Buildings that are located off-site.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Proposed Project Conceptual Massing

Exhibit 5.2-2

Mammoth Creek Park West. The project site currently provides scenic views of the Sherwin Range and Mammoth Crest to the south, and of Mammoth Mountain to the west from the existing Mammoth Creek Park West facility. These views are primarily afforded from the grass area and playground at Mammoth Creek Park West in the eastern portion of the project site. However, although afforded, these views are still sporadic as a result of existing mature pine trees both at the project site and in the vicinity. Upon construction of the proposed project, the existing Mammoth Creek Park West would be expanded to allow for increased public opportunity to utilize the project site. Due to the open nature of the proposed ice rink, the project would result in an increase in available southern public views toward the Sherwin Range and Mammoth Crest. Thus, public views at the project site toward scenic resources would be increased and impacts in this regard would be less than significant.

Due to the proposed setbacks, massing, and scale of the new multi-use facilities structure, existing views of the Sherwin Range, Mammoth Crest, and Mammoth Mountain would not be obstructed. In addition, the project design would allow for increased public views of the Sherwin Range and Mammoth Crest to the south from the proposed structure. Therefore, project implementation would result in a less than significant impact in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM VISUAL CHARACTER/QUALITY

AES-3 PROJECT IMPLEMENTATION COULD DEGRADE THE VISUAL CHARACTER/QUALITY OF THE SITE AND ITS SURROUNDINGS.

Impact Analysis: The project site is currently developed with Mammoth Creek Park West. This existing recreational facility provides active recreational (park and picnic) opportunities at the project site. The majority of the western portion of the project site is open space/scrub habitat that is only nominally accessible to the public. As Mammoth Creek Park West is situated along the urban fringe of the Town, the existing visual character at the site includes both active and passive recreational land uses with a partially forested character partial distant views to the Sherwin Range and Mammoth Crest to the south, and Mammoth Mountain to the west.

Development of the proposed project would alter the existing visual character of the site and surrounding area, as a new 35-foot structure serving additional recreational opportunities, new hardscape and landscaping, and increased surface parking lot would be constructed at the project site. Existing access/circulation would remain similar to existing conditions. The new structure, including building architecture and color scheme would be required to be consistent with the policies and goals of the Town's Design Guidelines. Per Municipal Code Chapter 17.88, the overall color scheme would be subject to the Town Design Guidelines Color Handbook, subject to approval by the Town PEDC. The project would construct a perimeter wall along the periphery of the rink, between the structures for the first phase of the project. This new wall feature would be constructed of similar color, material, and architectural style as the proposed structures. This wall would also be subject to the Town's Design Guidelines and Architectural Review process as well.

Per Municipal Code Section 17.32.100(c), landscape design would be required to be Town standards. Large pine trees are present on-site and may be required to be removed as part of the proposed project. However, all tree removal activities would be required to comply with Municipal Code Section 17.36.140, which requires a tree removal and protection plan. For those trees removed, the Town would be required to mitigate with tree replacement at a ratio determined by the Community and Economic Development Manager (refer to Mitigation Measure BIO-1). If replacement plantings of the removed trees is required, the minimum replacement tree size would be required to be seven gallons. Further, replacement would be limited to plantings in areas suitable for tree replacement with species identified in the Town of Mammoth Lakes' Recommended Plant List. Replacement requirements may also be determined based on the valuation of the tree as determined by a Registered Professional Forester or arborist. Overall, the Design Review process would ensure that landscaping would enhance the character of the on-site development and would be required to be compatible with, and complementary to, the natural environment in Mammoth Lakes and the surrounding region.

Although the proposed project would increase the active recreational uses at the project site (including construction of a new 35-foot structure), the existing views toward visual resources would at Mammoth Creek Park West would be expanded. Proposed landscaping would be required to meet Municipal Code requirements, including tree replacement. Further, the proposed 35-foot structure would be similar in visible massing to the existing buildings in the surrounding area (which range in height from 15 to 40 feet). Last, the proposed project would be consistent with the recreational intent of the site, and would comply with the existing OS land use designation and P-QP zoning for the site. With implementation of the recommended Mitigation Measure BIO-1 and the Town's Municipal Code, including compliance with the Town's Design Review process, long-term impacts pertaining to the degradation of character/quality would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

LIGHT AND GLARE

AES-4 IMPLEMENTATION OF THE PROPOSED PROJECT COULD GENERATE ADDITIONAL LIGHT AND GLARE BEYOND EXISTING CONDITIONS.

Impact Analysis: Light pollution (also known as photopollution or luminous pollution) refers to light that people find annoying or harmful. Because not everyone is irritated by the same lighting sources, light pollution has a measure of subjectivity. It is common for one person's light "pollution" to be light that is desirable for another. Light trespass occurs when unwanted light enters one's property, for instance, by shining over a neighbor's fence. A common light trespass problem occurs when a strong light enters the window of one's home from outside, causing problems such as sleep deprivation or the blocking of an evening view.

Glare is the result of excessive contrast between bright and dark areas in the field of view and is primarily a road safety issue, as bright and/or badly shielded lights around roads may partially blind drivers or pedestrians unexpectedly. There are three types of glare: blinding glare, which is

completely blinding and leaves temporary vision deficiencies; disability glare, which describes such effects as being blinded by automobile headlights, thus causing a significant reduction in sight capabilities; and discomfort glare, which does not typically cause a dangerous situation in itself, and is mostly annoying and irritating.

Short-Term Construction Lighting

Short-term light and glare impacts associated with construction activities would likely be limited to nighttime lighting (for security purposes) in the evening hours. In accordance with Chapter 15.08.020 (hours of working) in the Town's Municipal Code, operations allowed under a building permit would be limited to the hours between 7:00 a.m. and 8:00 p.m., Monday through Saturday. Work hours on Sundays and Town recognized holidays would be limited to the hours between 9:00 a.m. and 5:00 p.m. and permitted only with the approval of the building official or designee. Thus, construction activities would be required to cease no later than 8:00 p.m. With implementation of Mitigation Measure AES-3, all construction-related nighttime security lighting, if necessary, would be oriented downward and away from adjacent residential areas. Lighting would consist of the minimal wattage necessary to provide safety at the construction site. As these impacts would only last until 8:00 p.m., and would cease upon completion of construction, with compliance with Mitigation Measure AES-3, impacts in this regard would be reduced to less than significant levels.

Long-Term Operational Lighting

Currently, light and glare sources are nominal at the project site (one exterior security light on the Mammoth Creek Park West bathroom facility). Street lighting and pedestrian lighting along Old Mammoth Road to the north and south of the project site are also present. Lighting in the surrounding area occurs as a result of commercial and residential exterior security lighting, and interior lighting sources at the condominiums to the north, southwest, and west of the project site. No traffic signal lighting currently exists adjoining the project site; however, as noted above, pedestrian safety lighting is present along Old Mammoth Road.

Implementation of the proposed project would result in increased lighting at the project site compared to existing conditions. The proposed structures would include increased exterior security/pedestrian lighting, and interior lighting from the proposed structure. The proposed project would be required to comply with the Municipal Code Section 17.36.030, *Exterior Lighting*. An outdoor lighting plan would be required to be submitted in conjunction with the application for design review approval. The plan would be required to show that all outdoor lighting fixtures are designed, located, installed, aimed downward or toward structures, retrofitted if necessary, and maintained in order to prevent glare, light trespass, and light pollution. Outdoor lighting installations must be designed to avoid harsh contrasts in lighting levels between the project site and the adjacent properties. With compliance with the Town's Municipal Code, impacts in this regard would be reduced to less than significant levels.

Development of the project would construct a large roof structure to cover the proposed ice rink, which could cause increased daytime glare. The project would be required to comply with Mitigation Measure AES-4, which would require a non-reflective finish to be applied to building materials, including the roof structure. Compliance with Mitigation Measure AES-4 would ensure

that nearby viewers are not exposed to substantial daytime glare and impacts in this regard would be reduced to less than significant levels.

The project may also include photovoltaic and/or solar panels along the south-facing pitch of the roof that could cause glare. However, glare from photovoltaic panels would be minimal, as these systems absorb light rather than reflect it. Therefore, potential increased glare impacts resulting from the photovoltaic panels would not result in significant glare impacts onto surrounding sensitive uses.

Mitigation Measures:

AES-3 All construction-related lighting fixtures (including portable fixtures) shall be oriented downward and away from adjacent residential areas. Lighting shall consist of the minimal wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the Community and Economic Development Manager for review concurrent with Grading Permit application.

AES-4 Prior to issuance the Building Permit, the Town shall identify on the building plans that potential reflective building materials (e.g., the roof and windows) shall use a non-reflective finish.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.2.5 CUMULATIVE IMPACTS

The cumulative impacts discussed below rely upon the list of cumulative development projects in Table 4-1, *Cumulative Projects List*, Section 4.0, *Basis of Cumulative Analysis*, of this EIR. The analysis below discloses the cumulative impacts from those projects listed in Table 4-1, and the proposed project's contribution to that cumulative impact. The nearest cumulative projects to the project site in Table 4-1 are the Mammoth Creek Inn Expansion project (which adjoins the project site to the northeast), Snowcreek VIII project (located as close as 350 feet to the south), and Mammoth Creek Gap Closure Project (located approximately 450 feet south); refer to Exhibit 4-1, *Cumulative Projects Map*.

SHORT-TERM VISUAL CHARACTER/QUALITY

- **PROJECT CONSTRUCTION ACTIVITIES, COMBINED WITH CONSTRUCTION ACTIVITIES FOR OTHER RELATED CUMULATIVE PROJECTS, COULD TEMPORARILY DEGRADE THE VISUAL CHARACTER/QUALITY OF THE DEVELOPMENT SITES AND THEIR SURROUNDINGS.**

Impact Analysis: As noted above, the nearest cumulative projects to the project site include the Mammoth Creek Inn Expansion project, and the Snowcreek VIII project. It is unknown at this time when these projects would be constructed. Construction staging areas, truck hauling, and grading activities may be conducted at these cumulative project sites. Mammoth Creek Inn Expansion project has undergone the design review process and would still need to obtain

appropriate building/grading permits. The Snowcreek VIII project would be subject to approval through the design review process set forth by the PEDC. All grading and earthwork activities would be required to be conducted in accordance with an approved construction grading plan and grading permit issued by the Mammoth Lakes Public Works Department. Thus, construction impacts from these cumulative projects would be lessened through the Town's design review and permitting processes. The Mammoth Creek Gap Closure Project would not result in significant cumulative impacts pertaining to the degradation of character/quality during construction, as this is a trail improvement project and would not involve substantial disturbance activities. Thus, overall cumulative impacts would occur during construction activities. However, with implementation of existing Town standards and regulations during construction, these cumulative impacts would be reduced.

Per Impact Statement AES-1, project construction activities could result in short-term visual degradation at the project site due to staging equipment, soil piles, truck hauling, etc. However, project construction activities are considered to be short-term and would cease upon project completion. In addition, Mitigation Measures AES-1 and AES-2 (requiring staging area screening and a construction hauling plan) would reduce short-term construction impacts to a less than significant level. Thus, the proposed project would not significantly cumulatively contribute to the degradation of character/quality during construction.

Mitigation Measures: Refer to Mitigation Measure AES-1 and AES-2.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

SCENIC VIEWS AND VISTAS

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD HAVE AN ADVERSE EFFECT ON A SCENIC VISTA.**

Impact Analysis: Two cumulative projects (Mammoth Creek Inn Expansion and Snowcreek VIII) are located within the viewshed of the project site. Upon construction of these cumulative projects, new structures could increase public view blockage to the visual resources to the south (the Sherwin Range and Mammoth Crest) and west (Mammoth Mountain). Mammoth Creek Inn Expansion project has already undergone the Town's Design Review process to ensure that no significant impacts regarding public view blockage has occurred. The Snowcreek VIII project would be required to be analyzed as part of the Town's Design Review process to minimize impacts regarding public view blockage as well. The Mammoth Creek Gap Closure Project would not result in view blockage, as this is a trail improvement project.

As discussed in Impact Statement AES-2, the proposed project would maintain the existing designated scenic views along Old Mammoth Road, the Loop Trail, and Mammoth Creek Park West, resulting in less than significant impacts to scenic views. Thus, although cumulative development may increase view blockage to visual resources as seen from scenic views and vistas, the proposed project would not cumulatively contribute to a substantial visual impact in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM VISUAL CHARACTER/QUALITY

- **PROJECT IMPLEMENTATION, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD DEGRADE THE VISUAL CHARACTER/ QUALITY OF THE DEVELOPMENT SITES AND THEIR SURROUNDINGS.**

Impact Analysis: Mammoth Creek Inn Expansion project has already undergone the Town's Design Review process to ensure compatibility with the surrounding character/quality. However, the specific design details for the Snowcreek VIII project is unknown at this time. This cumulative project's impacts to visual character would be dependent upon project- and site-specific variables, including proximity to visually sensitive receptors, the visual sensitivity of the respective development sites, and the compatibility of a project's architectural style, scale, and setbacks with the surrounding land uses. The potential impacts of this cumulative project on the visual character of the development site and its surroundings would be subject to the Town's Design Guidelines and would be enforced through the Town's Design Review process set forth by the PEDC. This process would ensure compliance with the Town's desired architectural styles, color schemes, materials, etc. for that specific area. The Mammoth Creek Gap Closure Project would not result in significant cumulative impacts pertaining to the degradation of character/quality during operations, as this is a trail improvement project.

As discussed in Impact Statement AES-3, implementation of proposed project would result in less than significant impacts pertaining to the degradation of character/quality upon compliance with the Municipal Code and the recommended Mitigation Measure BIO-1. Thus, cumulative impacts to long-term character/quality would be less than significant, and the proposed project would not significantly contribute to cumulative long-term visual impacts.

Mitigation Measures: Refer to Mitigation Measures BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

LIGHT AND GLARE

- **PROJECT IMPLEMENTATION, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD CUMULATIVELY CONTRIBUTE TO SIGNIFICANT LIGHT/GLARE IMPACTS.**

Impact Analysis: Development of cumulative projects could result in increased lighting in the Town. The impacts related to light and glare from the nearest cumulative project would be dependent upon project- and site-specific variables, including proximity to visually sensitive receptors and the visual sensitivity of the respective development sites. The potential impacts of the Mammoth Creek Inn Expansion project, Snowcreek VIII project, Mammoth Creek Gap Closure Project, and other projects related to light and glare would be evaluated on a project-by-project

basis. Potential increased lighting impacts would be minimized through compliance with Municipal Code Section 17.36.030, on a project-by-project basis, which would ensure proper lighting fixtures, placement, and minimal spillover.

As discussed in Impact Statement AES-4, the project's short-term construction lighting impacts would be less than significant with implementation of the recommended Mitigation Measure AES-3. Thus, the project would not result in a substantial cumulative contribution to light and glare during construction. Further, compliance with the Town's Municipal Code, Section 17.36.030, would minimize the project's lighting impacts to less than significant levels. Last, compliance with Mitigation Measure AES-4 would reduce the project's potential for increased daytime glare to less than significant levels as well. With implementation of the Municipal Code and Mitigation Measures AES-3 AES-4, the project would not cumulatively contribute to the creation of substantial new lighting or glare and impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measures AES-3 and AES-4.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.2.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No unavoidable significant impacts related to aesthetics/light and glare have been identified following implementation of mitigation measures referenced in this section.

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5.3 Biological Resources

5.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources on the project site, and the potential adverse impacts associated with implementation of the proposed project. An analysis of compliance with all Federal, State, and local regulations and policies regarding biological resources has also been conducted. This section is primarily based upon the *Habitat Assessment for the Mammoth Creek Park West New Community Multi-Use Facilities Project* (Habitat Assessment), prepared by Michael Baker International, Inc., dated August 2, 2016; refer to Appendix 11.2, *Habitat Assessment*.

5.3.1 EXISTING SETTING

The project site is approximately 4.9 acres and is bounded by multi-family residential uses and commercial uses to the north, Old Mammoth Road to the east, recreational open space to the south, and multi-family residential uses to the west. The areas north of the project site have generally undergone a conversion from natural habitats into residential, and commercial land uses, while the area south of the project site is generally undeveloped, open space. The project site is comprised of Mammoth Creek Park West, which currently includes playground equipment, grass/open space, picnic areas, trail connections, and a surface parking lot for 44 vehicles. Vehicular access to the site is provided via Old Mammoth Road, and pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site. Mammoth Creek is south of the project site.

VEGETATION

The eastern half of the project site consists of the existing Mammoth Creek Park West that is developed and no longer supports native plant communities. However, the western half of the project site is undeveloped and supports native vegetation surrounded by existing developments with several existing dirt trails. One plant community was observed within the boundaries of the project site during the Habitat Assessment: big sagebrush scrub with scattered pine trees. In addition, three human-modified areas were observed within the boundaries of the project site during the Habitat Assessment: landscaped, disturbed, and developed. These vegetation communities and land cover types are described in further detail below; refer to Exhibit 5.3-1, *Existing On-Site Vegetation*.

- *Big Sagebrush Scrub* – The undeveloped western half of the project is dominated by a big sagebrush scrub plant community that is primarily composed of big sagebrush (*Artemesia tridentata*). Other common larger woody plant species observed within this plant community include antelope bush (*Purshia tridentate*), and mountain snowberry (*Symphoricarpos rotundifolius*) with sparse aspen (*Populus tremuloides*). Other common plant species observed in this plant community include rabbibrush (*Ericameria nauseosa*), western wallflower (*Erysimum capitatum*), woolly mule's ears (*Wyethia millis*), one seeded pussypaws (*Calyptridium monospermum*), and goosefoot violet (*Viola purpurea* ssp. *purpurea*).

  Within the big sagebrush scrub plant community are scattered pine trees, primarily Jeffery pine (*Pinus jeffreyi*), and lodgepole pine (*Pinus contorta* ssp. *murrayana*). These individual pine trees are not grouped together and do not provide a dense canopy.

Source: Michael Baker International, August 2016.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Existing On-Site Vegetation

Exhibit 5.3-1

- *Landscaped* – The majority of the eastern half of the project site is comprised of landscaped vegetation associated with Mammoth Creek Park West. This area consists primarily of manicured lawns, and ornamental vegetation that have been planted for the park.

- *Disturbed* – Disturbed areas on the project site no longer support native vegetation or comprise a native plant community, but are generally un-vegetated except for sparse ruderal/weedy plant species that have been subject to human disturbances from recreational activities. Disturbed areas include dirt trails and are composed of heavily compacted soils with early successional and non-native plant species.

- *Developed* – Developed areas generally encompass all buildings, as well as paved, impervious surfaces. Developed areas within the proposed project site include a parking lot, bathroom, park recreational equipment, and paved access routes associated with the Mammoth Creek Park West, and the existing paved Old Mammoth Road.

WILDLIFE

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predations. This section provides a discussion of those wildlife species that were observed or expected to occur within the project site. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

- *Fish* – No fish or hydrogeomorphic features (e.g., creeks, ponds, lakes, reservoirs) with frequent sources of water that would support populations of fish were observed on the project site. It should be noted that Mammoth Creek, located approximately 240 feet south of and outside of the project site supports native fish populations. No water features occur on the project site that would support fish, and as a result, fish are presumed absent from the project site.

- *Amphibians* – No amphibians or hydrogeomorphic features (e.g., creeks, ponds, lakes, reservoirs) with frequent sources of water that would support amphibian species were observed on the project site. Mammoth Creek, south of the project site, has the potential to support Sierran treefrog (*Pseudacris sierra*). However, Mammoth Creek is off-site and no water features occur on the project site that would support amphibians. As a result, no amphibians are expected to occur and are presumed absent from the project site.

- *Reptiles* – Based on the habitats present, the project site provides marginal habitat for a limited number of reptilian species acclimated to human presence and disturbance. No reptilian species were detected during the Habitat Assessment. Reptilian species expected to occur on-site include Great Basin fence lizard (*Sceloporus occidentalis longipes*), and sagebrush lizard (*Sceloporus graciosus gracilis*).

- *Birds* – The project site provides suitable foraging and cover habitat for a variety of resident and migrant bird species. Common bird species detected during the field survey included stellar jay (*Cyanocitta stelleri*), brewer's blackbird (*Euphagus cyanocephalus*), common raven (*Corvus corax*), northern flicker (*Colaptes auratus*), northern mockingbird (*Mimus polyglottos*), Bewick's wren (*Thryomanes bewickii*), mountain chickadee (*Poecile gambeli*), red-breasted nuthatch (*Sitta canadensis*), mourning dove (*Zenaida macroura*), American robin (*Turdus migratorius*), brown-

headed blackbird (*Molothurs ater*), lesser goldfinch (*Spinus psaltria*), song sparrow (*Melospiza melodia*), cliff swallow (*Petrochelidon pyrrhonota*), and western wood-pewee (*Contopus sordidulus*).

- *Mammals* – The project site and surrounding habitat has the potential to support a limited amount of mammalian species adapted to human disturbances. Only one mammal was observed on-site during the habitat site investigation, lodgepole chipmunk (*Tamias speciosus*). However, most mammal species are nocturnal and are difficult to observe during a diurnal field visit. Other mammalian species that have the potential to occur on-site and have adapted to human presence and development include mule deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), and coyote (*Canis latrans*).

NESTING BIRDS

No remnant or active avian nests were observed during the June 8, 2016 site investigation. However, the plant communities within the proposed project footprint provide suitable foraging and nesting habitat for a variety of year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. The vegetation located within and surrounding the project site have the potential to provide suitable nesting opportunities for avian species.

MIGRATORY CORRIDORS AND LINKAGES

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site is not located within any local or regional designated migratory corridors or linkages. However, Mammoth Creek, south of and outside of the project site, has the potential to provide west to east wildlife movement opportunities along the riparian corridor associated with the creek from the mountains to the valley floor.

JURISDICTIONAL AREAS

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The United States Army Corps of Engineers (USACE) Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the California Department of Fish and Wildlife (CDFW) regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage or wetland features were observed on the project site during the site investigation that would be considered jurisdictional by the USACE, Regional Board, or CDFW. It should be noted that Mammoth Creek generally flows west to east approximately 240 feet south of the project site. The riparian corridor associated with the Creek is topographically confined and lined with coyote willow (*Salix exigua*), Booth's willow (*S. boothii*) and shining willow (*S. lucida* ssp. *caudata*), alder (*Alnus* sp.), and aspen.

SPECIAL STATUS SPECIES

The California Natural Diversity Database (CNDDB) was queried for reported locations of listed and special-status plant and wildlife species as well as special-status natural plant communities in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag USGS 7.5-minute quadrangles. A search of published records of these species within these quadrangles was conducted using the CNDDB Rarefind 5 online software. The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The Habitat Assessment was used to assess the ability of the plant communities found on-site to provide suitable habitat for relevant special-status plant and wildlife species.

The literature search identified 48 special-status plant species, 20 special-status wildlife species, and one special-status plant community as having the potential to occur within the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag United States geological Survey (USGS) 7.5-minute quadrangles; refer to Table 5.3-1, *Potentially Occurring Sensitive Biological Resources*. These special-status plant and wildlife species were evaluated for their potential to occur on the project site based on habitat requirements, availability/quality of suitable habitat, and known distributions.

Table 5.3-1
Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	**Status**		**Observed On-Site**	**Potential to Occur**
Wildlife Species				
Accipiter gentilis Northern goshawk	Fed: CA:	None None	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.
Anaxyrus canorus Yosemite toad	Fed: CA:	**THR** None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Aplodontia rufa californica Sierra Nevada mountain beaver	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Bombus morrisoni Morrison bumble bee	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Buteo swainsoni Swainson's hawk	Fed: CA:	None **THR**	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Catostomus fumeiventris Owens sucker	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Gulo gulo California wolverine	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Table 5.3-1 [continued]
Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	Status		Observed On-Site	Potential to Occur
Wildlife Species (continued)				
Lasionycteris noctivagans silver-haired bat	Fed: CA:	None None	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.
Lepus townsendii townsendii western white-tailed jackrabbit	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Martes caurina sierra Sierra marten	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Myotis evotis long-eared myotis	Fed: CA:	None None	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.
Myotis yumanensis Yuma myotis	Fed: CA:	None None	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.
Ochotona princeps schisticeps grey-headed pika	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Oncorhynchus clarkia seleniris Paiute cutthroat trout	Fed: CA:	**THR** None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Pekania pennant fisher – west coast DPS	Fed: CA:	**Proposed THR** **Candidate THR**	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Picoides arcticus black-backed woodpecker	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Rana sierra Sierra Nevada yellow-legged frog	Fed: CA:	**END** **THR**	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Sorex lyelli Mount Lyell shrew	Fed: CA:	None None	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Strix nebulosi great grey owl	Fed: CA:	None **END**	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Vulpes vulpes necator Sierra Nevada red fox	Fed: CA:	None **THR**	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Plant Species				
Agrostis humilis mountain bent grass	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Antennaria pulchella beautiful pussy-toes	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Arabis repanda var. greenei Greene's rockcress	Fed: CA: CNPS:	None None 3.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Astragalus johannishowellii Long Valley milkvetch	Fed: CA: CNPS:	None Rare 1B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Astragalus kentrophyta var. danaus Sweetwater Mountains milk-vetch	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Astragalus monoensis Mono milk-vetch	Fed: CA: CNPS:	None Rare 1B2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Atriplex pusilla smooth saltbush	Fed: CA: CNPS:	None None 2B.1	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Boechera cobrensis Masonic rockcress	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Table 5.3-1 [continued]
Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	Status		Observed On-Site	Potential to Occur
Plant Species (continued)				
Boechera pinzliae Pinzl's rockcress	Fed: CA: CNPS:	None None 1B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Boechera tularensis Tulare rockcress	Fed: CA: CNPS:	None None 1B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Bruchia bolanderi Bolander's bruchia	Fed: CA: CNPS:	None None 4.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex congdonii Congdon's sedge	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex davyi Davy's sedge	Fed: CA: CNPS:	None None 1B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex geyeri Geyer's sedge	Fed: CA: CNPS:	None None 4.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex incurviformis Mt. Dana sedge	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex petasata Liddon's sedge	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex scirpoidea ssp. pseudoscirpoidea Western single-spiked sedge	Fed: CA: CNPS:	None None 2B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex tiogana Tioga Pass sedge	Fed: CA: CNPS:	None None 1B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Claytonia megarhiza fell-fields claytonia	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Crepis runcinata fiddleleaf hawksbeard	Fed: CA: CNPS:	None None 2B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Cryptantha glomeriflora clustered-flower cryptantha	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba cana canescent draba	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba incrassata Sweetwater Mountain draba	Fed: CA: CNPS:	None None 1B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba lonchocarpa spear-fruited draba	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba praealta tall draba	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Table 5.3-1 [continued]
Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	Status		Observed On-Site	Potential to Occur
Plant Species (continued)				
Elymus scribneri Scribner's wheat grass	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Epilobium howellii subalpine fireweed	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Ericameria nana dwarf goldenbush	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Eriogonum microthecum var. alpinum northern limestone buckwheat	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Eriophorum gracile slender cottongrass	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Festuca minutiflora small-flowered fescue	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Hulsea brevifolia short-leaved hulsea	Fed: CA: CNPS:	None None 1B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Hulsea vestita ssp. parryi Parry's sunflower	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Ivesia unguiculata Yosemite ivesia	Fed: CA: CNPS:	None None 4.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Kobresia myosuroides Seep kobresia	Fed: CA: CNPS:	None None 2B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Lupinus duranii Mono Lake lupine	Fed: CA: CNPS:	None None 1B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Meesia longiseta long seta hump moss	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Mentzelia monoensis Mono Craters blazing star	Fed: CA: CNPS:	None None 4.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Minuartia stricta bog sandwort	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Phacelia inyoensis Inyo phacelia	Fed: CA: CNPS:	None None 1B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Potamogeton robbinsii Robbin's pondweed	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Puccinellia simplex California alkali grass	Fed: CA: CNPS:	None None 1B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Table 5.3-1 [continued]
Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	Status		Observed On-Site	Potential to Occur
Plant Species (continued)				
Salix brachycarpa *var. brachycarpa* Short-fruited willow	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Salix nivalis snow willow	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Sedum pinetorum Pine City sedum	Fed: CA: CNPS:	None None 3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Senecio hydrophiloides sweet marsh ragwort	Fed: CA: CNPS:	None None 4.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Stuckenia filiformis *ssp. alpine* slender-leaved pondweed	Fed: CA: CNPS:	None None 2B.2	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Triglochin palustris marsh arrow-grass	Fed: CA: CNPS:	None None 2B.3	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Sensitive Habitats				
Mono Pumice Flat	CDFW Sensitive Habitat		No	**Absent**

Notes:

U.S. Fish and Wildlife Service (USFWS) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered
THR- California Threatened
FP- Fully Protected
CSC- California Species of Concern
WL- Watch List

California Native Plant Society (CNPS)
California Rare Plant Rank
1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is Needed – A Review List
4 Plants of Limited Distribution – Watch List

Threat Ranks
0.1- Seriously Threatened in California
0.2- Moderately Threatened in California
0.3- Not Very Threatened in California

Source: Michael Baker International, Inc., *Habitat Assessment for the Mammoth Creek Park West New Community Multi-Use Facilities Project*, August 2, 2016.

Special-Status Plants

Forty-eight (48) special-status plant species have been recorded in the CNDDB and CNPS in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles. No sensitive plant species were observed on-site during the Habitat Assessment. Based on habitat requirements for specific species and the availability and quality of habitats needed by each special-status plant species, it was determined that the project site does not provide suitable habitat for special-status species known to occur in the general vicinity of the project site. All special-status plant species are presumed to be absent from the project site.

Special-Status Wildlife

Twenty (20) special-status wildlife species have been recorded in the CNDDB in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles. No special-status wildlife species observed on-site during the June 8, 2016 field investigation. Based on habitat requirements for specific species and the availability and quality of habitats needed by each special-status wildlife species, it was determined that the project site has a low potential to provide suitable foraging habitat for northern goshawk (*Accipiter gentilis*), silver-haired bat (*Lasionycteris noctivagans*), long-eared myotis (*Myotis evotis*), and Yuma myotis (*Myotis yumanensis*). All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability, and quality of habitat needed by each species and known distributions.

- *Northern goshawks* – Northern goshawks typically nest in mature and old growth forests dominated by large trees with a high canopy cover with open understory, and prefer site with a creek, pond or lake nearby. Northern goshawks may rely heavily on mature forests while foraging, but may also forage in younger forests, edges, and openings. They also forage in the forest along riparian corridors, and may forage in open habitats on forests edges.

- *Silver-haired bat* – Silver-haired bats are among the most common bats in forested areas in the United States, and are considered to be a solitary, tree roosting species. Prefer temperate woodland and montane coniferous forests close to streams, ponds, or rivers. They tend to be fond of willow, maples and ash trees. They have a short-range feeding strategy, traveling over woodland ponds and streams.

- *Long-eared myotis* – Long-eared myotis roost in buildings, crevices, spaces under tree bark, and snags. This bat is found in a wide range of habitats, but is most commonly found in mixed coniferous forests. It is often assumed that bodies of open water and riparian areas serve as foraging and drinking sites for bats, and thus would be located close to day-time roost sites in order to conserve energy. Most research suggests that long-eared myotis forage in the vicinity of water.

- *Yuma myotis* – Yuma myotis is found in a variety of habitats, ranging from juniper and riparian woodlands to desert regions near open water. This bat species has a strong affinity to bodies of water and can be found near rivers, streams, ponds, and lakes which it uses as foraging sites and sources of drinking water. Yuma myotis roots in buildings, mines, caves, attics, underneath bridges, and other similar structures.

Special-Status Plant Communities

The CNDDB lists one special-status plant community as having been recorded in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles: Mono pumice flat. This special-status plant community does not occur on-site.

5.3.2 REGULATORY SETTING

Threatened and endangered species are listed by the U.S. Fish and Wildlife Service (USFWS) and CDFW. In California, three agencies generally regulate activities within inland streams, wetlands, and riparian areas: USACE; the CDFW; and the Regional Water Quality Control Board (RWQCB). The USACE Regulatory Branch regulates activities pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. The CDFW regulates activities under CDFW Code Sections 1600-1607. The RWQCB regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Act.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 is intended to protect plants and animals that have been identified as being at risk of extinction and classified as either threatened or endangered. FESA also regulates the "taking" of any endangered fish or wildlife species, per Section 9 of the Act. A responsible agency or individual landowners are required to submit to a formal consultation with the USFWS to assess potential impacts to listed species as the result of a development project, pursuant to FESA Sections 7 and 10. The USFWS is required to make a determination as to the extent of impact to a particular species a project would have. If it is determined that potential impacts to a species would likely occur, measures to avoid or reduce such impacts must be identified.

Sensitive Species

The United States Forest Service (USFS) designates plant and animal species identified by a regional forester that are not listed or proposed for listing under FESA for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution, as "sensitive." Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661-667e) requires that whenever waters or channel of a stream or other body of water are proposed or authorized to be modified by a public or private agency under a federal license or permit, the federal agency must first consult with the USFWS and/or National Oceanic and Atmospheric Administration (NOAA) Fisheries and with the head of the agency exercising administration over the wildlife resources of the state where construction

would occur (in this case the CDFW), with a view to conservation of birds, fish, mammals, and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.

Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act

The Migratory Bird Treaty Act (MBTA) implements various treaties for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Unless permitted by regulations, the MBTA provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. The MBTA protects the nests of all native bird species, including common species such as mourning dove, Anna's hummingbird, and common yellowthroat.

The Bald Eagle Protection Act (16 U.S.C. 668) was passed in 1940 to protect bald eagles and was later amended to include golden eagles. Under the act, it is unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, their parts, products, nests, or eggs. Take includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing eagles.

Federal Clean Water Act

SECTION 404

The USACE maintains regulatory authority over the discharge of dredged or fill material into the waters of the United States, pursuant to Section 404 of the CWA. The USACE and U.S. Environmental Protection Agency (EPA) define "fill material" as any "material placed in waters of the United States where the material has the effect of: (i) Replacing any portion of a water of the United States with dry land; or (ii) Changing the bottom elevation of any portion of the waters of the United States." Fill material may include sand, rock, clay, construction debris, wood chips, or other similar "materials used to create any structure or infrastructure in the waters of the United States." The term "waters of the United States" includes the following:

- All waters that have, are, or may be used in interstate or foreign commerce (including sightseeing or hunting), including all waters subject to the ebb and flow of the tide;
- Wetlands;
- All waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation or destruction of which could affect interstate or foreign commerce;
- All impoundments of water mentioned above;
- All tributaries of waters mentioned above;
- Territorial seas; and
- All wetlands adjacent to the waters mentioned above.

In the absence of wetlands, the USACE's jurisdiction in non-tidal waters extends to the Ordinary High Water Mark (OHWM), which is defined as *"…that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character*

of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area (33 CFR 328.3(e)).”

Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands are jointly defined by the USACE and EPA as *“those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3(b)).”*

SECTION 401

The RWQCB is the primary agency responsible for protecting water quality in California. The RWQCB regulates discharges to surface waters under the Federal CWA and the California Porter-Cologne Water Quality Control Act. The RWQCB’s jurisdiction extends to all waters of the State and to all waters of the United States, including wetlands (isolated and non-isolated conditions). Through 401 Certification, Section 401 of the CWA allows the RWQCB to regulate any proposed Federally-permitted activity that may affect water quality. Such activities include the discharge of dredged or fill material, as permitted by the USACE, pursuant to Section 404 of the CWA. The RWQCB is required to provide “certification that there is reasonable assurance that an activity which may result in the discharge to waters of the United States will not violate water quality standards,” pursuant to Section 401. Water Quality Certification must be based on the finding that proposed discharge will comply with applicable water quality standards, which are given as objectives in each of the RWQCB’s Basin Plans.

In addition, pursuant to the Porter-Cologne Water Quality Control Act, the State is given authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if a Section 404 does not apply. “Waste” is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

STATE OF CALIFORNIA

California Endangered Species Act

The California Endangered Species Act (CESA) of 1984, in combination with the California Native Plant Protection Act of 1977, regulates the listing and take of plant and animal species designated as endangered, threatened, or rare within the State (Sections 2074.2 and 2075.5 of the Fish and Game Code). The State of California also lists Species of Special Concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. The CDFW is given the responsibility by the State to assess development projects for their potential to impact listed species and their habitats. State listed special-status species are also addressed through the issuance of a 2081 permit (Memorandum of Understanding).

California Department of Fish and Game Code

Within the State of California, fish, wildlife, and native plant resources are protected and managed by the CDFW. The Fish and Game Commission and/or the CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the Fish and Game Code address the protected species: Section 3511 (birds); Section 4700 (mammals); Section 5050 (reptiles and amphibians); and, Section 5515 (fish).

California Department of Fish and Wildlife Lake and Streambed Alteration Agreements

Section 1602 of the Fish and Game Code requires any person, state, or local governmental agency, or public utility to notify the CDFW before commencing any activity that would result in one or more of the following:

- Substantially obstruct or divert the natural flow of a river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
- Deposit debris, waste, or other material that could pass into any river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, ephemeral, and episodic rivers, streams, and lakes within the State of California. While the jurisdictional limits are similar to the limits defined by USACE regulations, CDFW jurisdiction includes riparian habitat supported by a river, stream, or lake with or without the presence or absence of saturated soil conditions or hydric soils. CDFW jurisdiction generally includes to the top of bank of the stream, or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Any project that occurs within or in the vicinity of a river, steam, lake, or their tributaries typically requires notification of the CDFW, including rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life, and watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.

California Native Plant Society

The CNPS publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California (Inventory) in both hard copy and electronic version. The Inventory assigns plants to the following categories:

1A – Presumed extinct in California and either rare or extinct elsewhere;
1B – Rare, threatened, or endangered in California and elsewhere;
2A – Presumed extirpated in California, but common elsewhere;
2B – Rare, threatened, or endangered in California, but more common elsewhere;
3 – Plants for which more information is needed; and
4 – Plants of limited distribution.

Additional endangerment codes are assigned to each taxa as follows:

0.1 Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat);

0.2 Moderately threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat); and

0.3 Not very threatened in California (<20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

Plants on Lists 1A, 1B, 2A, 2B, and 3 of the CNPS Inventory consist of plants that may qualify for listing, and are given special consideration under CEQA during project review. Although plants on List 4 have little or no protection under CEQA, they are usually included in the project review for completeness.

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by Federal, State, and local conservation plans, policies, or regulations. The CDFW ranks sensitive communities as "threatened" or "endangered" and keeps records of their occurrences in its CNDDB. Sensitive vegetation communities are also identified by CDFW on its Natural Communities List recognized by the CNDDB. Impacts to sensitive natural communities and habitats identified in local or regional plans, policies, and regulations, or by federal or state agencies, must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

Fully Protected Species and Species of Special Concern

The classification of "fully protected" was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (fish at Section 5515, amphibian and reptiles at Section 5050, birds at Section 3511, and mammals at Section 4700) dealing with "fully protected" species states that these species ". . . may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take a fully protected (species)," although take may be authorized for necessary scientific research. This language makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW,

land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

California Environmental Quality Act

In addition to specific Federal and State statutes for the protection of threatened and endangered species, *CEQA Guidelines* Section 15380(b) provides that a species not listed on the Federal or State list of protected species may be considered rare or endangered if it can be shown that the species meets certain specified criteria. Modeled after definitions in the FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals, these criteria are given in *CEQA Guidelines* Section 15380(b). The effect of Section 15380(b) is to require public agencies to undertake reviews to determine if projects would result in significant effects on species not listed by either the USFWS or CDFW (i.e., candidate species). Through this process, agencies are provided with the authority to protect additional species from the potential impacts of a project until the appropriate government agencies have an opportunity to designate the species as protected, if deemed appropriate.

Critical Habitat

Under the Federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. In the event that a project may result in take or in adverse effects to a species' designated Critical Habitat, the project proponent may be required to engage in suitable mitigation. However, consultation for impacts to Critical Habitat is only required when a project has a federal nexus (i.e., occurs on federal land, is issued federal permits [e.g., USACE Section 404 Clean Water Act permit], or receives any other federal oversight or funding). If a project does not have a federal nexus, consultation with the United States Fish and Wildlife Service (USFWS) is not required for loss or adverse modification to Critical Habitat.

The project site is not located within federally designated Critical Habitat. The closest designated Critical Habitat is located 2.4 miles south of the project site for Yosemite toad (*Anaxyrus canorus*), and 2.6 miles south of the project site for Sierra Nevada bighorn sheep (*Ovis Canadensis sierra*).

LOCAL REGULATIONS

In addition to Federal and State regulations, the *Town of Mammoth Lakes General Plan 2007* (General Plan) defines certain goals, policies, and implementation measures protecting natural resources. Also, the Town has adopted various codes and ordinances that provide protection to natural resources within the Town's limits.

Town of Mammoth Lakes General Plan

The Town of Mammoth Lakes policies pertaining to biological resources are contained in the Resource Management and Conservation Element of the General Plan (adopted August 2007). The intent of the Resource Management and Conservation Element is to establish and emphasize the Town's stewardship of the community's natural resources. These policies include, but are not limited to, the following:

- *R.1.A. Policy:* Be stewards of important wildlife and biological habitats within the Town's municipal boundary.
- *R.1.B. Policy:* Development shall be stewards of special status plant and animal species and natural communities and habitats.
- *R.1.C. Policy:* Prior to development, projects shall identify and mitigate potential impacts to site-specific sensitive habitats, including special status plant, animal species, and mature trees.
- *R.1.D. Policy:* Be stewards of primary wildlife habitats through public and/or private management programs. For example, construction of active and passive recreation and development areas away from the habitat.
- *R.1.E. Policy:* Support fishery management activities.
- *R.1.J. Policy:* Live safely with wildlife within our community.
- *R.2.E. Policy:* Require open space in the following areas:
  - Lands with slopes in excess of 20-25 percent
  - Wetland areas
  - Stream corridors
  - Scenic corridors
- *R.3.A. Policy:* Prohibit development in the vicinity of Mammoth Creek that does not maintain minimum established setbacks and protect stream-bank vegetation.
- *R.3.B. Policy:* Manage all properties held by the Town of Mammoth Lakes along the Mammoth Creek corridor for open space, habitat preservation, and passive recreation.
- *R.3.C. Policy:* Restore degraded areas within and adjacent to Mammoth Creek, in association with contiguous development projects or as off-site mitigation.
- *R.3.D. Policy:* Improve public access to Mammoth Creek through discretionary project review and other available means.

Town of Mammoth Lakes Municipal Code

The Town has adopted the following code requirements that provide protection to natural resources within the Town's limits.

- *Chapter 12.08, Land Clearing, Earthwork, and Drainage Facilities* – Regulates work on public and private property in order to control grading, earthwork, clearing, erosion, sedimentation, drainage interference, and to promote the conservation of natural resources, including the natural beauties of the land, streams and watersheds, hills, trees and vegetation; to protect the public health and safety; and to generally preserve the terrain and the flora in their natural state as much as possible.

- *Chapter 17.36.030, Exterior Lighting* – Provides rules and regulations for outdoor lighting within the Town to promote a safe, glare free, and pleasant nighttime environment for residents and visitors; to protect and improve safe travel for all modes of transportation; to prevent nuisances caused by unnecessary light intensity, glare, and light trespass; to protect the ability to view the night sky by restricting unnecessary upward projection of light; to phase out existing non-conforming fixtures that violate this section, including those owned by the Town and other public agencies; and to promote lighting practices and systems to conserve energy.

- *Chapter 17.36.140, Tree Removal and Protection* – Provides provisions to protect and to regulate the removal of certain trees, based on the important environmental, aesthetic and health benefits that trees provide to Mammoth Lakes residents and visitors, and the contribution of such benefits to public health, safety, and welfare, except in those instances outlined in Chapter 17.36.140(C) (i.e., removal of a tree that presents an immediate safety hazard to life or property, as determined by the Town Manager, Director, Building Official, Public Works Director, Police Chief, Fire Marshall, Public Utility Company, or their designees; routine tree maintenance, such as the trimming or thinning of branches; tree removal performed by the Town, public utilities, or other public agencies in public utility easements or public rights-of-way; tree removal for fuels reduction purposes on publicly owned land, performed in conjunction with an approved fuel reduction program or activity; removal of trees felled by natural weather conditions or an act of God; removal of visibly dead trees; and coniferous and deciduous trees with a "Diameter at Breast Height" (DBH) of less than 12 inches). These benefits include, but are not limited to, enhancement of the character and beauty of the community as a "Village in the Trees," protection of property values, provision of wildlife habitat, reduction of soil erosion, noise buffering, wind protection, and visual screening for development.

- *17.40.040(A), General Requirements* – Provides rules and regulations for the selection of landscaping materials to protect and preserve native and natural plan species, promote the survival of new plants, adhere to current local Fire Codes, protect against erosion, and preserve water. Recommendations for plant materials that could meet the requirements of this section are included in the Mammoth Lakes Recommended Plant List found in the *Making the Most of Every Drop* users guide.

5.3.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

The issues presented in the Initial Study Environmental Checklist (Appendix G of the *CEQA Guidelines*) have been utilized as thresholds of significance in this Section. Accordingly, biological

resources impacts resulting from the implementation of the proposed project may be considered significant if they would result in the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services (refer to Impact Statement BIO-1);

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Services (refer to Impact Statement BIO-2);

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (refer to Section 8.0, *Effects Found Not To Be Significant*);

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (refer to Impact Statement BIO-3);

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (refer to Impact Statement BIO-2); and/or

- Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (refer to Section 8.0, *Effects Found Not To Be Significant*).

CEQA Guidelines Section 15065(a), *Mandatory Findings of Significance*, states that a project may have a significant effect on the environment if it would have "... the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species ..."

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would substantially diminish, or result in the loss of, an important biological resource or those that would obviously conflict with local, State, or Federal resource conservation plans, goals, or regulations. Impacts are sometimes locally adverse but not significant because, although they would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

CEQA Guidelines Section 15380, *Endangered, Rare or Threatened Species*, states that a lead agency can consider a non-listed species to be Rare, Threatened, or Endangered for the purposes of CEQA if the species can be shown to meet the criteria in the definition of Rare, Threatened, or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and

distribution for each special-status species was considered according to the definitions for Rare, Threatened, and Endangered listed in *CEQA Guidelines* Section 15380.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.3.4 IMPACTS AND MITIGATION MEASURES

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES

BIO-1 PROJECT IMPLEMENTATION WOULD NOT HAVE AN ADVERSE EFFECT, EITHER DIRECTLY OR THROUGH HABITAT MODIFICATIONS, ON SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL STATUS.

Impact Analysis:

Plant Species

Although not observed on-site, 48 special-status plant species have been recorded in the CNDDB and CNPS in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles; refer to Table 5.3-1. However, based the Habitat Assessment, the project site does not provide suitable habitat for special-status plant species known to occur in the general vicinity of the project site. All special-status plant species are presumed to be absent. As such, no impact would occur in this regard.

Wildlife Species

Although not observed on-site, 20 special-status wildlife species have been recorded in the CNDDB in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles; refer to Table 5.3-1. Based the Habitat Assessment, the project site has a low potential to provide suitable foraging habitat for northern goshawk (*Accipiter gentilis*), silver-haired bat (*Lasionycteris noctivagans*), long-eared myotis (*Myotis evotis*), and Yuma myotis (*Myotis yumanensis*). All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability, and quality of habitat needed by each species and known distributions. As such, no impact to special-status wildlife species would occur.

The western half of the project site is undeveloped and supports a big sagebrush scrub plant community with scattered pine trees. This plant community found on-site provides marginal nesting/roosting opportunities for northern goshawk, silver-haired bat, long-eared myotis, and Yuma myotis. Although these species forage along riparian corridors, and over streams and rivers, such as Mammoth Creek south of and outside of the project footprint, they could forage over open adjacent habitats similar to the project site.

It was determined that the project site has a low potential to provide suitable edge foraging habitat for these species, but is not a primary foraging area for these species. Although this low potential foraging area for northern goshawk, silver-haired bat, long-eared myotis, and Yuma myotis will be lost with the development of the proposed project, the undeveloped areas south and east of Old Mammoth Road adjacent to Mammoth Creek provide ample edge foraging opportunities for these species, and development of the proposed project will result in minimal impacts that area less than significant. Therefore, no mitigation would be required for the loss of potential foraging habitat.

Special-Status Habitat

One special-status plant community has been recorded in the CNDDB and CNPS in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles; refer to Table 5.3-1. However, based the Habitat Assessment, the special-status plant community is absent from the project site. As such, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

SENSITIVE NATURAL COMMUNITIES

BIO-2 PROJECT IMPLEMENTATION WOULD NOT HAVE AN ADVERSE EFFECT ON RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITIES.

Impact Analysis: The majority of the project site and immediate surrounding areas have converted natural habitats into commercial, residential, transportation, and recreational land uses. The eastern half of the project site consists of the existing Mammoth Creek Park West that is developed and no longer supports native plant communities. However, the undeveloped western half of the project is dominated by a big sagebrush scrub plant community along with scattered pine trees. Based on the Habitat Assessment, there is no riparian habitat on-site. The closest riparian habitat is located along the Mammoth Creek, approximately 240 feet south of the project site. Based on the current design plan, no impacts to Mammoth Creek would occur as a result of development of the proposed project. A less than significant impact would occur in this regard.

Pine trees, primarily Jeffery pine, and lodgepole pine, were noted on-site. The Town's Municipal Code (Section 17.36.140) provides provisions to protect and to regulate the removal of certain trees, based on the important environmental, aesthetic, and health benefits that trees provide to Mammoth Lakes' residents and visitors, and the contribution of such benefits to public health, safety, and welfare. These benefits include, but are not limited to, enhancement of the character and beauty of the community as a "Village in the Trees," protection of property values, provision of wildlife habitat, reduction of soil erosion, noise buffering, wind protection, and visual screening for development. Project implementation could include the removal of trees. If tree removal is proposed, the project would be required to prepare a tree removal and protection plan that is consistent with Section 17.36.140 of the Municipal Code; refer to Mitigation Measure BIO-1. The tree removal and protection plan would be required to depict all trees to be preserved and/or removed on the site. If trees are removed, the ratio

of tree removal to replacement planting would be negotiated with the Community and Economic Development Manager. Replacement trees would be required to be consistent with the species identified in the Town of Mammoth Lakes' Recommended Plan List and be a minimum size of seven gallons. A Registered Professional Forester or arborist may also determine the value of the tree and include additional replacement requirements. It will be the Applicants responsibility to maintain the plantings. Adherence to the Town's Municipal Code (Section 17.36.140) and implementation of Mitigation Measure BIO-1 would reduce impacts in this regard to a less than significant level.

Mitigation Measures:

BIO-1 A detailed tree removal and protection plan shall be submitted to Community and Economic Development Manager by the project Contractor, depicting all trees to be preserved and/or removed on the site. The Contractor shall develop the tree removal and protection plan to avoid impacts to on-site Jeffrey pine and lodgepole pine trees. The project Contractor shall follow the recommended guidelines in the General Plan and Municipal Code, which include the following:

- All site development shall be designed to avoid and preserve significant groups of trees and large trees as determined by the project Biologist and approved by the Community and Economic Development Manager.

- Removal of native trees shall be mitigated at a ratio determined by the Community and Economic Development Manager. If replacement plantings of the removed trees is required, the minimum replacement tree size shall be seven gallons. Further, replacement shall be limited to plantings in areas suitable for tree replacement with species identified in the Town of Mammoth Lakes' Recommended Plant List. Replacement requirements may also be determined based on the valuation of the tree as determined by a Registered Professional Forester or arborist.

- A tree removal and protection plan shall be developed by the project Biologist and submitted to the Community and Economic Development Manager. The landscape plan shall also limit the use of turf over root zones of native trees to avoid or minimize adverse impacts of excessive water to native trees.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

WILDLIFE CORRIDORS

BIO-3 IMPLEMENTATION OF THE PROPOSED PROJECT COULD INTERFERE WITH THE MOVEMENT OF A NATIVE RESIDENT OR MIGRATORY SPECIES.

Impact Analysis: Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas and allows for breeding, and foraging.

The project site is not located within any local or regional designated migratory corridors or linkages. However, Mammoth Creek has the potential to provide west to east wildlife movement opportunities along the riparian corridor associated with the creek from the mountains to the valley floor.

One mammal, the lodgepole chipmunk, and multiple bird species including the stellar jay, brewer's blackbird, common raven, northern flicker, northern mockingbird, Bewick's wren, mountain chickadee, red-breasted nuthatch, mourning dove, American robin, brown-headed blackbird, lesser goldfinch, song sparrow, cliff swallow, and western wood-pewee were observed on-site during the habitat site investigation. The project site provides marginal habitat for a limited number of reptilian species acclimated to human presence and disturbance. However, no reptilian species were detected during the Habitat Assessment. Further, no water features occur on the project site that would support fish or amphibians. As a result, no amphibians are expected to occur and are presumed absent from the project site.

According to the Habitat Assessment, project implementation would not impact Mammoth Creek and is not expected to disrupt or have any adverse effects to potential wildlife movement along Mammoth Creek due to the distance from the project site (approximately 240 feet south of the project site) and lack of disturbance to the Creek. Therefore, impacts involving wildlife movement would be less than significant. However, the plant community found on the western half of the project site provides foraging habitat, nesting/denning sites, and shelter for wildlife including migrant and nesting bird species.

Although nests were not observed during the Habitat Assessment, the proposed construction activities could potentially impact nesting birds within the project site and within the immediate vicinity. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions. Some raptor species can nest as early as December. Nesting birds are protected pursuant to the MBTA, Bald/Golden Eagle Protection Act, and Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513). Implementation of Mitigation Measure BIO-2 would require a pre-construction clearance survey if construction cannot occur outside of the nesting season. The survey would ensure that no birds are nesting on or within 500 feet of the project site. A negative survey would be required by a biologist prior to construction to indicate no impacts to active bird nests. If active nests are found during the pre-construction clearance survey, construction activities would be required to stay outside a buffer determined by the biologist in consultation with CDFW, or construction would need to be delayed until the nest is inactive. During site disturbance activities, a biological monitor would be required to delineate the boundaries of the buffer area and monitor the active nest. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, a monitoring report and written authorization by the CDFW Contractor would be required prior to initiation of construction activities within the buffer area. Therefore, adherence to Mitigation Measure BIO-2 would reduce impacts to a less than significant level.

Mitigation Measures:

BIO-2 Pursuant to the Migratory Bird Treaty Act (MBTA), Bald/Golden Eagle Protection Act, and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513), if the Town of Mammoth Lakes conducts all site disturbance/vegetation removal activities (such as removal of any trees, shrubs, or any other potential nesting habitat) outside the avian

nesting season, December 1 through August 31, no further action is necessary. However, if ground disturbance/vegetation removal cannot occur outside of the nesting season, a pre-construction clearance survey for nesting birds shall be conducted within three days of the start of any ground disturbing activities to ensure that no birds are nesting on or within 500 feet of the project site. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active bird nests would occur during site disturbance activities.

If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside a buffer determined by the biologist in consultation with California Department of Fish and Wildlife (CDFW), or construction shall be delayed until the nest is inactive. The buffer shall also be and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests of non-listed, non-raptors and 500 feet from the nests of listed species or raptors. A biological monitor shall be retained and be present during site disturbance activities in order to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, a monitoring report shall be prepared and submitted to the Applicant for review and approval prior to initiation construction activities within the buffer area. The monitoring report shall summarize the results of the nest monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds. Construction within the designated buffer area shall not proceed until written authorization is received by the Contractor from CDFW.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.3.5 CUMULATIVE IMPACTS

Section 15355 of the *CEQA Guidelines* requires an analysis of cumulative impacts, which are defined as, "two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." As outlined in Table 4-1, *Cumulative Projects List*, and illustrated on Exhibit 4-1, *Cumulative Projects Map*, cumulative projects are located on both development and undeveloped sites.

- **PROJECT IMPLEMENTATION, COMBINED WITH IMPLEMENTATION OF OTHER RELATED CUMULATIVE PROJECTS, WOULD NOT HAVE AN ADVERSE EFFECT, EITHER DIRECTLY OR THROUGH HABITAT MODIFICATIONS, ON SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL STATUS.**

Impact Analysis: Development of cumulative projects could result in direct take of special-status species, construction and post-construction disturbances, and/or special-status habitat conversion. However, as with the proposed project, all future cumulative development would undergo

environmental review on a project-by-project basis, in order to evaluate potential impacts to biological resources and ensure compliance with the established regulatory framework. Cumulative impacts to biological resources within the Town of Mammoth Lakes would be mitigated on a project-by-project basis.

As concluded in Impact Statement BIO-1, no special-status plant or wildlife species were observed on the project site and none were determined to have a potential to occur. Further, no special-status habitat are present on-site. Therefore, project implementation would not result in cumulatively considerable impacts to special-status species or habitat.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

- **PROJECT IMPLEMENTATION, COMBINED WITH IMPLEMENTATION OF OTHER RELATED CUMULATIVE PROJECTS, WOULD NOT HAVE AN ADVERSE EFFECT ON RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITY.**

Impact Analysis: Riparian habitat or other sensitive natural communities could occur on cumulative project sites. Future development could result in impacts to these habitat or natural communities. However, all future cumulative development would undergo environmental review and appropriate mitigation, as necessary, on a project-by-project basis.

As discussed in Impact Statement BIO-2, project implementation would have no impact upon riparian habitat as riparian habitat does not occur on-site. However, the project would involve tree removal. The project and other future projects would be required to comply with the Town's Municipal Code. With adherence to the Municipal Code, Section 17.36.140, and the submittal of a grading/development plan outlining tree projection (Mitigation Measure BIO-1), impacts would be reduced to a less than significant level. Therefore, with compliance with Mitigation Measure BIO-1, project implementation would not result in cumulatively considerable impacts to riparian habitats or other sensitive natural communities.

Mitigation Measures: Refer to Mitigation Measures BIO-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **PROJECT IMPLEMENTATION, COMBINED WITH IMPLEMENTATION OF OTHER RELATED CUMULATIVE PROJECTS, WOULD NOT INTERFERE WITH THE MOVEMENT OF A NATIVE RESIDENT OR MIGRATORY SPECIES.**

Impact Analysis: The cumulative projects sites could be located within a local or regional designated migratory corridors or linkages. Therefore, cumulative projects could disrupt or have an adverse effects to potential wildlife movement. Further, plant communities found on the cumulative project sites could provide foraging habitat, nesting/denning sites, and shelter for wildlife including migrant and nesting bird species. Although the cumulative projects could potentially impact the

movement of a native resident, migratory species, or nesting birds, all future cumulative development would undergo environmental review and appropriate mitigation, as necessary, on a project-by-project basis. Nesting birds are protected pursuant to the MBTA, Bald/Golden Eagle Protection Act, and Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513). Implementation of Mitigation Measure BIO-2 would provide pre-construction clearance for nesting birds or other measures if active nests are found, reducing impacts to a less than significant level.

As concluded in Impact Statement BIO-3, the project would result in less than significant impacts to the migratory corridor along Mammoth Creek. Further, with compliance with MBTA and Mitigation Measure BIO-2, impacts to migratory birds would be reduced to a less than significant level. Thus, project implementation would not result in cumulatively considerable impacts to the movement of native resident, migratory species, or nesting birds.

Mitigation Measures: Refer to Mitigation Measures BIO-2.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.3.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Biological impacts associated with project implementation would be less than significant with incorporation of the recommended mitigation measures. No significant unavoidable impacts to biological resources would occur.

5.4 Cultural Resources

5.4 CULTURAL RESOURCES

The purpose of this section is to identify existing cultural resources (including historic and archeological resources) within and around the project site and to assess the significance of such resources. Mitigation measures are recommended to minimize impacts to cultural resources as a result of project implementation. This section is primarily based upon the *Phase I Cultural Resources Study* (Phase I Cultural Study), and *Phase II Cultural Resources Report* (Phase II Cultural Study), both prepared by Rincon Consultants, Inc. (Rincon), dated September 28, 2016 and December 1, 2016, respectively.

The Phase I and Phase II reports contain sensitive and confidential information concerning Native American site and component locations and are not for general distribution. Archaeological site locations are exempted from the California Public Records Act, as specified in Government Code 6254.10, and from the Freedom of Information Act (Exemption 3), under the legal authority of both the National Historic Preservation Act (PL 102-574, Section 304[a]) and the Archaeological Resources Protection Act (PL 96-95, Section 9[a]). Sections of the reports contain maps and other sensitive information. Should any individuals request to review these reports, they should contact the Town directly for consultation. The covers and table of contents of these reports are included in Appendix 11.3, *Cultural Resource Studies*.

5.4.1 EXISTING SETTING

PREHISTORIC OVERVIEW

Although archaeological research has been ongoing in the Sierra Nevada Mountains for the last 50 years, a clear cultural chronology of the region has yet to be established. According to the Phase I Cultural Study, many distinct chronological phases remain elusive. The most widely accepted chronology for the eastern Sierras focuses on human occupation of the area for the last 7,500 years and is divided into the following units: Early Holocene (pre-7,500 years before present [BP]), the Mid-Holocene (7,500 to 3,150 BP), the Newberry Period (3,150 to 1,350 BP), the Haiwee Phase (1,350 to 650 BP), and the Marana Phase (650 to 100 BP).[1]

Early Holocene (pre-7,500 BP). Early Holocene occupation of the Mammoth Lakes area is not well understood as very little substantive information has been documented for this period. Finds of Early Holocene style projectile points, including Lake Mojave points and large fluted points, are limited. One of the first Paleoindian sites to be recorded in Mono County is the Komodo Site, located near Casa Diablo approximately 20 miles southeast of the project site, and occupied sometime between 11,000 and 8,000 years ago. Archaeological deposits dating to this period have likely eroded, been covered by volcanic and alluvial deposits, or been otherwise obscured.

Mid-Holocene (7,500-3,150 BP). Sites dating to the Mid-Holocene are far more common in the Mammoth Lakes area than from early time periods. Evidence of settlement of the eastern Sierras increases significantly for the time period around 5,000 BP. Sites featuring Little Lake and Pinto series

[1] Before Present (BP) years are a time scale used in archaeology, geology, and other scientific disciplines to specify when events in the past occurred. Because the "present" time changes, standard practice is to use 1950 as the arbitrary benchmark of what is considered "present."

split-stem projectile points are fairly widespread. Obsidian hydration data also indicates that regular quarrying at local obsidian sources, such as Mono Craters, Casa Diablo, and Bodie Hills, and associated tool production activities were underway beginning 5,000 BP.

Newbury Period (3,150-1,350 BP). The early Newbury Period is characterized by small, mobile groups, but by 2,000 BP larger seasonal settlements are evident.

Haiwee Phase (1,350-650 BP). Haiwee Phase sites are characterized by the introduction of bow and arrow technology into the region. This period also saw increased centralization of settlements, sociopolitical complexity, and the intensification of subsistence practices, suggesting greater population densities. A trans-Sierran trade network is indicated by the presence of ceramics and Olivella shell beads.

Marana Phase (650-100 BP). For the Marana Phase, significant changes include the increased use of local riparian environments. This phase also exhibits a widened diet breadth, including the first evidence of the exploitation of freshwater shellfish. Seasonal settlement patterns of earlier periods are still typical, though longer-term residential use of high-elevation areas is also evident.

ETHNOGRAPHIC OVERVIEW

Ethnographic information is data about a particular culture or group gathered specifically from members of that culture or group. Ethnographic information for the Mammoth Lakes area is limited. The project is located within the traditional ethnographic area of the Owens Valley Paiute, who occupied the area just south of Mono Lake to south of Owens Lake. The Owens Valley Paiute shared a territorial border with the Northern Paiute to the north, the Monache to the west, and the Western Shoshone to the south. The Sierran groups were fairly similar in material culture and cultural practices, as indicated by ethnographies. Peoples of the eastern slope of the Sierras used the highlands primarily on a seasonal basis. Territorial boundaries were generally fluid, and one area may have been occupied by multiple groups.

The Owens Valley Paiute and other Sierran groups occupied expedient brush shelters in high elevation temporary camps during warm months of the year. During cooler months, people inhabited more substantial bark structures in larger villages in the lowlands. The primary political unit of the Owens Valley Paiute was a district, comprising one large village or an allied group of smaller villages. These districts controlled territories for hunting, pinyon groves, fishing territories, and seed plots.

Owens Valley Paiute subsistence was heavily focused on the gathering of pinyon pine nuts, acorn, hunting and fishing. Major game animals included jackrabbit, deer, mountain sheep, and antelope. In addition, purposeful irrigation of lowlands with constructed dams and ditches was used to increase the yield of important root and seed plants.

Obsidian was an especially important item, and trade-oriented tool production at local quarries is indicated by the presence of obsidian from the region at sites throughout California. Other important trade items included pinyon pine nuts, salt, baskets, animal skin items, pigments, and Pandora moth larvae.

HISTORIC OVERVIEW

Post-European contact history for the State of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present).

Spanish Period (1769–1822). Spanish exploration of what was then known as Alta (upper) California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the Alta California coast and made limited inland expeditions, but they did not establish permanent settlements. No Europeans are recorded visiting what was to become Mono County during the Spanish Period.

In 1769, Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement at Mission San Diego de Alcalá. This was the first of 21 missions erected by the Spanish between 1769 and 1823. The establishment of the missions marks the first sustained occupation of Alta California by the Spanish. In addition to the missions, four presidios and three pueblos (towns) were established throughout the state. No missions were established in Mono County.

During this period, Spain also deeded ranchos to prominent citizens and soldiers, though very few in comparison to the subsequent Mexican Period. To manage and expand their herds of cattle on these large ranchos, colonists enlisted the labor of the surrounding Native American populations. The missions were responsible for administrating to the local Indians as well as converting the population to Christianity. The influx of European settlers brought the local Native American population in contact with European diseases which they had no immunity against, resulting in catastrophic reduction in native populations throughout the state. Although no missions, land grants, or inland expeditions were located in what would become Mono County, the Paiutes living in the area were indirectly affected by the spread of diseases and Native Americans fleeing from other areas.

Mexican Period (1822–1848). The Mexican Period commenced when news of the success of the Mexican War of Independence (1810-1821) reached California in 1822. This period saw the federalization of mission lands in California with the passage of the Secularization Act of 1833. This Act enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time. No land grants were located in Mono County.

Initial European contact with the Owens Valley Paiute occurred during the Mexican Period. It is thought that the first European contact with the Owens Valley Paiute occurred when English fur trapper Peter Ogden Skene visited Owens Valley in 1830 on his way to the Colorado River. In 1834, Joseph Walker crossed the Sierra Nevada at Walker Pass, continuing up through Owens Valley and into Nevada. Throughout the 1840s and 1850s, U.S. military personnel passed through the region, though settlement of the area did not occur until the American Period.

American Period (1848–Present). The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for ceded territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and

Wyoming, and pay an additional $3.25 million to settle American citizens claims against Mexico. Settlement of southern California continued dramatically in the early American Period. Many ranchos in California were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns.

The discovery of gold in northern California in 1848 led to the California Gold Rush, though the first California gold discovery by people of European descent was in southern California at Placerita Canyon in 1842. In 1850, California was admitted into the United States and by 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to move into the State, particularly after completion of the transcontinental railroad in 1869. Mining camps were established at several locations in Inyo and Mono counties, followed by an influx of ranchers and entrepreneurs looking to provide supplies to miners. The Owens Valley Paiute were slowly forced out of the area until a final removal by the U.S. military to Fort Tejon in the 1860s.

Permanent settlement of the area of Mammoth Lakes began in the late 1870s after the establishment of a mining claim on Red Mountain and other claims that followed. In 1878, these claims were purchased by a group that formed the Mammoth Mining Company and established a headquarters, mill, and small settlement in the area. The Company went bankrupt by 1880, however, and many of the settlers left. In the early 1900s, new settlers moved to the area and established hotels, a sawmill, and stores. The first resort at Mammoth, the Wildasinn Hotel, was founded by Charles Wildasinn and well-known by 1906. The Mammoth Lakes area was opened to automobile traffic in 1920, leading to growth in development and seasonal recreational visits. Several resorts and campgrounds were established in the area. In the 1940s, skiing became a popular attraction for Mammoth, leading to additional development and use that has continued into the present.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM SEARCH

As part of the Phase I Cultural Study, Rincon conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Eastern Information Center (EIC) located at the University of California, Riverside (UCR), on January 29, 2016. The search was conducted to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site. The CHRIS search included a review of the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic U.S. Geological Survey (USGS) 7.5- and 15-minute quadrangle maps.

Previous Studies and Recorded Sites

The EIC records search identified 18 previous studies and 25 previously recorded cultural resources within a 0.5-mile radius of the project site. Two previous studies and one recorded cultural resource were within the project site (studies MN-00091 and MN-00309, and recorded cultural resource CA-MNO-561), which are further discussed below.

On-Site Recorded Cultural Resources. Resource CA-MNO-561 (United States Forest Service [USFS] No. 05-04-52-43) was originally recorded in 1979 by William Taylor as a large prehistoric lithic scatter and a potential temporary camp, and three historical cabins and associated outbuildings. The recorded site boundary encompassed an area approximately 1,315 feet by 2,800 feet and extending on either side of Mammoth Creek and Old Mammoth Road (a portion of which includes part of the project site). A western boundary of the site was not established as it extended onto private land not included in Taylor's survey. In 1981, Weaver et al. updated the site to include three separate lithic scatter sites (P-26-000561/USFS No. 05-04-52-53, P-26-001202/USFS No. 05-04-52-88, and P-26-001203/ USFS No. 05-0452-89). Weaver's site update also discusses a test excavation performed by the USFS, which included three excavation units within the boundaries of the project site.

After the 1981 update, the portion of CA-MNO-561 within the project site was excavated by the Archaeological Research Unit (ARU) at UCR with a series of 21 1x2 meter excavation units (Hall 1983b [Study MN-00091]). The excavation units were primarily located in the eastern portion of the project site, which are currently developed with the existing active park uses on-site. The excavation identified roughly 150,000 artifacts, primarily consisting of obsidian tools and debitage. One USFS excavation unit was placed in the undeveloped western portion of the project site, and apparently did not produce a subsurface deposit. Hall concluded that CA-MNO-561 was characteristic of a repeatedly occupied lithic tool-making camp. Occupation dates based on analysis conducted indicated that the site was intermittently occupied from 3000 to 1230 B.C., occupied fairly consistently from 1230 B.C. to A.D. 760, and sporadically occupied, if occupied at all, after A.D. 760. Hall's report recommended that the site was eligible for listing in the National Register of Historic Places (NRHP).

The site record was updated again in 1993 by Sharynn-Marie Valdez and Nelson Siefkin. Valdez and Siefkin recorded the site as a lithic scatter and noted that the cabins and outbuildings discussed in the original site record and Weaver et al.'s update had been demolished. Valdez and Siefkin recorded the site boundary as one large site, as in the original site record, rather than three separate sites as in the update prepared by Weaver et al. Valdez and Siefkin also report that the densest artifact portion of the site to the west of Old Mammoth Road had been impacted by the development of Mammoth Creek Park West, and that the area to the east of Old Mammoth Road had been impacted by off-road vehicles and trail use.

Jeffrey Burton prepared a report discussing excavations at the site in 1994 (Study MN-00309). Burton's excavation consisted of 24 1x1 meter units and 65 auger holes, and resulted in the recovery of 14,000 artifacts. Burton's excavation was primarily located in the area just south of the project site, but included several excavation units within current Mammoth Creek Park West, and two excavation units in the undeveloped western half of the project site. The excavation units in the undeveloped portion of the project site recovered artifacts to a maximum depth of 90 centimeters. Burton concurred with Hall's 1983 findings that the site was likely a lithic toolmaking camp. Occupation dates identified by Burton were comparable with that of Hall's report.

A portion of site CA-MNO-561 was updated in 2009 by Christopher Duran and M. Trevino. The update was limited to segments of CA-MNO-561 within the jurisdiction of the Inyo National Forest. Duran and Trevino surveyed the portion of the site surrounding the Mammoth Historical Museum. Duran and Trevino updated the record to include the cabin used as the Mammoth Historical Museum, but describe a lithic scatter across multiple acres. The boundary around the museum in Duran and Trevino's sketch map has been mistakenly used as the boundary for the entire site on the master map held at the EIC.

The site was updated a third time by Chambers Group, Inc. in 2011. Chambers Group relocated a portion of the site as recorded by Valdez and Siefkin (1993). Chambers Group described the site as a light diffuse lithic scatter consisting of only a few flakes. However, they state that there are likely more artifacts in the area associated with the site that have been obscured by vegetation and alluvial deposits.

The original site boundary as recorded by Taylor in 1979 contains primary numbers P-26-000721, -001202, -001203, -002682, -002683, and -006013. In addition, site P-26-000906 likely represents an extension of CA-MNO-561. The mapped locations of each of these primary numbers are located outside of the project site.

TRIBAL CONSULTATION

Rincon contacted the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (SLF) on February 4, 2016. The NAHC emailed a response on February 22, 2016 stating that a search of the SLF "failed to indicate the presence of Native American cultural resources in the immediate project area." The NAHC also included a contact list of 12 tribal groups or individuals who may have knowledge of cultural resources within the project site. On February 25, 2016 Rincon prepared and mailed letters to each of these contacts requesting any information they may have regarding Native American cultural resources within the project site.

Misty Benner of the Walker River Paiute Tribe responded via email on March 2, 2016. Ms. Benner stated that the Walker River Paiute Tribe did not have any cultural concerns regarding the proposed project and referred Rincon to the Bishop, Lone Pine, or Bridgeport tribes.

Raymond Andrews of the Bishop Paiute Tribe responded via email on March 10, 2016. Mr. Andrews stated that the Bishop Paiute Tribe had concerns regarding the proposed project and requested discussing those concerns over the phone. On June 9, 2016, Rincon archaeologist Hannah Haas followed up by phone and left a voicemail with Mr. Andrews. Mr. Andrews returned Rincon's call on June 20, 2016 to discuss his concerns regarding the proposed project. Mr. Andrews was concerned that the general project vicinity is highly sensitive for prehistoric archaeological resources and was aware of sites within the vicinity of the project site. Mr. Andrews stated that many studies consist only of surface surveys, and that subsurface archaeological sites may frequently be missed by studies going on in the general Mammoth area. He stated further concerns that surface artifacts would be picked up by passersby. Mr. Andrews recommended that a Native American monitor be present for ground disturbing activities, including any associated with archaeological testing or project construction. He further expressed the wish that any artifacts collected as a result of testing or construction monitoring be curated as near to Mammoth Lakes as possible.

The May 2016, the Town also sent out letters to those tribes that have requested to be on the Town's AB 52 Consultation list, for the purposes of AB 52 consultation for the proposed project. On July 18, 2016 the Town of Mammoth Lakes received a letter from the North Fork Rancheria of Mono Indians of California. Their letter stated their concern over the ground disturbance that could occur in the project area and requested the utilization of a tribal monitor during ground disturbing activities. The letter also acknowledged their discussions with Raymond Andrews of the Bishop Paiute Tribe. As of the date of publication of this public review Draft EIR, no other correspondence has been received. The Town sent a final Consultation Completion letter to the North Fork Rancheria of Mono Indians of California clarifying information provided to the Tribe from the Town as part of the

consultation process (Rincon's tribal consultation performed to-date and any archeological records found near the project site), site visit consultation during Rincon's Phase II excavation, as well as the Town's determination regarding Tribal Cultural Resources.

FIELD RECONNAISSANCE

As part of the Phase I Cultural Study, Rincon conducted a cultural resources survey of the project site on June 3, 2016. The survey consisted of walking parallel transects, oriented north-south and spaced no greater than 10 meters apart. During the survey, the archaeologist examined all areas of exposed ground surface for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools, ceramics), historic debris (e.g., metal, glass, ceramics), or soil discoloration that might indicate the presence of a cultural midden. The project site characteristics and survey conditions were recorded using a field notebook and a digital camera. Copies of the field notes and digital photographs are on file with Rincon's Carlsbad office.

The pedestrian survey of the project site resulted in the relocation of artifacts associated with CA-MNO-561. The eastern portion of the project site is developed with a landscaped lawn, play facilities, restrooms, and parking lot. Ground visibility outside the paved parking lot and park structures in this portion of the project site was fair to good (50 to 80 percent) depending on vegetation cover. This eastern developed half of the project site contained a sparse obsidian flake scatter along the eastern boundary and the bedrock milling feature described in Hall's excavation report. In the area currently occupied by Mammoth Creek Park West and previously excavated by Hall, the survey resulted in the relocation of the bedrock milling feature and a sparse scatter of obsidian flakes.

The western half of the project site is undeveloped, but heavily disturbed by unpaved recreational trails and use of the area. Ground visibility within this half of the project site was poor to fair (15 to 60 percent) due to vegetation and pine duff. The western half of the project site contains a high concentration of obsidian flakes. A site record update on Department of Parks and Recreation (DPR) Series 523 forms was prepared.

Phase II Cultural Study Field Work

Based on the initial findings presented in the Phase I Cultural Study, Rincon conducted further site investigation for the Phase II Cultural Study. The Phase II fieldwork was conducted between August 23 to 26 by a two-person archaeological crew under direction of Principal Investigator Christopher Duran, M.A., RPA. As part of this investigation, 17 shovel test pits (STP) units and one test unit (TU), Unit 1, were evaluated.

Shovel Test Pit Excavation. The initial investigation of CA-MNO-561 included excavation of 17 STPs to determine the presence or absence of buried cultural material and establish the site boundaries. The initial STPs measured 30 centimeters (cm) in diameter, but some STPs were expanded to 50 cm due to the difficulty of digging caused by large amounts of gravel. All STPs were excavated using arbitrary 10-cm levels. All excavated soils were screened through 3 millimeter (mm) (0.125-inch) wire mesh. Any artifacts or ecofacts recovered from the STPs during screening were collected and bagged with pertinent data recorded (e.g., provenience data). Rincon archaeologists completed a form for each STP that recorded all data and observations made during excavation, including the depths of

recovered materials and soil descriptions. Each STP was excavated until encountering sterile soils or due to the difficulty of excavation due to the presence of bedrock. All STPs were backfilled upon completion of the excavation.

Cultural materials recovered during the excavation of STPs included a total 271 artifacts, all of which were obsidian artifacts; refer to Table 5.4-1, *Phase II STP Excavation Summary*.

Table 5.4-1
Phase II STP Excavation Summary

STP No.	Cultural Materials Present	STP Diameter (cm)	Max Depth centimeters below surface (cmbs)	Comments
1	Obsidian flakes	30	90	Excavation stopped due to modern water pipe.
2	Obsidian flakes	30	80	Excavation stopped due to negative soils.
3	Obsidian flakes	30	90	Excavation stopped due to difficulty digging caused by large rocks.
4	Obsidian flakes	30	60	Excavation stopped due to negative soils.
5	Obsidian flakes	50	60	Excavation stopped due to negative soils.
6	Obsidian flakes	50	50	Excavation stopped due to negative soils.
7	Obsidian flakes	50	60	Excavation stopped due to negative soils.
8	None	30	40	Excavation stopped due to negative soils.
9	Obsidian flakes	50	100	Excavation stopped due to negative soils.
10	Obsidian flakes	50	105	Excavation stopped due to negative soils.
11	Obsidian flakes	50	90	Excavation stopped due to negative soils.
12	Obsidian flakes	50	50	Excavation stopped due to difficulty digging caused by boulder.
13	Obsidian flakes	50	60	Excavation stopped due to negative soils.
14	None	50	40	Excavation stopped due to negative soils.
15	Obsidian flakes	50	80	Excavation stopped due to negative soils.
16	None	50	50	Excavation stopped due to negative soils.
17	Obsidian flakes	30	70	Excavation stopped due to negative soils.

Source: Rincon Consultants, Inc., *Phase II Cultural Resources Report*, dated September 28, 2016.

Test Unit Excavation. One 1x1-meter (m) test unit, Unit 1, was placed in an area with the highest density of artifacts identified during the excavation of the STPs. Unit 1 was excavated using arbitrary 10-cm levels from an established datum, with soils screened through 3 mm (0.125-inch) wire mesh. Any artifacts or ecofacts identified in the screen were bagged with pertinent data recorded (e.g., provenience data). A unit level record was completed for each arbitrary 10-cm level that identified all pertinent information including any observed artifacts or features and soil descriptions. A sidewall profile was completed for the north wall of the TU and includes observed stratigraphy, disturbances, and soil descriptions. The test unit was backfilled upon completion.

Soils throughout the unit consisted of sandy loam with varying amounts of gravel and rocks. Cultural materials were present throughout the upper 120 centimeters below datum (cmbd) of the unit, consisting primarily of obsidian lithic artifacts; refer to Table 5.4-2, *Unit 1 Excavation Summary*. A small charcoal fragment was recovered from 30 to 40 cmbd, and small amounts of fire-affected rock (FAR)

were identified from 90 to 120 cmbd. Root disturbances were present throughout the upper 120 cmbd of the unit, with one large tree root cutting across the unit in the 40 to 50 cmbd level. Excavation of Unit 1 yielded a total of 378 obsidian artifacts, two utilized flakes, one fragment of charcoal, and small amounts of FAR (not collected). The artifacts were recovered from between 0 to 120 cmbd. The excavation did not identify any buried subsurface features. A sidewall profile was completed for the south wall of the TU.

Table 5.4-2
Unit 1 Excavation Summary

Level	Soil Type	Cultural Materials Present	Disturbances
1 (10-20 cmbd)	Sandy loam with gravel	Obsidian flakes	Vegetation
2 (20-30 cmbd)	Sandy loam with gravel	Obsidian flakes	Roots
3 (30-40 cmbd)	Sandy loam with gravel	Obsidian flakes, charcoal	Roots
4 (40-50 cmbd)	Sandy loam with gravel	Obsidian flakes	Roots; one large root through unit
5 (50-60 cmbd)	Sandy loam with gravel	Obsidian flakes	Roots
6 (60-80 cmbd)	Sandy loam with gravel	Obsidian flakes	Roots
7 (80-90 cmbd)	Sandy loam with gravel	Obsidian flakes	Roots
8 (90-100 cmbd)	Sandy loam with gravel	Obsidian flakes, FAR	Roots
9 (100-110 cmbd)	Sandy loam with gravel	Obsidian flakes, FAR	Roots
10 (110-120 cmbd)	Sandy loam with gravel	Obsidian flakes, FAR	Roots
11 (120-130 cmbd)	Sandy loam with gravel	None	Roots
12 (130-140 cmbd)	Sandy loam with large amounts of gravel	None	None

Notes: cmbd = centimeters below datum; FAR = fire-affected rock
Source: Rincon Consultants, Inc., *Phase II Cultural Resources Report*, December 1, 2016.

LABORATORY PROCEDURES

At the completion of the fieldwork for the Phase II Cultural Study, all cultural materials were transported to Rincon's office and laboratory in Carlsbad, California. Rincon archaeologists used the following laboratory methods to process and analyze the cultural materials to generate data that could be used to address questions posed in the Research Design and to create a database for future researchers.

Rincon archaeologists cataloged all artifacts, ecofacts, and sample materials recovered from the Phase II site evaluation as individual items or in lots, where appropriate (e.g., debitage of the same material class and stage of reduction from the same provenience). Cataloged items were enumerated

sequentially. All catalog information was stored in a Microsoft Excel spreadsheet. The spreadsheet recorded provenience information (location and depth); date collected; and descriptive information such as artifact class, artifact type, material type, condition, count, and weight.

All cultural materials recovered from the Phase II work were prepared for long-term curation and delivered to the Maturango Museum in Ridgecrest California. The Maturango Museum houses collections from the eastern Sierra Nevada and is geographically the closest repository to the project site. Curation preparation included creating acid-free labels and tags and placing artifacts in archival quality bags and boxes. A hard copy of the report was prepared on acid-free paper and submitted to the selected curation facility along with an electronic copy and the artifacts.

ARTIFACTS ANALYSIS

Overall, the assemblage from CA-MNO-561 suggests a technological emphasis on percussion flake production and the production of bifaces and blades. Percussion flakes may have been produced to use as expedient tools for a variety of tasks. Toolstone used was derived from local sources. The assemblage is insufficient to provide anything but general observations regarding the flaked stone technology employed and produced at CA-MNO-561. Individually, technologically relevant flakes may suggest the application of specific stone working techniques, but the relative frequency of such techniques cannot be determined from the available sample. The flaked stone assemblage, therefore, provides only general interpretations of percussion flake production, formal tool finishing, and the production of blades and bifaces.

The fieldwork recovered a total of 657 artifacts, including 655 obsidian artifacts, one chert flake, and one charcoal fragment. Of the artifacts recovered, 99.6 percent consist of obsidian lithic artifacts. Based on artifacts identified from CA-MNO-561, the site represents an obsidian lithic processing site, ubiquitous throughout the Eastern Sierras.

5.4.2 REGULATORY SETTING

Numerous laws and regulations require Federal, State, and local agencies to consider the effects a project may have on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (i.e., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended, the California Environmental Quality Act (CEQA), and the California Register of Historical Resources, Public Resources Code 5024, are the primary Federal and State laws governing and affecting preservation of cultural resources of national, State, regional, and local significance. The applicable regulations are discussed below.

FEDERAL

National Historic Preservation Act of 1966

Enacted in 1966 and amended in 2000, the NHPA declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the

achievement of preservation goals at the Federal, State, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO) and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes to preserve their cultural heritage and created the Advisory Council on Historic Preservation (ACHP).

SECTION 106 PROCESS

Through regulations associated with the NHPA, an impact to a cultural resource would be considered significant if government action would affect a resource listed in or eligible for listing in the NRHP. The NHPA codifies a list of cultural resources found to be significant within the context of national history, as determined by a technical process of evaluation. Resources that have not yet been placed on the NRHP, and are yet to be evaluated, are afforded protection under the Act until shown to be not significant.

Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations Part 800) note that for a cultural resource to be determined eligible for listing in the NRHP, the resource must meet specific criteria associated with historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP are applied within an analysis when there is some question as to the significance of a cultural resource. The criteria for evaluation are defined as the quality of significance in American history, architecture, archeology, engineering, and culture. This quality must be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- *Criterion A:* It is associated with events that have made a significant contribution to the broad patterns of our history; or

- *Criterion B:* It is associated with the lives of persons significant in our past; or

- *Criterion C:* It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- *Criterion D:* It has yielded, or may be likely to yield, information important in prehistory or history.

Criterion (D) is usually reserved for archaeological resources. Eligible cultural resources must meet at least one of the above criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

The Section 106 evaluation process does not apply to projects undertaken under Town environmental compliance jurisdiction. However, should the undertaking require funding, permits, or other administrative actions issued or overseen by a federal agency, analysis of potential impacts to cultural resources following the Section 106 process would likely be necessary. The Section 106 process

typically excludes cultural resources created less than 50 years ago unless the resource is considered highly significant from the local perspective. Finally, the Section 106 process allows local concerns to be voiced and the Section 106 process must consider aspects of local significance before a significance judgment is rendered.

Secretary of the Interior's Standards for the Treatment of Historic Properties

Evolving from the *Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards* that were developed in 1976, the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* were published in 1995 and codified as 36 CFR 67. Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources." "Preservation" acknowledges a resource as a document of its history over time, and emphasizes stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation" not only incorporates the retention of features that convey historic character, but also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

STATE LEVEL

California Environmental Quality Act

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources, or any object building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource is considered historically significant if it meets any of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) Is associated with the lives of persons important in our past;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4) Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (Public Resources Code Section 21083.2[a], [b], and [c]). Public Resources Code Section 21083.2(g) defines a unique archaeological resource as an

archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;

2) Has a special and particular quality such as being the oldest of its type or the best available example of its type; or

3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the criteria modeled on the NRHP criteria.

Assembly Bill 52 (Gatto, 2014)

On September 25, 2014 Governor Brown signed Assembly Bill 52 (AB 52). In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and respecting the interests and roles of project proponents, it is the intent AB 52 to accomplish all of the following:

(1) Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.

(2) Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.

(3) Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.

(4) Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are

traditionally and culturally affiliated. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.

(5) In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision making body of the lead agency.

(6) Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.

(7) Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.

(8) Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.

(9) Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.

LOCAL LEVEL

Town of Mammoth Lakes General Plan

Town policies pertaining to cultural resources are contained in the Arts, Culture, Heritage, and Natural History Element of the General Plan. The Arts, Culture, Heritage, and Natural History Element describes methods for protecting archaeological and historical resources, and provides local policies to guide the implementation of cultural resource preservation, beyond the protections afforded by applicable Federal, State, and local laws. These policies include, but are not limited to, the following:

- *A.3. Goal:* Encourage public art and cultural expression throughout the community.
- *A.3.D. Policy:* Be stewards of the cultural, historical, and archeological resources in and adjacent to town.
- *A.3.E. Policy:* Allow the adaptive use of historic buildings.
- *A.3.E.1. Action:* Develop and maintain a cultural resources database of historic and archaeological resources within the Planning Area.

5.4.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

The purpose of this analysis is to identify any potential cultural resources within or adjacent to the project site, and to assist the Lead Agency in determining whether such resources meet the official definitions of "historical resources," as provided in the Public Resource Code, in particular CEQA.

SIGNIFICANCE GUIDELINES

Historical Resources

Impacts to a significant cultural resource that affect characteristics that would qualify it for the NRHP or that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (*CEQA Guidelines*, Section 15064.5 [b][1], 2000). Material impairment is defined as demolition or alteration "in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register" (*CEQA Guidelines* Section 15064.5[b][2][A]).

Archaeological Resources

A significant prehistoric archaeological impact would occur if grading and construction activities result in a substantial adverse change to archaeological resources determined to be "unique" or "historic." "Unique" resources are defined in Public Resources Code Section 21083.2; "historic" resources are defined in Public Resources Code Section 21084.1 and *CEQA Guidelines* Section 15126.4.

Public Resources Code Section 21083.2(g) states:

> *As used in this section, "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:*
>
> 1. *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;*
> 2. *Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or*
> 3. *Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

Tribal Cultural Resources

AB 52 established a new category of resources in CEQA called Tribal Cultural Resources. (Public Resources Code Section 21074.) "Tribal cultural resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also created a process for consultation with California Native American Tribes in the CEQA process. Tribal Governments can request consultation with a lead agency and give input into potential impacts to tribal cultural resources before the agency decides what kind of environmental assessment is appropriate for a proposed project. The Public Resources Code now requires avoiding damage to tribal cultural resources, if feasible. If not, lead agencies must mitigate impacts to Tribal Cultural Resources to the extent feasible.

CEQA SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form, which includes questions relating to cultural resources. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5 (refer to Impact Statement CUL-1);
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5 (refer to Impact Statement CUL-1);
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (refer to Section 8.0, *Effects Found Not To Be Significant*); and/or
- Disturb any human remains, including those interred outside of formal cemeteries (refer to Impact Statement CUL-3).

On August 8, 2016, the California Natural Resources Agency certified an update Appendix G of the CEQA Guidelines related to tribal cultural resources. Specifically, these amendments implement the Legislature's directive in Public Resources Code Section 21083.09 (enacted as part of AB 52 [Chapter 532, Statutes 2014]). The following threshold has been edited from the previous version:

- Disturb any human remains, including those interred outside of ~~formal~~dedicated cemeteries (refer to Impact Statement CUL-3).

The August 8, 2016 amendments also added a new CEQA topic area, Tribal Cultural Resources. Accordingly, these amendments state that a project may cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k) (refer to Impact Statement CUL-2); or

- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe (refer to Impact Statement CUL-2).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." If a potentially significant impact cannot be reduced to a less than significant level through the application of goals, policies, standards, or mitigation, it is categorized as a significant and unavoidable impact. The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

5.4.4 IMPACTS AND MITIGATION MEASURES

HISTORICAL/ARCHAEOLOGICAL RESOURCES

CUL-1 THE PROPOSED PROJECT COULD CAUSE A SIGNIFICANT IMPACT TO A HISTORICAL AND/OR ARCHAEOLOGICAL RESOURCE ON-SITE.

Impact Analysis: Mammoth Lakes has had a long cultural history and has been home to Native American groups, since before Euro-American settlement. The most widely accepted chronology for the eastern Sierras focuses on human occupation of the area for the last 7,500 years and is divided into five units: Early Holocene (pre-7,500 years BP), the Mid-Holocene (7,500 to 3,150 BP), the Newberry Period (3,150 to 1,350 BP), the Haiwee Phase (1,350 to 650 BP), and the Marana Phase (650 to 100 BP). Post-European contact history for the State of California is generally divided into three periods:

the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Permanent settlement of the area of Mammoth Lakes began in the late 1870s after the establishment of a mining claim on Red Mountain and other claims that followed. Transportation uses were present in the 1920s, which led to the growth in development and seasonal recreational activities. In the 1940s, skiing became a popular attraction for Mammoth, leading to additional development and use that has continued into the present.

Historical Resources

A historical resources is a resource listed in, or determined to be eligible for listing, in the CRHR, a resource included in a local register of historical resources, or any object building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]). Section 15064.5(a)(3) also states that a resource must be considered by the lead agency to be "historically significant" if the resource:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2) Is associated with the lives of persons important in our past;

3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4) Has yielded, or may be likely to yield, information important in prehistory or history.

One previously recorded prehistoric archaeological site (CA-MNO-561) was identified within the project site as a result of the cultural resources records search and pedestrian survey. The portion of CA-MNO-561 to the south of the parking lot within the project site has been previously excavated and the site has been recommended eligible for listing in the CRHR. The western half of the project site has seen very limited previous excavation. The extensive subsurface deposit identified by previous excavations and the surface artifacts identified during the current survey leads to the conclusion that subsurface deposits are likely present within the project site. Thus, Rincon recommended a Phase II excavation of the portions of CA-MNO-561 that have not been previously excavated to identify its boundaries within the project site and determine if that portion provides contributing elements to the CRHR eligibility of CA-MNO-561 as a whole. The documentation, controlled excavation, and results of the special studies provided data that can be used to answer research questions regarding the prehistory of the region. The following research questions were established in the Phase II Work Plan prepared prior to excavation and were considered to aid this eligibility determination:

- Does CA-MNO-561 retain additional intact subsurface deposits? Can discrete features or temporal episodes be identified in the vertical and/or horizontal layout of the site?

- Do intact subsurface deposits at CA-MNO-561 extend into the western portion of the site, thereby enlarging the site area?

- Is CA-MNO-561 eligible for listing on the CRHR? And under what criteria(on)?

- Does CA-MNO-561 contribute to the overall regional knowledge of prehistoric occupation in the area?

- Has the data potential of CA-MNO-561 been exhausted by site recording and testing?

- Does CA-MNO-561 have the potential to yield additional data important to our understanding of prehistory?

Fieldwork conducted as part of the Phase II Cultural Study recovered a total of 657 artifacts, including 655 obsidian artifacts, one chert flake, and one charcoal fragment. Of the artifacts recovered, 99.6 percent of those artifacts consist of obsidian lithic artifacts. Based on the artifacts identified from CA-MNO-561, the site represents an obsidian lithic processing site, ubiquitous throughout the Eastern Sierras.

Based on the results of the current Phase II Cultural Study, the portion of the site CA-MNO-561 within the project site appears to have been previously disturbed, but retains some intact deposits. These deposits have provided some pertinent information pertaining to eligibility. Although intact deposits of site CA-MNO-561 remain within the project site, the deposits are unlikely to provide any additional pertinent data to the research beyond what has been collected as part of the Phase II Cultural Study.

The portion of CA-MNO-561 under investigation for the project represents a single activity site. No features (i.e., burials or cultural middens) were identified as part of the current excavation of CA-MNO-561 and the recovered materials from the Phase II Cultural Study primarily consist of smaller, non-diagnostic lithic artifacts (e.g., debitage). Rincon's Phase II Cultural Study for CA-MNO-561 included an extensive program of shovel test pits and a test unit, which have defined the limits of the deposit within the project site.

Based on the findings of the Phase II Cultural Study, Rincon concluded that the data potential of the portion of CA-MNO-561 within the project site has been exhausted. Any future work (i.e., data recovery) would only serve to produce redundant data. Additional constituents (i.e., artifacts) may remain within the project site, but the collected data thus far provide sufficient data to answer whether or not CA-MNO-561 is considered a historic resource. Any deposits that remain within the project site are unlikely to contribute additional pertinent data. Additionally, those portions of CA-MNO-561 located outside of the project site, these areas would not be impacted by the proposed project. The portion of CA-MNO-561 within the boundaries of the project site does not contribute to the CRHR eligibility of the resource as a whole. Therefore, impacts to CA-MNO-561 as a result of the proposed project are less than significant, as any such impacts would not affect the CRHR eligibility of the resource as a whole.

Although the data potential for the site has been exhausted by the Phase II investigation, the possibility for intact features (e.g., hearths, burials) within the project site remains. Intact features may contribute to the CRHR eligibility of site CA-MNO-561 and provide new data. Archaeological and Native American monitoring would be required to be conducted for all project-related ground disturbing activities (Mitigation Measure CUL-1). Archaeological monitoring would be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for prehistoric archaeology. If intact features are encountered during ground-disturbing

activities, work in the immediate area would halt and the find would be evaluated for significance under CEQA and the NHPA. Work would not be halted for resources that have already been extensively recorded within the site boundary. The qualified archaeologist may reduce or stop monitoring dependent upon observed conditions. Work would not be halted or redirected for known site constituents (i.e., flakes or stone tools) that were evaluated as part of the Phase II Cultural Study. With implementation of the recommended Mitigation Measure CUL-1, potential impacts to historical and archeological resources would be reduced to less than significant levels.

Mitigation Measures:

CUL-1 Archaeological and Native American monitoring shall be conducted for all project-related ground disturbing activities by a qualified archaeologist and Native American monitor appointed by the Public Works Director. Archaeological monitoring shall be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for prehistoric archaeology. If intact features (e.g., hearths, other intact features, burials) are encountered during ground-disturbing activities, work in the immediate area shall halt, the monitors shall immediately notify the Public Works Director, and the find shall be evaluated for significance under the California Environmental Quality Act and National Historic Preservation Act (NHPA). Consultation with the Native American Monitor, the Native American Heritage Commission, and data/artifact recovery, if deemed appropriate, shall be conducted. Under the discretion of the monitors, work shall not be halted for resources that have already been extensively recorded within the site boundary. The monitors may reduce or stop monitoring dependent upon observed conditions. Work shall not be halted or redirected for known site constituents (i.e., flakes or stone tools) that were evaluated as part of the *Phase II Cultural Resources Report*, prepared by Rincon Consultants, Inc., dated September 28, 2016.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

TRIBAL CULTURAL RESOURCES

CUL-2 THE PROPOSED PROJECT COULD CAUSE A SIGNIFICANT IMPACT TO A TRIBAL CULTURAL RESOURCE ON-SITE.

Impact Analysis: Per Section Public Resources Code Section 21074, tribal cultural resources are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also created a process for consultation with California Native American Tribes in the CEQA process. Tribal Governments can request consultation with a lead agency and give input into potential impacts to tribal cultural resources before the agency decides what kind of environmental assessment is appropriate for a proposed project. The Public Resources Code now requires avoiding damage to tribal cultural resources, if feasible. If not, lead agencies must mitigate impacts to Tribal Cultural Resources to the extent feasible.

Tribal Consultation

The Town requested Tribal consultation for the purposes of AB 52 on May 31, 2016. One Tribe, the North Fork Rancheria of Mono Indians of California (North Fork Rancheria), sent a response letter, dated July 18, 2016. This letter identified that the project site is sensitive, as Tribes lived along the trails and settled in areas with resources that provided for their needs. The North Fork Rancheria expressed concerns regarding ground disturbance that would occur as a result of the project. The North Fork Rancheria requested that a tribal monitor be present during ground disturbing phases for the project. A record of consultation that has occurred with the Tribes in the area, archaeological records near the project area, and perhaps a field visit to the proposed site with tribal representatives.

The North Fork Rancheria Tribe's letter indicated that they had reached out and consulted with Bishop Piute Tribe. Subsequent to the letter, a representative of the Bishop Piute Tribe was involved with observing the Phase II excavation and study. As the Phase II study was completed and the Town sent a final Consultation Completion letter to the North Fork Rancheria Tribe documenting the information provided to the Tribe from the Town as part of the consultation process (Rincon's tribal consultation performed to-date and any archeological records found near the project site), site visit consultation during Rincon's Phase II excavation, as well as the Town's determination regarding Tribal Cultural Resources.

Tribal Cultural Resource Determination

Based on Rincon's Phase II excavation and consultation conducted with North Fork Rancheria, the Town has determined that no Tribal Cultural Resources are known to exist on the project site. As discussed in Impact Statement CUL-1, Resource CA-MNO-561 is a cultural resource of Native American origin. However, the project site is not included or determined to be eligible for inclusion in the California Register of Historical Resources, nor is the project included in a local register of historical resources as defined in subdivision (k) of Section 5020.1. No evidence to support the presence of known Tribal Cultural Resources was determined to be located on-site. However, there is the potential for unknown resources to be discovered on-site during site disturbance activities. Thus, Native American monitoring would be required to be conducted for all project-related ground disturbing activities (Mitigation Measure CUL-1). With implementation of the recommended Mitigation Measure CUL-1, potential impacts to unknown Tribal Cultural Resources would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure CUL-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

BURIAL SITES

CUL-3 THE PROPOSED PROJECT MAY CAUSE A SIGNIFICANT IMPACT TO UNKNOWN NATIVE AMERICAN BURIAL SITES THAT COULD OCCUR ON-SITE.

Impact Analysis: Although no conditions exist that suggest human remains are likely to be found on the project site, development of the project site could result in the discovery of human remains and potential impacts to these resources. If human remains are found, those remains would be required to conduct proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Sections 7050.5 to 7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the NAHC and consultation with the individual identified by the NAHC to be the "most likely descendant (MLD)." The MLD would be required to complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with existing State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be reduced to less than significant levels.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.4.5 CUMULATIVE IMPACTS

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, WOULD NOT CAUSE A SIGNIFICANT IMPACT TO A HISTORICAL AND/OR ARCHAEOLOGICAL RESOURCE.**

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD CAUSE A SIGNIFICANT IMPACT TO A TRIBAL CULTURAL RESOURCE ON-SITE.**

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, MAY CAUSE A SIGNIFICANT IMPACT TO UNKNOWN NATIVE AMERICAN BURIAL SITES THAT COULD OCCUR ON-SITE.**

Impact Analysis: Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. Due to the location of the cumulative projects and the high sensitivity for cultural resources to occur within the Town, there is the potential that historical, archeological, and tribal cultural resources, including burial sites, could occur at one or more of the cumulative project sites. The potential destruction of these cultural resources associated with ground disturbance activities at the project site and cumulative project sites could be cumulatively considerable, due to the collective loss of historical artifacts and knowledge regarding the culture of the people who lived at the respective sites. However, individual projects would be evaluated on a project-by-project basis to determine the extent of potential impacts to historical, archeological, and/or tribal cultural resources. Adherence to State and Federal statutes, as well as project-specific mitigation measures, cumulative impacts to historical/archaeological would be reduced to less than significant levels. Further, compliance with Section 5097.98 of the California Public Resources Code would ensure cumulative impacts to burial sites are reduced to less than significant levels.

As discussed in Impact Statement CUL-1, the portion of CA-MNO-561 within the boundaries of the project site does not contribute to the CRHR eligibility of the resource as a whole. Further, the Town determined that there are no known Tribal Cultural Resources present on-site. With compliance with the recommended Mitigation Measure CUL-1, the project would result in less than significant impacts to historical, archeological, and tribal cultural resources. Thus, with compliance with Mitigation Measure CUL-1 and Section 5097.98 of the California Public Resources Code, the project would not result in substantial cumulatively considerable impacts pertaining to cultural or tribal resources or burial sites.

Mitigation Measures: Refer to Mitigation Measure CUL-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.4.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No unavoidable significant impacts related to cultural resources have been identified following implementation of mitigation measures referenced in this section.

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5.5 Traffic and Circulation

5.5 TRAFFIC AND CIRCULATION

This section is based upon the *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis* (Traffic Impact Analysis), dated July 29, 2016, prepared by LSC Transportation Consultants, Inc.; refer to Appendix 11.4, *Traffic Impact Analysis*. The purpose of the Traffic Impact Analysis is to evaluate development of the proposed project from a traffic and circulation standpoint. Mitigation measures are recommended, if necessary, to avoid or reduce project impacts on traffic and circulation.

The Traffic Impact Analysis analyzes existing and future weekday daily peak hour traffic conditions for the following conditions:

- Existing conditions;
- Existing with project conditions;
- Future without project conditions; and
- Future with project conditions.

5.5.1 EXISTING SETTING

STUDY AREA

Study Intersections

Exhibit 5.5-1, *Location and Intersection Configuration of Study Intersections*, presents the site location, lane configuration, and intersection control devices for the following three study intersections located in the vicinity.

- Old Mammoth Road/Meridian Boulevard;
- Old Mammoth Road/Chateau Road; and
- Old Mammoth Road/Mammoth Creek Park West Site Access.

ANALYSIS METHODOLOGY

Year 2015 turning movement volumes were developed as part of the recent Mammoth Lakes Mobility Element EIR for all study intersections except the Mammoth Creek Park West Site Access along Old Mammoth Road. These volumes were increased by a one percent average annual growth rate, based on California Department of Transportation (Caltrans) traffic volumes in the Town of Mammoth Lakes, to estimate existing year "no project" traffic volumes. Even though the existing park is closed in the winter, eight existing vehicle trips are estimated to be generated (with four entering and four exiting the site) in the existing winter p.m. peak hour. Considering that a minimal amount of traffic uses the plowed parking lot and playground (in low snow years) or the park for snow play.

The Town of Mammoth Lakes Travel Demand Model was recently updated as part of the Mammoth Mobility Element EIR. During this process several model alternatives were developed. Town staff have directed that the "future model with new floor area ratio (FAR) and with the new Mobility Element" version should be used for purposes of this analysis.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Location and Intersection Configuration of Study Intersections

Exhibit 5.5-1

The Mammoth Creek Park West site is in the Mammoth Lakes Travel Model as Traffic Analysis Zone (TAZ) 140. The existing model land uses in TAZ 140 are 12 acres of Public Utilities, which remains the same in the future model. In other words, the model estimates no additional land uses would be constructed in this area. Therefore, the proposed project would be above and beyond the future model's estimation.

Future turning movement volumes were pulled from the Mammoth Lakes Travel Model for all study intersections with the exception of the site access driveway, as this intersection is not represented in the model. Future volumes entering and exiting the proposed site would remain unchanged in the future without project scenario.

The following potential areas of transportation impacts are considered in the Traffic Impact Analysis including intersection level of service, the need for turn lanes, signals, or roundabouts, and vehicle miles traveled, refer to Appendix 11.4.

LEVEL OF SERVICE METHODOLOGY AND PERFORMANCE CRITERIA

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the type of traffic control and delay experienced at the intersection. Intersection LOS was evaluated using Synchro software (Version 8.0, Trafficware 2013) based on the 2010 HCM methodologies at all study intersections. All LOS calculations are presented in Appendix A of Appendix 11.4. The 2010 Highway Capacity Manual (HCM) analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions); refer to Table 5.5-1, *LOS and Delay Ranges*. Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of LOS. These levels recognize that, while an absolute limit exists regarding the amount of traffic traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorates as traffic approaches the absolute capacity. Under such conditions, congestion is experienced. There is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stalls) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic would exceed the ability of the intersection to accommodate it. An upstream queue would then form and continue to expand in length until the demand volume again declines.

The General Plan presents the following LOS thresholds:

- *For Signalized Intersections:* Total intersection LOS D or better must be maintained. Therefore, if a signalized intersection is found to operate at a total intersection LOS E or F, mitigation is required. It is assumed that this same threshold applies to roundabouts.

Table 5.5-1
LOS and Delay Ranges

Level of Service	Description	Signalized Intersections	Unsignalized Intersections
		Delay (seconds)	Delay (seconds)
A	LOS A represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.	≤ 10.0	≤ 10.0
B	LOS B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.	> 10.0 and ≤ 20.0	> 10.0 and ≤ 15.0
C	LOS C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.	> 20.0 and ≤ 35.0	> 15.0 and ≤ 25.0
D	LOS D represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.	> 35.0 and ≤ 55.0	> 25.0 and ≤ 35.0
E	LOS E represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.	> 55.0 and ≤ 80.0	> 35.0 and ≤ 50.0
F	LOS F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. LOS F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes the queue to form, and LOS F is an appropriate designation for such points.	> 80.0	> 50.0

Source: Town of Mammoth Lakes, *Final Program Environmental Impact Report for the Town of Mammoth Lakes 2005 General Plan Update*, dated May 2007 and LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

- *For Unsignalized Intersections:* In order to avoid the identification of a LOS failure for intersections that result in only a few vehicles experiencing a delay greater than 50 seconds (such as at a driveway serving a few homes that accesses onto a busy street), a LOS deficiency is not identified for all intersections with approach LOS E or F. Instead, a LOS deficiency is assumed to occur at an unsignalized intersection only if an individual minor street movement operates at LOS E or F and total minor approach delay exceeds four vehicle hours for a single lane approach and five vehicle hours for a multi-lane approach. A deficiency is found to occur if the average number of vehicles queued over the peak-hour exceeds four at a single-lane approach, or exceeds five at a multi-lane approach.

EXISTING (WINTER) CONDITIONS

Intersection Levels of Service

Table 5.5-2, *Existing Peak Hour Intersection Levels of Service*, summarizes the existing peak hour LOS for the study intersections.

Table 5.5-2
Existing Peak Hour Intersection Levels of Service

Study Intersection		Traffic Control[1]	Delay (sec/veh)	LOS
1	Old Mammoth Road/Meridian Boulevard	Traffic Signal	30.6	C
2	Old Mammoth Road/Chateau Road	Stop-Control	20.1	C
3	Old Mammoth Road/Site Access Road	Stop-Control	11.6	B

LOS = level of service; sec = seconds; veh = vehicles.

Notes:
1. LOS is reported as total intersection delay for signalized intersection and worst movement/approach for unsignalized intersections and roundabouts.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

As indicated in Table 5.5-2, all study intersections are currently operating at an acceptable LOS (LOS D or better) during the peak hours based on the Town's LOS standards.

EXISTING TRANSIT SERVICE

The project area is primarily served by bus transit lines operated by Eastern Sierra Transit Authority (ESTA) and the Town's intra-city shuttle/trolley service. The ESTA operates both regional and local bus lines that serve the Town, including inter-city service along Highway 395 and the Town's intra-city shuttle/trolley service. Other key transit providers in the area are the Mammoth Mountain Ski Area (MMSA), who contracts with ESTA to provide access between the Town and their ski area portals, and the Yosemite Area Regional Transportation System (YARTS), which provides summer shuttle service between the Town and Yosemite National Park.

The Town's fixed route service is fare-free. The routes that provide service to the project area have a stop along Old Mammoth Road, at Chateau Road, north of the project site. Routes serving the project area include the Gray Line and the Town Trolley.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

The project site is currently occupied by Mammoth Creek Park West and includes trail connections and biking via the Town Loop trail to the east and south of the project site.[1] According to Map 2-2, *Existing Summer Recreation Nodes and Facilities (UGB & Beyond)*, of the *Town of Mammoth Lakes Trail System Master Plan* (Trail System Master Plan), adopted October 19, 2011, existing Class I Paved Multi-Use Paths are located along Old Mammoth Road and Mammoth Creek Road, adjacent to the project site. A multi-use path provides for bicycle and pedestrian travel on a paved right-of-way completely separated from any street or highway.

5.5.2 REGULATORY SETTING

STATE LEVEL

California Department of Transportation

Caltrans publishes a document entitled *Guide for the Preparation of Traffic Impact Studies* (Guide), which provides guidelines and recommended elements of traffic studies for projects that could potentially impact state facilities such as State Route highways and freeway facilities. This is a State-level document that is used by each of the Caltrans District offices.

The Guide defines when traffic studies should be conducted to address impacts to state facilities, but does not define quantitative impact standards. The Guide states that Measures of Effectiveness (MOEs) are used to evaluate Caltrans facilities, and that the agency strives to maintain a LOS value of C on its facilities. However, the Guide states that the appropriate target LOS varies by facility and congestion level, and is defined differently by Caltrans depending on the analyzed facility.

LOCAL LEVEL

Town of Mammoth Lakes General Plan

The Mobility Element of the General Plan describes how the Town achieves a progressive and integrated multi-modal transportation system that serves the various needs of residents, employees, and visitors. The Element focuses on the Town being connected, accessible, uncongested, and safe with emphasis on feet first, public transportation second, and car last, and identifies measures to improve mobility throughout.

[1] Mammoth Lakes Trail System, *Mammoth Creek Park,* http://www.mammothtrails.org/destination/17/mammoth-creek-park/, accessed August 10, 2016.

Mobility Element policies that pertain to the proposed project include, but are not limited to, the following:

- Maintain and expand access to recreation areas via coordinated system of shuttle and bus services, scenic routes, trails and highways (Policy M.2.A).

- Maintain a Level of Service D or better on the Peak Design Day at intersections along arterial and collector roads (Policy M.3.A).

- Reduce automobile trips by promoting and facilitating:

  - Walking;
  - Bicycling;
  - Local and regional transit;
  - Innovative parking management;
  - Gondolas and trams;
  - Employer-based trip reduction programs;
  - Alternate work schedules;
  - Telecommuting;
  - Ride-share programs; and
  - Cross-country skiing and snowshoeing (Policy M.3.B).

- Reduce automobile trips by promoting land use and transportation strategies such as: implementation of compact pedestrian oriented development; clustered and infill development; mixed uses and neighborhood serving commercial mixed use centers (Policy M.3.C).

- Require development to implement Transportation Demand Management (TDM) measures (Policy M.3.E).

- Construction activities shall be planned, scheduled and conducted to minimize the severity and duration of traffic impediments (Policy M.3.G).

- Improve safety of sidewalks, trails and streets (Policy M.4.A).

- Provide a high quality pedestrian system linked throughout the community with year-round access (Policy M.4.B).

- Design streets, sidewalks and trails to ensure public safety such as:

  - Adequate dimensions and separation;
  - Glare-free lighting at intersections;
  - Directional and informational signage;
  - Trash receptacles;
  - Benches;

  - Shuttle shelters;
  - Protected roadway crossings;
  - Landscaping;
  - Groomed community trails; and
  - Snow removed from sidewalks (Policy M.4.C).

- Provide safe travel for pedestrians to schools and parks (Policy M.4.D).

- Development shall improve existing conditions to meet Town standards (Policy M.4.E).

- Encourage transit use by requiring development and facility improvements to incorporate features such as shelters, safe routes to transit stops, and year-round access (Policy M.5.B).

- Develop efficient and flexible parking strategies to reduce the amount of land devoted to parking (Policy M.6.A).

- Support development of strategically located public parking facilities (Policy M.6.B).

- Require all development to construct improvements and/or pay traffic impact fees to adequately mitigate identified impacts. Mitigation of significant project-related impacts may require improvements beyond those addressed by the current Capital Improvement Program and Town of Mammoth Lakes Air Quality Management Plan and Particulate Emissions Regulations (Policy M.7.E).

The Parks, Open Space, and Recreation Element of the General Plan outlines goals and policies which emphasize a wide variety of outdoor winter and summer activities.

Parks, Open Space, and Recreation Element policies that pertain to the proposed project include, but are not limited to, the following:

- Continue to maintain and upgrade existing parks and recreation facilities, and develop a plan to retrofit existing parks and design all new facilities to ADA standards, to provide for accessibility and enjoyment by physically impaired citizens (Policy P.1.B).

- Upgrade parks and recreation facilities to promote resource efficiency and cost effective maintenance practices (Policy P.1.C).

- Increase understanding and appreciation of the cultural, natural and historical resources of the region and town through development of programs, facilities and interpretive signage (Policy P.2.D).

- Promote Mammoth Lakes' quality of life with parkland and recreation facility acquisition and development at or above the level of service standards recommended in the Parks and Recreation Master Plan (Policy P.2.F).

- Provide parks and recreation facilities in a timely manner with existing and planned development (Policy P.2.G).

- Design and build parks and recreation facilities to ensure compatibility with the surrounding neighborhood and natural environment (Policy P.2.J).

- Assure that new parks and recreation facilities comply with ADA standards and, for safe use and enjoyment by physically impaired citizens (Policy P.2.K).

- Develop parks and recreation facilities to facilitate efficient and cost-effective maintenance practices, and to conserve water, energy, and other resources (Policy P.2.L).

- Ensure public routes for access to public lands are provided in all developments adjacent to National Forest lands (Policy P.3.A).

- Support the construction of trails to provide public access from Town to public lands (Policy P.3.D).

- Provide an affordable and wide range of year-round recreational opportunities to foster a healthy community for residents and visitors. Activities include but are not limited to:[2] (Policy P.4.B).

- Acquire, construct, or upgrade indoor recreation facilities to accommodate desired indoor recreation activities and leisure programs (Policy P.4.G).

- Provide recreation facilities, programs, and classes that are available to all citizens, including people of all ages, abilities, ethnic background, and income levels. Keep programs affordable, and develop program packages for those with more moderate incomes (including seasonal workers) (Policy P.4.H).

- Provide parks and recreation facilities that are accessible by a variety of mobility linkages:

    i. Public pedestrian access to private development projects.
    ii. Transit stops within private development projects (private or public roads).
    iii. Public opportunities for parking to access public lands (including ADA parking) (Policy P.4.I).

- Create open space corridors by combining open space on neighboring properties (Policy P.5.A).

- Design and construct trails as components of a regional and local network for recreation and commuting (Policy P.5.B).

- Require development to incorporate linked public trail corridors identified in the Mammoth Lakes Trail System Plan into overall project site plan (Policy P.5.C).

[2] P.4.B. Policy lists 29 activities.

- Design parks and open space to be accessible and usable except when set aside for preservation of natural resources, health and safety (Policy P.5.E).

- Identify, zone and procure land for new and expanded parklands including:[3]

  - Develop an integrated trail system in cooperation with federal agencies and consistent with the Town's General Plan (Mobility Element), by updating the General Bikeway Plan and Trail System Plan (Policy P.5.I).

  - The trail system should accommodate winter and summer use by a variety of users, including pedestrians, bicyclists, and Nordic sports enthusiasts (Policy P.5.J).

  - The trail system should connect parks, schools, other designated activity centers, and trails on public lands adjacent to Mammoth Lakes (Policy P.5.K).

- Plan parks and recreation facilities and develop recreation programs with public input (Policy P.6.A).

- Distribute parkland within the community to increase walkability from key residential nodes (Policy P.6.B).

- Offer and accommodate events and activities that foster community gathering and celebration (Policy P.6.C).

- Encourage neighborhood district identity and cohesion through events and programs (Policy P.6.D).

- Provide facilities and programs that support togetherness within and among families (Policy P.6.E).

Town of Mammoth Lakes Trail System Master Plan

The *Town of Mammoth Lakes Trail System Master Plan* (Trail System Master Plan), adopted October 19, 2011, updates the 1991 Trail System Plan, in accordance with the General Plan. The Trail System Master Plan also carries forward projects from the *General Bikeway Plan* and the *Sherwins Area Recreation Plan* (SHARP). The Trail System Master Plan envisions an integrated system of infrastructure and programs that support recreation and mobility simultaneously, by seamlessly connecting homes, hotels, businesses, recreation nodes, and backcountry experiences. It is based on the notion that the recreational trail experience begins when you leave your home or hotel, not just when you park your car at the trailhead. In addition to new trails, paved pathways, signage and wayfinding, and associated amenities, the Trail System Master Plan includes suggestions for other improvements such as sidewalks, crosswalks, bus stops, bike lanes, bicycle parking, summer maintenance, and snow removal.

[3] P.5.G. Policy lists 11 activities.

Town of Mammoth Lakes Pedestrian Master Plan

The *Town of Mammoth Lakes Pedestrian Master Plan* (Pedestrian Master Plan), adopted April 16, 2014, serves as an update to the Town's Sidewalk Master Plan and guides the future development and enhancement of pedestrian facilities within the Town. It is intended to follow the General Plan Mobility Element goals, policies, and actions related to pedestrian infrastructure. The Pedestrian Master Plan focuses on the triple-bottom-line, which is where transportation complements the community's social, economic, and natural capital and seeks to implement feet-first transportation, which emphasizes and prioritizes: 1) non-motorized travel; 2) public transportation; and 3) vehicles. The Pedestrian Master Plan inventories existing infrastructure, assesses current and future needs, and makes recommendations for the funding and implementation of projects.

Town of Mammoth Lakes Bikeway Plan Update

The *Town of Mammoth Lakes Bikeway Plan Update* (Bikeway Plan Update), adopted April 16, 2014, guides the future development of bicycle facilities and programs in the Town. Its recommendations facilitate bicycling for transportation and recreation and help attain the goals identified in the bicycle section of the General Plan Mobility Element. The Bikeway Plan Update seeks to meet the community needs and desires for a pleasant, enjoyable, and safer bicycle experience by establishing an overall framework for developing the bicycle network.

Town of Mammoth Lakes Municipal Code

Article II. Development Impact Mitigation Fees. The Town has established development impact fees which are imposed on the issuance of building permits for development within the Town. Any person who seeks to develop land within the Town by applying for a building permit is required to pay the appropriate development impact fee prior to the first framing or "skeleton" inspection of the permit or annex into a Mello Roos District, if established. A development impact fee, Circulation System (Streets, Signals, Bridges, Transit and Trails), has been established. Revenues are deposited into a fund and administered on a consolidated basis.

5.5.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

DEFINITION OF LOS THRESHOLDS SIGNIFICANT IMPACT

Definition of LOS Thresholds

For signalized intersections, the total intersection LOS D (less than 55.0 seconds of delay) or better must be maintained. Therefore, if a signalized intersection is found to operate at a total intersection LOS E or F, mitigation is required. It is assumed that this same threshold applies to roundabouts.

For unsignalized intersections, in order to avoid the identification of a LOS failure for intersections that result in only a few vehicles experiencing a delay greater than 50 seconds (such as at a driveway serving a few homes that accesses onto a busy street), a LOS deficiency is not identified for all

intersections with approach LOS E or F. Instead, a LOS deficiency is assumed to occur at an unsignalized intersection only if an individual minor street movement operates at LOS E or F and total minor approach delay exceeds four vehicle hours for a single lane approach and five vehicle hours for a multi-lane approach. In other words, a deficiency is found to occur if the average number of vehicles queued over the peak-hour exceeds four at a single-lane approach, or exceeds five at a multi-lane approach.

Definition of Significant Impact

The identification of significant impacts is a requirement of the California Environmental Quality Act (CEQA). A traffic impact is considered significant and immitigable if the project both: i) contributes measurable traffic to, and ii) substantially and adversely changes the level of service at any off-site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the General Plan cannot be constructed.

Significance Criteria

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit (refer to Impact Statements TRA-1 and TRA-2);

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways refer to Section 8.0, *Effects Found Not To Be Significant*;

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; refer to Section 8.0, *Effects Found Not To Be Significant*;

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) [refer to Impact Statement TRA-2];

- Result in inadequate emergency access; refer to Section 8.0, *Effects Found Not To Be Significant*;

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities refer to Section 8.0, *Effects Found Not To Be Significant*.

5.5.4 IMPACTS AND MITIGATION MEASURES

CONSTRUCTION TRAFFIC

TRA-1 PROJECT CONSTRUCTION WOULD NOT CAUSE A SIGNIFICANT INCREASE IN TRAFFIC FOR EXISTING CONDITIONS WHEN COMPARED TO THE TRAFFIC CAPACITY OF THE STREET SYSTEM.

Impact Analysis: Construction-related trips associated with trucks and employees traveling to and from the project site may result in minor traffic delays within the project area. However, the potential traffic interference caused by construction vehicles would only be a temporary, impact to vehicles using Old Mammoth Road and Meadow Lane in the morning and afternoon hours.

Hauling of the material would be restricted to occur during the off-peak hours (9:00 a.m. to 3:00 p.m.) and appropriate traffic control personnel ("flaggers") would be used to ensure construction vehicles operate safely along Old Mammoth Road and Meadow Lane in a manner that minimizes disruption of traffic along these roadways. A small access road would be extended off Meadow Lane and would be used periodically during construction.

It is anticipated that a maximum of 30 workers and an average of 24 workers per day would be on site at any given time during construction of the project. Many of these workers would stagger their work schedules and would not arrive or depart at the same time. However, as a conservative estimate, if all 30 workers drove individually and arrived and departed during the peak periods, the interim traffic generated by construction workers traveling to and from the project site would be less than what the project would generate when fully constructed and occupied. The actual construction worker trip volumes would be dispersed throughout the peak period (consisting of multiple hours) and the entire day. The temporary nature of the construction trips and the nominal increase in temporary traffic volumes would not result in a significant impact. Thus, construction worker traffic impacts would be less than significant in this regard.

In order to reduce the potential impact of construction-related vehicles interacting with pedestrians and local traffic, a construction management plan would be developed to implement a variety of measures to minimize traffic and parking impacts upon the local circulation system (Mitigation Measure TRA-1). The construction management plan would include, but not be limited to the: prohibition of construction worker parking along local streets, identification of appropriate haul routes to avoid traffic disruptions, and limitation of hauling activities to off-peak hours. Implementation of a construction management plan would ensure potential impacts associated with construction-related traffic would be reduced to a less than significant level.

Mitigation Measures:

TRA-1 Prior to Issuance of any grading and/or demolition permits, whichever occurs first, a Construction Management Plan shall be submitted for review and approval by the Public Works Director. The Construction Management Plan shall, at a minimum, address the following:

- Traffic control for any street closure, detour, or other disruption to traffic circulation.

- Identify construction vehicles haul routes for the delivery of construction materials (i.e., lumber, tiles, piping, windows, etc.) to the site; necessary traffic controls and detours; and a construction phasing plan for the project.
- Identify any off-site construction staging or material storage sites.
- Specify the hours during which transport activities can occur and methods to mitigate construction-related impacts to adjacent streets.
- Require the Contractor to keep all haul routes clean and free of debris, including but not limited, to gravel and dirt as a result of its operations. The Contractor shall clean adjacent streets, as directed by the Town Engineer (or representative of the Town Engineer), of any material which may have been spilled, tracked, or blown onto adjacent streets or areas.
- The scheduling of hauling or transport of oversize loads shall avoid peak hour traffic periods to the maximum extent feasible, unless approved otherwise by the Town Engineer. No hauling or transport shall be allowed during nighttime hours or Federal holidays. All hauling and transport activities shall comply with Municipal Code Chapter 8.16, *Noise Regulation*.
- Haul trucks entering or exiting public streets shall at all times yield to public traffic.
- If hauling operations cause any damage to existing pavement, streets, curbs, and/or gutters along the haul route, the contractor shall be fully responsible for repairs. The repairs shall be completed to the satisfaction of the Town Engineer.
- All constructed-related parking and staging of vehicles shall be kept out of the adjacent public roadways and shall occur on-site.
- This Construction Management Plan shall meet standards established in the current California Manual on Uniform Traffic Control Device (MUTCD) as well as Town of Mammoth Lakes requirements.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

PROJECT TRAFFIC GENERATION

TRA-2 PROJECT IMPLEMENTATION WOULD NOT CAUSE A SIGNIFICANT INCREASE IN TRAFFIC WHEN COMPARED TO THE TRAFFIC CAPACITY OF THE STREET SYSTEM.

Impact Analysis: "Trip generation analysis" is the process by which transportation analysts identify the number of vehicle-trips that a specific proposed land use plan would add to local roadways. The trip generation of the proposed project is estimated. A credit for trips to be eliminated from the site of the existing ice rink was estimated. The "project net impact" on total trip generation through the study area was determined.

The Institute of Transportation Engineers (ITE) Trip Generation Manual does contain trip rates for an ice skating rink; however, the rates are not utilized in this analysis since there is an insufficient amount of data points available. Additionally, for the proposed multi-use facilities, the ITE Manual standard trip generation rates would not accurately reflect the trip generation due to the unique activities to be offered at the site. The ITE trip Generation Manual only has one data point for ice skating rinks, meaning the rate is based on data collected at only one ice rink location. Users of the manual are cautioned to use this data with care because of the small sample size. A more accurate estimation of trip generation is provided based on a 'person-trip analysis', which evaluates the number of persons that are estimated to arrive and depart the site over the course of the day, factored by their expected travel modes, vehicle occupancy rates, and drop-off/pick-up activity. Multiplying the number of person trips entering and exiting the site driveway by the percent of trips made by automobile, and dividing by the average vehicle occupancy rate yields the number of vehicle trips. Next, additional vehicle trips are included to reflect the drop-off and pick-up trips (given that one drop-off trip generates two trips at the site driveway, one entering and one exiting).

Consistent with Town standards, the design day is a busy winter Saturday, but not a peak time (such as Christmas week). A list of all activities that would take place at the new Multi-Use/Community Center is shown in Table 5.5-3, *Proposed Multi-Use Community Center – Determination of Design Day*. Programs/activities included in the design day are indicated with a 'yes' in the far right column.

Design day activities are listed in Table 5.5-4, *Proposed Project Daily Trip Generation*. As shown in Table 5.5-4, it is estimated that the Multi-Use/Community Center would generate 590 daily trips. The existing ice skating rink provides the same uses as the proposed ice skating rink, including Recreational Skating, Ice Skating/Figure Skating Program (Get up and Go), and Youth and Adult Hockey. Therefore the number of persons using the existing ice skating rink is estimated at 450 persons per day, which is the same as the proposed ice skating rink. Not all the trips generated by the project are new trips as all the ice skating rink-related trips are already on the area roadways (380 daily trips). These trips would be shifted to the project site; therefore, the net impact of the project on area roadways is 210 daily trips.

The number of these trips occurring in the peak hour is summarized in Table 5.5-5, *Proposed Project P.M. Peak Hour Trip Generation*, for a total of 116 p.m. peak hour (62 entering; 54 exiting). The ice skating rink-related trips occurring in the peak hour is 80 p.m. peak hour (46 entering; 34 exiting). As these trips would be shifted to the project site, the net trips occurring in the peak hour is 36 p.m. peak hour (16 entering; 20 exiting).

The distribution of traffic arriving and departing the project site is estimated based on existing traffic patterns, the location of the site relative to residential and commercial uses in the region, and regional access patterns. Existing traffic patterns were based on recent count data in the area and from the Town of Mammoth Lake Travel Model). P.M. peak-hour traffic volumes are shown in Table 5.5-6, *P.M. Peak Hour Intersection Turning Movement Volumes*.

Table 5.5-3
Proposed Multi-Use Community Center – Determination of Design Day

Program/Activity	Winter?	Saturday?	If Saturday, What time?	P.M. Peak Hour?[1]	Frequency	Max Attendees	Total[1]
Ice Rink							
Recreational Skating	Yes	Yes	2 p.m. – 10 p.m.	**Yes**	Daily	300	**Yes**
Youth and Adult Hockey	Yes	Yes	9 a.m. – 11 a.m.	No	Daily	100	**Yes**
Ice Skating/Figure Skating Program	Yes	Yes[2]	4:30 p.m. – 5:30 p.m.	**Yes**	Daily	50	**Yes**
Curling Program	Yes	No	-	-	Weekly	100	No
Skate Program	Yes	No	-	-	Weekly	50	No
Ice Rental	Yes	No	-	-	Weekly	50	No
Birthday Party	Yes	Yes	9 a.m. – 9 p.m.	Yes	Weekly	100	No[3]
Community Events	Yes	No	-	-	Monthly/Occasionally	200	No
Special Programs / Events	Yes	No	-	-	Monthly/Occasionally	100	No
Hockey Tournaments	Yes	Yes	6 a.m. – 12 p.m., 6 p.m. – 12 a.m.	No	Monthly/Occasionally	200	No
Private Rentals	Yes	No	-	-	Monthly/Occasionally	200	No
Professional/Club/College/School Rental	Yes	No	-	-	Monthly/Occasionally	200	No
Community Center							
Educational Programming	Yes	No	-	-	Weekly	100	No
Adult Introductory Fitness Classes	Yes	Yes	7 p.m. – 9 p.m.	No	Weekly	50	**Yes**
Youth Introductory Fitness Classes	Yes	No	5 p.m. – 7 p.m.	No	Weekly	50	No
Games	Yes	Based on Availability	4 p.m. – 10 p.m.	**Yes**	Weekly	50	**Yes**
Summer Arts Camps / Craft Programs	No	-	-	**-**	Weekly	-	No
Training/Certification & Community Board Meetings	Yes	Yes, Based on Availability	8 a.m. – 6 p.m.	**Yes**	Weekly	50	**Yes**
Breastfeeding support	Yes	Based on Availability	12 p.m. – 10 p.m.	**Yes**	Weekly	10	**Yes**
County First 5 programs	Yes	No	-	**-**	Weekly	30	No
Youtheatre/Rehearsal Space	No	-	-	**-**	Weekly	30	No
Drop-in Art Programs	Yes	Based on Availability	7 pm – 10 p.m.	No	Monthly	50	**Yes**
Ted Talks	Yes	Based on Availability	6 p.m. – 10 p.m.	No	Monthly	-	No
Community and Social Gathering	Yes	Based on Availability	12 p.m. – 10 p.m.	Yes	Monthly	100	No
Indoor Venue/Staging Area	No	Based on Availability	12 p.m. – 10 p.m.	Yes	Monthly	200	No
Rotating Art Gallery	Yes	Yes	N/A	Yes	Monthly	N/A	No
Community Variety/Talent Show		Based on Availability	6 p.m. – 10 p.m.	No	Monthly	200	No
Teen Safe Space Hangout					Occasionally		No
Facility Rentals for Events/Conferences					Occasionally		No
Movie Nights					Occasionally		No

Notes:
1. **Bold** indicates the activity is included in the design day.
2. Includes the Get up and Go Program.
3. No because it is included in Recreational Skating which is already included in the design day.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

Table 5.5-4
Proposed Project Daily Trip Generation

Land Use	Persons per day	Persons in Autos[1]	Total Vehicles[2]	Percent Drop Off / Pick Up[3]	Daily Vehicle Trips at Site Driveway		
					In	Out	Total
PROPOSED USES							
Ice Rink							
- Recreational Skating	300	245	91	40%	127	127	254
- Ice Skating/Figure Skating Program (Get up and Go)	50	41	15	40%	21	21	42
- Youth and Adult Hockey	100	82	30	80%	42	42	84
- Subtotal of Ice Skating Rink	450	368	136	-	190	190	380
Games	100	82	30	80%	42	42	84
Meeting or event in multipurpose rooms (2 per day)	100	82	30	40%	42	42	84
Drop-in Art Programs or Adult Fitness Class	50	41	15	20%	21	21	42
Total Proposed Uses	*700*	*573*	*211*	-	*295*	*295*	*590*
EXISTING USES							
Ice Rink							
- Recreational Skating	300	245	91	40%	127	127	254
- Ice Skating/Figure Skating Program (Get up and Go)	50	41	15	40%	21	21	42
- Youth and Adult Hockey	100	82	30	80%	42	42	84
Total of Existing Ice Skating Rink	*450*	*368*	*136*	-	*190*	*190*	*380*
Net Impact of Project on Area Roadways	**250**	**205**	**75**	**-**	**105**	**105**	**210**

Notes:
1. Mode split includes 5 percent walking, 14 percent transit, and 81 percent automobile.
2. Assumption of 2.7 persons per vehicle.
3. A significant proportion of activity participants would be dropped off and picked up, which doubles the number of trips generated (as each drop-off or pick-up generates two trips at the site driveway, one inbound and one outbound). Pick-up/drop-off percentages vary based on activity. The portion of persons dropped-off/picked-up for each activity was estimated by Town staff.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

Table 5.5-5
Proposed Project P.M. Peak Hour Trip Generation

Land Use	Persons per day	Persons in Autos[1]	Total Vehicles[2]	Portion of trips occurring in Peak Hour		Percent Drop Off / Pick Up	Daily Vehicle Trips at Site Driveway		
				In	Out		In	Out	Total
Ice Rink									
- Recreational Skating	200	163	60	50%	25%	40%	36	27	63
- Ice Skating/Figure Skating Program (Get up and Go)	50	41	15	50%	25%	40%	10	7	17
Subtotal of Ice Skating Rink	*250*	*204*	*75*	-	-	-	*46*	*34*	*80*
Games	50	41	15	50%	10%	80%	10	8	18
Meeting or event in multipurpose rooms (1 during peak hour)	50	41	15	10%	75%	40%	6	12	18
Total Proposed Project	*350*	*286*	*105*	-		-	*62*	*54*	*116*
Total of Existing Ice Skating Rink	250	204	75	-		-	46	34	80
Net Impact of Project on Area Roadways	**100**	**82**	**30**	**-**		**-**	**16**	**20**	**36**

Notes:
1. Mode split includes 5 percent walking, 14 percent transit, and 81 percent automobile.
2. Assumption of 2.7 persons per vehicle.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

Table 5.5-6
P.M. Peak Hour Intersection Turning Movement Volumes

Study Intersection		Northbound			Southbound			Eastbound			Westbound			Total
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing No Project														
1	Old Mammoth Road/ Meridian Boulevard	128	230	48	118	295	59	188	680	112	96	365	75	2,394
2	Old Mammoth Road/ Chateau Road	11	251	5	48	300	75	37	16	11	5	11	27	797
3	Old Mammoth Road/ Site Access Road	2	259	0	0	300	2	2	0	2	0	0	0	567
Future No Project														
1	Old Mammoth Road/ Meridian Boulevard	150	270	55	130	360	65	195	700	130	110	375	85	2,625
2	Old Mammoth Road/ Chateau Road	15	350	5	95	415	90	40	30	15	5	20	55	1,135
3	Old Mammoth Road/ Site Access Road	2	370	0	0	435	2	2	0	2	0	0	0	813
Project Net Impact														
1	Old Mammoth Road/ Meridian Boulevard	25	16	-6	-14	19	0	0	-21	29	-4	-16	-10	18
2	Old Mammoth Road/ Chateau Road	2	39	0	0	47	-1	-2	0	2	0	0	0	87
3	Old Mammoth Road/ Site Access Road	8	-6	0	0	-5	54	47	0	7	0	0	0	105
Existing Plus Project														
1	Old Mammoth Road/ Meridian Boulevard	153	246	42	104	314	59	188	659	141	92	349	65	2,412
2	Old Mammoth Road/ Chateau Road	13	290	5	48	347	74	35	16	13	5	11	27	884
3	Old Mammoth Road/ Site Access Road	10	253	0	0	295	56	49	0	9	0	0	0	672
Future Plus Project														
1	Old Mammoth Road/ Meridian Boulevard	175	286	49	116	379	65	195	679	159	106	359	75	2,643
2	Old Mammoth Road/ Chateau Road	17	389	5	95	462	89	38	30	17	5	20	55	1,222
3	Old Mammoth Road/ Site Access Road	10	364	0	0	430	56	49	0	9	0	0	0	918

Note: Negative volumes reflect the shift in existing traffic associated with the existing ice rink.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

Based on a review of these factors, the estimated distribution pattern for trips made in and out of the project site is summarized in Table 5.5-7, *Project Trip Distribution*. The site-generated trips are assigned through the study intersections by applying the trip distribution pattern to the trip generation from Table 5.5-4.

Table 5.5-7
Project Trip Distribution

Origin	Distribution
Old Mammoth Road north of Meridian Boulevard	30%
Meridian Boulevard west of Old Mammoth Road	46%
Chateau Road west of Old Mammoth Road	4%
Old Mammoth Road south of Project Driveway	13%
Meridian Boulevard east of Old Mammoth Road	3%
Between Chateau Road and Meridian Boulevard	4%
Total Percent Distributed	**100%**

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

Existing With Project Conditions

Traffic operations at the study intersections were assessed in terms of LOS and delay. LOS analyses were performed at all of the study intersections under existing without and existing with project conditions.

Intersection Levels of Service

Table 5.5-8, *Existing With Project Peak Hour Intersection Analysis*, summarizes the peak hour LOS results at the study intersections for existing with project conditions.

Table 5.5-8
Existing With Project Peak Hour Intersection Analysis

Study Intersection		Traffic Control[1]	Existing Without Project		Existing With Project		Significant Project Impact?
			Delay[1]	LOS	Delay[1]	LOS	
1	Old Mammoth Road/Meridian Boulevard	Traffic Signal	30.6 sec	C	32.9 sec	C	No
2	Old Mammoth Road/Chateau Road	Stop-Control	20.1 sec	C	22.9 sec	C	No
3	Old Mammoth Road/Site Access Road	Stop-Control	11.6 sec	B	11.7 sec	B	No

LOS = level of service; sec = seconds.

Notes:
1. LOS is reported as total intersection delay for signalized intersection and worst movement/approach for unsignalized intersections and roundabouts.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

As indicated in Table 5.5-8, all study intersections are anticipated to operate at an acceptable LOS (LOS D or better) based on the Town's performance criteria under existing with project conditions.

Turn Lanes

As there are no LOS deficiencies, intersection improvements are not needed. However, turn lanes may be warranted to enhance safety by separating vehicles turning into the site from those passing by the site. Using the National Cooperative Highway Research Program (NCHRP) 457 Guidelines, a northbound left-turn lane and a southbound right-turn lane along Old Mammoth Road into the site were evaluated. Based on the proposed volumes with the project, no turn lanes are warranted under any project scenarios.

Vehicle Miles Traveled

Existing vehicle miles traveled (VMT) data was developed as part of the recent Mammoth Lakes Mobility Element EIR. The existing without project VMT townwide is 152,844, shown in Table 5.5-9, *Mammoth Creek Park West Vehicle Miles Traveled*. The VMT impact of the project was then assessed by calculating the average trip length for each zone, and then multiplying it by the number of trips. An additional 386 vehicle miles traveled is expected to be generated in the Town of Mammoth Lakes by the proposed project. This VMT was then added to the existing without project VMT to create the existing with project values of 153,231; refer to Table 5.5-9. It is noted that the increase in VMT due to the project is minimal at approximately 0.3 percent of existing VMT.

Table 5.5-9
Mammoth Creek Park West Vehicle Miles Traveled

Origin/Destination	Average Distance (miles)	Percent of Trips to Area	Net Increase in Daily Trips	Net Increase in Daily VMT
Old Mammoth Road north of Meridian Blvd	1.6	30%	63	101
Meridian Blvd west of Old Mammoth Road	2.5	46%	97	239
Chateau Road west of Old Mammoth Road	0.8	4%	8	7
Old Mammoth Road south of Project Driveway	1.2	13%	28	34
Meridian Blvd east of Old Mammoth Road	0.7	3%	6	4
Between Chateau Road and Meridian Blvd	0.2	4%	8	2
Project Net Impact	-	*100%*	*210*	*387*
Townwide VMT				
Existing No Project	152,844			
Future No Project	178,638			
Project Net Impact	387			
Existing Plus Project	153,231			
Future Plus Project	179,025			

VMT = vehicle miles traveled.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

Line of Sight

Implementation of the proposed project could impact line of sight. Adequate traffic conditions are expected to be provided with the proposed project, as long as the final landscaping plans provide adequate drive sight distance at the site driveway. Mitigation Measure TRA-2 would reduce line of sight impacts by providing adequate drive sight distance at the site driveway on final landscaping plans. Upon implementation of Mitigation Measure TRA-2, impacts in this regard would be less than significant.

Conclusion

All intersections would operate at an acceptable LOS under their existing configurations and control. No new turn lanes are expected to be necessary along Old Mammoth Road at the site access intersection. Mitigation Measure TRA-2 states that the final landscape plans would provide adequate drive sight distance at the site driveway. With implementation of Mitigation Measure TRA-2, impacts would be less than significant in this regard.

Mitigation Measures:

TRA-2 Prior to Issuance of any grading and/or demolition permits, whichever occurs first, final landscaping plans shall be submitted for review and approval by the Town Engineer to provide adequate drive sight distance at the site driveway.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.5.5 CUMULATIVE IMPACTS

For traffic purposes, Town staff has directed that the "future model with new FAR (floor area ratio) and with the new Mobility Element" version be used for purposes of cumulative analysis.

- **CONSTRUCTION OF THE PROPOSED PROJECT, AND OTHER RELATED CUMULATIVE PROJECTS, COULD INCREASE TRAFFIC WHEN COMPARED TO THE TRAFFIC CAPACITY OF THE EXISTING STREET SYSTEM.**

Impact Analysis: Construction activities associated with the proposed project and cumulative projects may overlap, resulting in traffic impacts to local roadways. However, as stated, construction of the proposed project would not result in significant traffic impacts to study intersections. Further, the project would be required to prepare a Construction Management Plan in order to reduce the impact of construction-related traffic upon the local circulation system within the project area. The cumulative development projects would also be required to reduce construction traffic impacts on the local circulation system and implement any required mitigation measures that may be prescribed pursuant to CEQA provisions. Therefore, the project's contribution to cumulative construction traffic impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measure TRA-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS, WOULD NOT CAUSE A SIGNIFICANT INCREASE IN TRAFFIC FOR EXISTING AND FUTURE CUMULATIVE CONDITIONS WHEN COMPARED TO THE TRAFFIC CAPACITY OF THE STREET SYSTEM.**

Impact Analysis:

Future With Project Conditions

Table 5.5-10, *Project P.M. Peak Hour Intersection Turning Movement Volumes*, shows the future without project and future with project intersection turning movement volumes.

Table 5.5-10
Project P.M. Peak Hour Intersection Turning Movement Volumes

Study Intersection		Northbound			Southbound			Eastbound			Westbound			Total
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Future Without Project														
1	Old Mammoth Road/ Meridian Boulevard	150	270	55	130	360	65	195	700	130	110	375	85	2,625
2	Old Mammoth Road/ Chateau Road	15	350	5	95	415	90	40	30	15	5	20	55	1135
3	Old Mammoth Road/ Site Access Road	2	370	0	0	435	2	2	0	2	0	0	0	813
Future With Project														
1	Old Mammoth Road/ Meridian Boulevard	175	286	49	116	379	65	195	679	159	106	359	75	2643
2	Old Mammoth Road/ Chateau Road	17	389	5	95	462	89	38	30	17	5	20	55	1222
3	Old Mammoth Road/ Site Access Road	10	364	0	0	430	56	49	0	9	0	0	0	918

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

Traffic operations at the study intersections were assessed in terms of LOS and delay. LOS analyses were performed at all of the study intersections under future scenarios.

Intersection Levels of Service

Table 5.5-11, *Future With Project Peak Hour Intersection Analysis*, summarizes the peak hour LOS results at the study intersections for future without project and future with project conditions.

Table 5.5-11
Future With Project Peak Hour Intersection Analysis

	Study Intersection	Traffic Control[1]	Future Without Project			Future With Project			Significant Project Impact?
			Delay[1]	Veh-Hrs	LOS	Delay[1]	Veh-Hrs	LOS	
1	Old Mammoth Road/Meridian Boulevard	Traffic Signal	34.0 sec	-	C	36.2 sec	-	C	No
2	Old Mammoth Road/Chateau Road	Stop-Control	42.5 sec	1.0	E	52.8 sec	1.1	F	No
3	Old Mammoth Road/Site Access Road	Stop-Control	11.5 sec	-	B	12.9 sec	-	B	No

LOS = level of service; sec = seconds.

Notes:
1. LOS is reported as total intersection delay for signalized intersection and worst movement/approach for unsignalized intersections and roundabouts.

Source: LSC Transportation Consultants, Inc., *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, dated July 29, 2016; included as Appendix 11.4, *Traffic Impact Analysis*.

As indicated in Table 5.5-11, under future cumulative conditions the LOS may degrade by one level at the eastbound approach of Old Mammoth Road/Chateau Road intersection. However, the Old Mammoth Road/Chateau Road intersection maintains an acceptable LOS with less than four cumulative hours of delay. All other study intersections are anticipated to operate at an acceptable LOS (LOS D or better) based on the Town's performance criteria under future cumulative conditions. Therefore, impacts would be less than significant in this regard.

Vehicle Miles Traveled

Existing VMT data was developed as part of the recent Mammoth Lakes Mobility Element EIR. The future without project VMT townwide is 178,638, shown in Table 5.5-9. The VMT impact of the project was then assessed by calculating the average trip length for each zone, and then multiplying it by the number of trips. An additional 386 vehicle miles traveled is expected to be generated in the Town of Mammoth Lakes by the proposed project. This VMT was then added to the future VMT to result in the future with project values of 179,025; refer to Table 5.5-9. It is noted that the increase in VMT due to the project is minimal at approximately 0.3 percent of future VMT.

Line of Sight

Implementation of the proposed project could impact line of sight. Adequate traffic conditions are expected to be provided with the proposed project with implementation of Mitigation Measure TRA-2 as final landscaping plans would provide adequate drive sight distance at the site driveway. Thus, with implementation of Mitigation Measure TRA-2, impacts in this regard would be less than significant.

Cumulative projects would be evaluated on a project-by-project basis, as they are implemented within the Town of Mammoth Lakes. Each cumulative project would undergo a similar plan review process as the proposed project, to determine potential line of sight impacts. Individual projects would be required to implement required mitigation measures (Mitigation Measure TRA-2) that may be

prescribed pursuant to CEQA provisions. Project impacts would not be cumulatively considerable and impacts in this regard would be less than significant.

The proposed project would not result in a cumulatively considerable traffic impacts in regards to local intersections. Impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measure TRA-2.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.5.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to traffic/circulation have been identified.

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5.6 Air Quality

5.6 AIR QUALITY

This section addresses the air emissions generated by the construction and operation of the proposed project, and the potential impacts to air quality. The analysis also addresses the consistency of the proposed project with the air quality policies set forth within the *Mammoth Lakes Air Quality Maintenance Plan and PM_{10} Redesignation Request for the Town of Mammoth Lakes* (2014 AQMP) prepared by the Town of Mammoth Lakes and the Great Basin Unified Air Pollution Control District (GBUAPCD). The analysis of project-generated air emissions focuses on whether the proposed project would cause an exceedance of an ambient air quality standard or GBUAPCD significance threshold. Air quality technical data is included in Appendix 11.5, *Air Quality/Greenhouse Gas Emissions Data*.

5.6.1 EXISTING SETTING

GREAT BASIN VALLEYS AIR BASIN

Geography

The Town of Mammoth Lakes (Town) is located in the Great Basin Valleys Air Basin (Basin), which is bounded by the Sierra Nevada mountain range to the west, the White, Inyo, and Coso ranges to the east, Mono Lake to the north, and Little Lake to the south. The Basin includes Mono County, where the project site is located, as well as Alpine and Inyo Counties.

The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of air pollutants throughout the Basin.

Climate

The climate of the area consists of variable daily temperatures, clear skies, warm summers, cold winters, and low humidity. The Town is located at an average elevation of 8,000 feet above mean sea level, and encompasses approximately 25 square miles of land. The Town receives an average snowfall of over 200 inches per year. The majority of precipitation takes place between the winter months of December and February with an annual average of 43 inches of water (equivalent to approximately 29 feet of snowpack) recorded at Mammoth Pass.

The average annual temperature varies from a minimum in the upper 20 degrees Fahrenheit (°F) to a maximum of mid to high 50's. January is usually the coldest month, while July and August are usually the warmest months. The average annual wind speed in the area is less than 10 miles per hour (mph), the strongest beginning in the spring months. Average annual relative humidity is approximately 50 percent, and skies are mostly clear. Spring is the windiest season with fast-moving northerly weather fronts. Due to the increased elevation of the Town relative to some of the lower lying areas in the Basin, winds are primarily light and variable. Occasionally, a westerly "Zephyr" wind blows beginning in the early afternoon until the early evening during summer months.

LOCAL AMBIENT AIR QUALITY

The GBUAPCD monitors air quality at 20 monitoring stations throughout the Basin. The monitoring station representative of this area is the Bishop-Line Monitoring Station, which is located approximately 36 miles southeast of the project site. The Bishop-Line Monitoring Station monitoring station monitors particulate matter (PM_{10}), fine particulates ($PM_{2.5}$), and Ozone (O_3). However, the Bishop-Line Monitoring Station monitoring station only has O_3 data for 2015. Therefore, O_3 data from 2013 and 2014 was gathered from the Death Valley monitoring station, which is located approximately 140 miles southeast of the project site. The air quality data from 2013 to 2015 monitored at these stations are presented in Table 5.6-1, *Local Air Quality Levels*.

Table 5.6-1
Local Air Quality Levels

Pollutant	Primary Standard		Year	Maximum Concentration[1]	Number of Days State/Federal Std. Exceeded
	California	Federal			
Ozone (O_3) [2] (1-Hour)	0.09 ppm for 1 hour	N/A	2013[2] 2014[2] 2015[3]	0.080 ppm 0.080 0.076	0/NA 0/NA 0/NA
Ozone (O_3) [2] (8-Hour)	0.07ppm for 8 hours	0.075 ppm for 8 hours	2013[2] 2014[2] 2015[3]	0.074 ppm 0.076 0.070	5/0 3/0 0/0
Particulate Matter (PM_{10}) [3, 4, 5]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours	2013 2014 2015	325.0 µg/m^3 159.0 289.0	0/3 0/1 0/1
Fine Particulate Matter ($PM_{2.5}$) [3,5]	No Separate State Standard	35 µg/m^3 for 24 hours	2013 2014 2015	N/A N/A 97.1 µg/m^3	N/A v 3/0

ppm = parts per million
µg/m^3 = micrograms per cubic meter
NM = Not Measured
PM_{10} = particulate matter 10 microns in diameter or less
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less
NA = Not Applicable

Notes:
1. Maximum concentration is measured over the same period as the California Standard.
2. Measurements taken at the Death Valley National Monument Monitoring Station (located near Furnace Creek, Death Valley, California 92328).
3. Measurements taken at the Bishop-Line Monitoring Station located at 300 East Line Street, Bishop, CA 93514.
4. PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
5. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Source: California Air Resources Board, *ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed on August 3, 2016.

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions.

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide. Exposure to high levels of carbon monoxide can slow reflexes and cause drowsiness, and result in death in confined spaces at very high concentrations.

Ozone (O_3). Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

"Bad" ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO_X), and sunlight to form; therefore, VOCs and NO_X are ozone precursors. To reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While ozone in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone (in the troposphere) can adversely affect the human respiratory system and other tissues. Ozone is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of ozone. Short-term exposure (lasting for a few hours) to ozone at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). Nitrogen oxides (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO_2 can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2). SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SO_X and lead (Pb). Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The following types of people are most likely to be adversely affected by air pollution, as identified by CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools, and parks. Sensitive receptors in the project vicinity include multi-family residential homes, resort condominiums, hotels, recreational trails, and a place of worship. Sensitive receptors are depicted below in Table 5.6-2, *Sensitive Receptors*.

5.6.2 REGULATORY SETTING

U.S. ENVIRONMENTAL PROTECTION AGENCY

The EPA is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare; refer to Table 5.6-3, *National and California Ambient Air Quality Standards*.

Table 5.6-2
Sensitive Receptors

Type	Name	Approximate Distance from Project Site (feet)	Orientation from Project Site	Location/Description
Residential	Residential Uses	Adjoining	North	Chateau Blanc Condominiums, 3199 Chateau Rd.
		75	Southwest	Mammoth Creek Condominiums, 96 Meadow Lane
		Adjoining	West	La Vista Blanc Condominiums, 122 Meadow Lane
		Adjoining	Northwest	Chateau De Montagne Condominiums, 3311 Chateau Road
		390	West	Sunrise Condominiums, 50 Meadow Lane
Hotels/Motels	Sierra Nevada Resort	2,305	North	164 Old Mammoth Road
	Mammoth Creek Inn	90	Northeast	663 Old Mammoth Road
	Snowcreek Resort	2,830	Southwest	1254 Old Mammoth Road
Schools	Mammoth High School	1,785	Northeast	365 Sierra Park Road
	Mammoth Middle School	2,170	Northeast	1600 Meridian Boulevard
	Mammoth Elementary School	2,775	Northeast	1500 Meridian Boulevard
Places of Worship	LightHouse Church	700	North	501 Old Mammoth Road
	The Church of Jesus Christ of Latter-day Saints	1,570	Northwest	2174 Meridian Blvd
	Mammoth Lakes Lutheran Church	1,465	Northeast	379 Old Mammoth Road
	Kingdom Hall of Jehovah's Witnesses	2.040	Northeast	181 Sierra Manor Road
Hospitals	Mammoth Hospital	2,455	Northeast	85 Sierra Park Road
Libraries	Mammoth Lakes Branch Library	1,500	Northeast	400 Sierra Park Road
Recreation/Parks	Sierra Star Golf Course	1,440	Northwest	2001 Sierra Star Parkway
	Town Loop trail	Adjoining	South/East	North of Old Mammoth Road
	Snowcreek Golf Course	800	Southwest	2 Fairway Drive

Note:
1. Distances are measured from the exterior project boundary only and not from individual construction projects/areas within the interior of the project site.

Source: Google Earth, 2016.

Table 5.6-3
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 μg/m³)	**Nonattainment**	N/A[5]	N/A[5]
	8 Hour	0.070 ppm (137 μg/m³)	**Nonattainment**	0.070 ppm (147 μg/m³)	Unclassified/Attainment
Particulate Matter (PM_{10})	24 Hour	50 μg/m³	**Nonattainment**	150 μg/m³	Unclassified/Nonattainment[6]
	Annual Arithmetic Mean	20 μg/m³	**Nonattainment**	N/A[7]	N/A[7]
Fine Particulate Matter ($PM_{2.5}$)[8]	24 Hour	No Separate State Standard		35 μg/m³	Unclassified/Attainment
	Annual Arithmetic Mean	12 μg/m³	Attainment	12.0 μg/m³	Unclassified/Attainment
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Unclassified/Attainment
	1 Hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Unclassified/Attainment
Nitrogen Dioxide (NO_2)[9]	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	N/A	0.053 ppm (100 μg/m³)	Unclassified/Attainment
	1 Hour	0.18 ppm (339 μg/m³)	Attainment	100 ppb (188 μg/m³)	N/A
Lead (Pb)[10, 11]	30 day average	1.5 μg/m³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 μg/m³	Unclassified/Attainment
	Rolling 3-month Average	N/A	N/A	0.15 μg/m³	Unclassified/Attainment
Sulfur Dioxide (SO_2)[12]	Annual Arithmetic Mean	N/A	N/A	0.030 ppm (for certain areas)	Unclassified
	24 Hour	0.04 ppm (105 μg/m³)	Attainment	0.14 ppm (for certain areas)	Unclassified
	3 Hour	N/A	N/A	N/A	Unclassified
	1 Hour	0.25 ppm (655 μg/m³)	Attainment	75 ppb (196 μg/m³)	N/A
Visibility-Reducing Particles[13]	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 μg/m3	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)	Attainment		
Vinyl Chloride[10,11]	24 Hour	0.01 ppm (23 μg/m³)	N/A		

μg/m³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM_{10} and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, CARB identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.
2. National standards (other than ozone, particulate matter and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The EPA also may designate an area as *attainment/unclassifiable*, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over the three years, are equal to or less than the standard. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.
6. Mono Basin, Mammoth Lakes, and Owens Valley are designated as Nonattainment. Coso Junction is designated as Moderate – Maintenance, and the rest of the GBUAPCD is designated as Unclassified.
7. The EPA revoked the annual PM_{10} standard in 2006 (effective December 16, 2006).
8. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m³ to 12.0 μg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m³, as was the annual secondary standard of 15 μg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
9. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
10. CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
11. National lead standard, rolling 3-month average: final rule signed October 15, 2008
12. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
13. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board, May 2015, and U.S. Environmental Protection Agency, June 17, 2016.

CALIFORNIA AIR RESOURCES BOARD

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 5.6-3, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMP's also serve as the basis for the preparation of the State Implementation Plan (SIP) for the State of California.

Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment.

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

The GBUAPCD has jurisdiction over the counties of Mono, Alpine, and Inyo. The GBUAPCD is one of 35 air quality management districts that have prepared AQMPs to accomplish a five-percent annual reduction in emissions.

In 1990, the GBUAPCD prepared the *Air Quality Management Plan for the Town of Mammoth Lakes* (1990 AQMP) to address PM_{10} pollution in the region. In May 2014, the GBUAPCD prepared the *Air Quality Maintenance Plan and PM_{10} Redesignation Request for the Town of Mammoth Lakes* (2014 AQMP), as an update to the 1990 AQMP. The 2014 AQMP reviews the background of the 1990 AQMP, the measures implemented as a result of that plan and their effectiveness, and changes to clean air regulations since the adoption of the 1990 AQMP. The 2014 AQMP recommends maintenance measures and requests that the Town of Mammoth Lakes be redesignated as attainment for the federal PM_{10} standard. The redesignation request is based on monitoring data and a modeling analysis, and a maintenance plan that contains requirements to ensure the Federal PM_{10} standard would not be violated in the future.

The measures identified in the 2014 AQMP were incorporated in the *Town of Mammoth Lakes Municipal Code* (Municipal Code) as Chapter 8.30, *Particulate Emissions Regulations*. The measures included within Chapter 8.30 include a vehicle miles traveled (VMT) limit for the town of 179,708, street sweeping measures, and regulations on wood-burning stoves and fireplaces. Three major control measures that were amended by the 2014 AQMP include the following:

- *Section 8.30.040 B*. No new wood burning appliances are allowed to be installed in multi-family developments, consistent with General Plan Policy R.10.3.

- *Section 8.30.080, Mandatory Curtailment*. All wood burning appliances (including EPA certified stoves), except pellet stoves, are subject to the Town's no-burn day program.

- *Section 8.30.100 B*. Proposed development projects and other Town approved activities which affect vehicle trips are evaluated against the VMT limit of 179,708.

TOWN OF MAMMOTH LAKES

Mammoth Lakes General Plan

Town policies regarding air quality are contained in the Resource Management and Conservation Element of the General Plan (adopted August 15, 2007). These goals, policies, and actions in are intended to reduce air pollutant emissions in the Town, and improve the overall air quality for the community. The applicable air quality-related policies include, but are not limited to, the following:

- Protect health of community residents by assuring that the town of Mammoth Lakes remains in compliance with or improves compliance with air quality standards (R.10).

- Support regional air quality improvement efforts (R.10.A).

- Promote land use patterns that reduce number and length of motor vehicle trips, including:

  - Development of in-town workforce housing,
  - Residential and mixed use development adjacent to commercial centers,
  - Mountain portals and transit corridors, and
  - Provision of a mix of support services in employment areas (R.10.B).

- Mitigate impacts on air quality resulting from development through design, participation in Town air pollution reduction programs, and/or other measures that address compliance with adopted air quality standards (R.10.D).

- The Town of Mammoth Lakes will strive to attain and maintain the National Ambient Air Quality Standard (NAAQS) for PM_{10} (R.10.E).

- The Town will continue to require project level environmental reviews (EIR's and Negative Declarations) to address the incremental increase in PM_{10} levels from the project(s) (R.10.E.2).

- In the event that the project level reviews show that the Town is likely to exceed the NAAQS, permits will not be issued until mitigation is developed that demonstrate compliance with the NAAQS (R.10.E.3).

- Reduce air pollutants during construction through implementation of Best Management Practices (BMPs) (R.10.G).

5.6.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

REGIONAL AIR QUALITY

Currently, the GBUAPCD does not have separate daily thresholds for criteria pollutants other than State and Federal standards; refer to Table 5.6-3. However, CEQA allows Lead Agencies to rely on standards or thresholds promulgated by other agencies.

The GBUAPCD was consulted during the course of this analysis to determine the proper methodology to use for analyzing criteria pollutants. Based on guidance from the GBUAPCD, project-related emissions were quantified and compared to the Mojave Desert Air Quality Management District (MDAQMD) numerical thresholds.[1] Projects in the Basin have recently used the numerical standards of the MDAQMD in prior CEQA reviews (e.g., the *Town of Mammoth Lakes Trail System Master Plan EIR*, dated July 2011). Because the air quality and pollutant attainment status in portions of the Mojave Desert Air Basin (MDAB) are similar to those of the Basin, the numerical thresholds set for MDAB by the MDAQMD are considered adequate to serve as significance thresholds for the proposed project. Table 5.6-4, *Regional Thresholds of Significance*, presents the MDAQMD numerical thresholds that would be utilized for analysis of the proposed project.

Table 5.6-4
Regional Thresholds of Significance

Phase	Pollutant (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	137	137	548	137	82	82
Operation	137	137	548	137	82	82
VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns						
Source: Mojave Desert Air Quality Management District, *CEQA and Federal Conformity Guidelines,* February 2009.						

CEQA SIGNIFICANCE CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by Appendix G of the *CEQA Guidelines*, as amended, and used by the Town of Mammoth Lakes in its environmental review process. The Initial Study Checklist includes questions relating to air quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

[1] Telephone conversation with Jan Sudomier from the Great Basin Unified Air Pollution Control District, April 16, 2014. As a follow up, a more recent telephone conversation with was held with Chris Howard, Senior Research and Systems Analyst at the Great Basin Unified Air Pollution Control District, on August 31, 2016 whom confirmed that the Great Basin Unified Air Pollution Control District does not provide emissions standards for criteria pollutants for CEQA purposes.

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-4);

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation (refer to Impact Statements AQ-1 and AQ-2);

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) (refer to Section 5.6.5, *Cumulative Impacts*);

- Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statements AQ-1 and AQ-3); and/or

- Create objectionable odors affecting a substantial number of people (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these significance thresholds and criteria, the project's effects have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

5.6.4 IMPACTS AND MITIGATION MEASURES

SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

AQ-1 SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN AIR POLLUTANT EMISSION IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS.

Impact Analysis: Short-term air quality impacts are predicted to occur during grading and construction operations associated with implementation of the proposed project. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading and building construction; and
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew.

Potential odors could arise from the diesel construction equipment used on-site, as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are

common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Additionally, odors generated during construction activities would be temporary and are not considered to be a significant impact.

Construction activities would include demolition (tree removal), grading, paving, construction of buildings, and painting. Grading activities would include the excavation and transport of approximately 6,500 cubic yards of soil to the United States Forest Service (USFS) pit at Mammoth Yosemite Airport. Construction of the proposed project is anticipated to occur in three phases, with phases 1 and 2 possibly being constructed concurrently, beginning in June 2017 and concluding in February 2023.

Fugitive Dust Emissions

Fugitive dust (PM_{10} and $PM_{2.5}$) from grading and construction is expected to be short-term and would cease following Project completion. Most of this material is composed of inert silicates, which are less harmful to health than the complex organic particulates released from combustion sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. The greatest amount of fugitive dust generated is expected to occur during site grading and excavation. Dust generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular concern is the amount of PM_{10} generated as a part of fugitive dust emissions.

The California Emissions Estimator Model (CalEEMod, version 2016.3.1) was used to calculate PM_{10} and $PM_{2.5}$ fugitive dust emissions as part of the site earthwork activities; refer to Table 5.6-5, *Maximum Daily Construction Emissions*. Maximum particulate matter emissions would occur during the initial stages of construction, when grading activities would occur. Mitigation Measure AQ-1 requires that construction activities comply with GBUAPCD Rule 401 and Rule 402, such that excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures. With adherence to Mitigation Measure AQ-1, the maximum mitigated PM_{10} emissions would range between 0.86 and 6.12 pounds per day (lbs/day), and between 0.70 and 4.33 lbs/day for $PM_{2.5}$. In addition, Mitigation Measures AQ-2 and AQ-3 require adherence to GBUAPCD Rules 200-A, 200-B, and 216-A prior to commencement of construction activities. As such, construction emissions would be below the thresholds of 82 lbs/day for PM_{10} and $PM_{2.5}$, and impacts related to fugitive dust would be reduced to a less than significant level.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. As shown in Table 5.6-5, ROG emissions would be below the applicable thresholds and impacts remain at less than significant levels.

Table 5.6-5
Maximum Daily Construction Emissions

Emissions Source	Daily Pollutant Emissions (lbs/day)[1]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2017 – Phase I						
Unmitigated	35.39	59.92	34.50	0.08	7.25	4.58
Mitigated[2]	35.39	59.92	34.50	0.08	5.12	3.55
2017 – Phase II						
Unmitigated	4.08	38.58	27.23	0.04	5.62	3.62
Mitigated[2]	4.08	38.58	27.23	0.04	3.67	2.64
Total 2017 Mitigated Emissions	**39.47**	**98.50**	**61.73**	**0.12**	**8.79**	**6.19**
Significance Threshold[3]	*137*	*137*	*548*	*137*	*82*	*82*
Is Threshold Exceeded After Mitigation?	***No***	***No***	***No***	***No***	***No***	***No***
2018						
Unmitigated	8.42	15.24	12.43	0.02	1.15	0.96
Mitigated[2]	8.42	15.24	12.43	0.02	1.10	0.95
Significance Threshold[3]	*137*	*137*	*548*	*137*	*82*	*82*
Is Threshold Exceeded After Mitigation?	***No***	***No***	***No***	***No***	***No***	***No***
2022						
Unmitigated	6.76	62.89	54.45	0.10	9.83	6.28
Mitigated[2]	6.76	62.89	54.45	0.10	6.12	4.33
Significance Threshold[3]	*137*	*137*	*548*	*137*	*82*	*82*
Is Threshold Exceeded After Mitigation?	***No***	***No***	***No***	***No***	***No***	***No***
2023						
Unmitigated	9.80	14.86	16.94	0.03	0.90	0.71
Mitigated[2]	9.80	14.57	17.38	0.03	0.86	0.70
Significance Threshold[3]	*137*	*137*	*548*	*137*	*82*	*82*
Is Threshold Exceeded After Mitigation?	***No***	***No***	***No***	***No***	***No***	***No***

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns

Notes:

1. Emissions were calculated using CalEEMod.
2. The reduction/credits for construction emission mitigations are based on mitigation included in CalEEMod. The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads twice daily; limit speeds on unpaved roads to 15 miles per hour; and use CARB certified engines.
3. Regional daily construction thresholds are based on the MDAQMD significance thresholds.

Refer to Appendix 11.5, *Air Quality/Greenhouse Gas Emissions Data*, for assumptions used in this analysis.

Construction Exhaust Emissions

Exhaust emissions would be generated by the operation of vehicles and equipment on the construction site, such as tractors, dozers, backhoes, cranes, and trucks. The majority of construction equipment and vehicles would be diesel powered, which tends to be more efficient than gasoline-powered equipment. Diesel-powered equipment produces lower carbon monoxide and hydrocarbon emissions than gasoline equipment, but produces greater amounts of NO_X, SO_X, and particulates per hour of activity. The transportation of machinery, equipment and materials to and from the project site, as well as construction worker trips, would also generate vehicle emissions during construction. As presented in Table 5.6-5, construction equipment and worker vehicle exhaust emissions would not exceed the emissions thresholds. The NO_X emissions during the periods described above would be below the applicable thresholds. In addition, the project Applicant would be required to apply for a Permit to Construct permit prior to construction, which provides an orderly procedure for the review of new and modified sources of air pollution (Mitigation Measure AQ-2). A less than significant impact would occur in this regard.

Asbestos

Pursuant to guidance issued by the Governor's Office of Planning and Research, State Clearinghouse, lead agencies are encouraged to analyze potential impacts related to naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed.

Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (dated August 2000), the proposed project is not located in an area where NOA is likely to be present. Therefore, impacts would be considered less than significant.

Total Daily Construction Emissions

CalEEMod was utilized to model construction emissions for ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. As indicated in Table 5.6-5, construction emissions would not exceed thresholds. Mitigation Measures AQ-1 through AQ-3 would be required to minimize fugitive dust emissions and ensure

compliance with GBUAPCD Rules. With implementation of Mitigation Measures AQ-1 through AQ-3, construction emissions would be less than significant.

Mitigation Measures:

AQ-1 Prior to approval of the project plans and specifications, the Public Works Director, or designee, shall confirm that the plans and specifications stipulate that, in compliance with GBUAPCD Rule 401, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventive measures, as specified in the GBUAPCD Rules and Regulations. In addition, GBUAPCD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered to prevent excessive amounts of dust;
- On-site vehicles' speed shall be limited to 15 miles per hour (mph);
- All on-site roads shall be paved as soon as feasible or watered periodically or chemically stabilized;
- All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust; watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day;
- If dust is visibly generated that travels beyond the site boundaries, clearing, grading, earth moving or excavation activities that are generating dust shall cease during periods of high winds (i.e., greater than 25 mph averaged over one hour) or during Stage 1 or Stage 2 episodes; and
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.

AQ-2 Under GBUAPCD Rule 200-A and 200B, the Contractor shall apply for a Permit To Construct prior to construction, which provides an orderly procedure for the review of new and modified sources of air pollution.

AQ-3 Under GBUAPCD Rule 216-A (New Source Review Requirement for Determining Impact on Air Quality Secondary Sources), the Contractor shall complete the necessary permitting approvals prior to commencement of construction activities.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

LONG-TERM (OPERATIONAL) AIR EMISSIONS

AQ-2 IMPLEMENTATION OF THE PROPOSED PROJECT WOULD RESULT IN INCREASED IMPACTS PERTAINING TO OPERATIONAL AIR EMISSIONS.

Impact Analysis: Operational emissions generated by both stationary and mobile sources would result from normal daily activities on the project site after occupation (i.e., increased concentrations of O_3, PM_{10}, and CO). Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices, the chilling equipment for the ice rink, the operation of landscape maintenance equipment, and the use of consumer products. Stationary energy emissions would result from energy consumption associated with the proposed project. Mobile emissions would be generated by the motor vehicles traveling to and from the project site. Emissions associated with each of these sources were calculated and are discussed below.

Area Source Emissions

Area source emissions would be generated due to an increased demand for consumer products, architectural coating, and landscaping. As shown in Table 5.6-6, *Long-Term Operational Air Emissions*, unmitigated area source emissions from the proposed project would be nominal (i.e., less than one percent of the applicable threshold).

Table 5.6-6
Long-Term Operational Air Emissions

Emissions Source	Pollutant (pounds/day)[1, 2]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	1.22	0.00	0.02	0.00	0.00	0.00
Energy	0.00	0.04	0.03	0.00	0.00	0.03
Mobile	0.78	2.84	5.80	0.01	0.84	0.24
Total Proposed Emissions	2.00	2.88	5.85	0.01	0.85	0.24
Significance Threshold	*137*	*137*	*548*	*137*	*82*	*82*
Is Threshold Exceeded? (Significant Impact?)	*No*	*No*	*No*	*No*	*No*	*No*

Notes:
1. Based on CalEEMod results, worst-case seasonal emissions for area and mobile emissions have been modeled.
2. Refer to Appendix 11.5, *Air Quality/Greenhouse Gas Emissions Data*, for assumptions used in this analysis.

Energy Source Emissions

Pollutant emissions associated with energy demand (i.e., electricity generation and propane consumption) are classified by the GBUAPCD as regional stationary source emissions. This assumption is based on the supposition that those power plants supplying electricity to the site are utilizing fossil fuels. Electric power generating plants are distributed throughout the region and western United States. Electricity is considered an area source since it is produced at various locations within, as well as outside of the area. The proposed project may install solar and/or

photovoltaic systems on the southern roof of the ice rink. This system would reduce the total amount of electricity taken from the California electrical grid. In accordance with General Plan Policies R.6.A, R.6.B, R.6.C, R.8.F and R.8G, the project would implement the proposed solar and/or photovoltaic systems that would reduce the demand for electricity services, optimize efficient use of energy, and increase the use of renewable energy resources.

The chiller and mechanical equipment associated with the ice rink would be electrical and would not directly generate air emissions. As noted above, energy consumption would result in indirect emissions from power plants throughout the region and western United States. As such, the electrical consumption from the mechanical equipment would not result in direct emissions in the Town or Basin.

The primary use of propane by the proposed land uses would be for combustion to produce space heating, water heating, other miscellaneous heating, or air conditioning, consumer products, and landscaping. Additionally, operations of the ice rink would include the use of a propane powered ice resurfacer. Ice resurfacing is anticipated to occur on an average of two to three times per day and a maximum of seven times per day during a hockey or holiday event. It should be noted that emissions from the propane powered ice resurfacer are not included in Table 5.6-6. According to the U.S. Department of Energy, propane is a clean-burning, high-energy alternative fuel. Therefore, the operation of the ice resurfacer would not cause the project to result in significant emissions of criteria air pollutants.

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source. Project-generated vehicle emissions have been estimated using CalEEMod. This model predicts ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions from motor vehicle traffic associated with new or modified land uses; refer to Appendix 11.5. According to *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis* (Traffic Impact Analysis), the proposed project would generate 210 net new daily trips on a busy winter Saturday. Table 5.6-6, *Long-Term Operational Air Emissions*, presents the anticipated mobile source emissions.

Impact Conclusion

As indicated in Table 5.6-6, the unmitigated operational emissions from the proposed project would remain below the applicable thresholds. In addition, although the project would result in the development of a multi-use community facility on a vacant/park land use, the project would be consistent with the General Plan OS land use designation, and P-QP zoning for the site. Additionally, as discussed in Impact Statement TRA-2, in Section 5.5, *Traffic and Circulation*, the increase in VMT due to the project is minimal at approximately 0.3 percent of existing VMT. As such, the project would not adversely affect the Town's forecast limit on VMT. Therefore, the project would not result in overall growth beyond what is anticipated in the General Plan or the Town's VMT limit. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LOCALIZED EMISSIONS

AQ-3 DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN LOCALIZED EMISSIONS IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS.

Impact Analysis:

Localized Significance Thresholds

Project traffic, during the operational phase of the project, would have the potential to create local area impacts. Carbon monoxide (CO) is a primary pollutant and, unlike ozone, is directly emitted from a variety of sources. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of its impacts upon the local air quality. Comparisons of levels with State and Federal CO standards indicate the severity of the existing concentrations for receptors in the project area.

An impact is potentially significant if a project produces emissions levels that exceed the State or Federal AAQS (refer to Table 5.6-3). Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere; adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create "pockets" of CO, referred to as "hot spots." These pockets have the potential to exceed the State 1-hour standard of 20.0 ppm and/or the 8-hour standard of 9.0 ppm. Note that Federal levels are based on 1- and 8-hour standards of 35.0 and 9.0 ppm, respectively.

In order to identify CO hotspots, the SCAQMD criterion was utilized in the analysis since the GBUAPCD does not currently have a preferred methodology. The SCAQMD recommends performing a CO hotspot analysis when a project increases the volume-to-capacity (V/C) ratio (also called the intersection capacity utilization) by 0.02 (2 percent) for any intersection with an existing level of service (LOS) D or worse. A CO hotspot analysis is also required if an existing intersection has a LOS C and worsens to an LOS D with implementation of a proposed project. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations. Typically, LOS at an intersection producing a hot spot is at LOS D or worse during the peak hour.

Based upon the Traffic Impact Analysis, there are no intersections that meet the criteria for a CO hotspot analysis. As such, CO hot spot modeling was not conducted for the proposed project. It is also noted that a detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide* (1992 CO Plan) for the SCAQMD's *2003 Air Quality Management Plan*. The CO hot spot analysis conducted for the 1992 CO Plan was conducted for four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included

Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the level of service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be level of service (LOS) E at peak morning traffic and LOS F at peak afternoon traffic. Nonetheless, the analysis concluded that there was no violation of CO standards.[2]

According to the Traffic Impact Analysis, the proposed project would result in approximately 210 net new daily trips on a busy winter Saturday. Therefore, the proposed project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, the value studied in the 1992 CO Plan. As a result, this impact would be considered less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CONSISTENCY WITH REGIONAL PLANS

AQ-4 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN.

Impact Analysis: The monitoring data and modeling analysis within the 2014 AQMP determined that with implementation of the control measures from the 1990 AQMP, PM_{10} levels in the Town have declined significantly. The updated emissions estimate in the 2014 AQMP shows 3,385 kg/day PM_{10} in 2012, which is a 20 percent reduction in emissions since 1990 when the AQMP was adopted. This reduction was achieved despite a 72 percent population increase from 4,785 in 1990 to 8,234 in 2010.

The 2014 AQMP also models emissions associated with the estimated 179,708 VMT at General Plan buildout. The VMT estimate is based on a revised traffic model for the community that incorporates additional roadway segments and revises VMT projections based on updated traffic counts and current modeling technologies. The air quality modeling shows that this overall level of traffic would not cause an exceedance of the NAAQS and is suggested as the VMT limit for the 2014 AQMP.

The proposed project consists of constructing a 30,000 square-foot multi-use facility ice rink/ RecZone, and 13,000 square feet of community center facilities. Development associated with the proposed project would be consistent with what is anticipated in the General Plan, and zoning code. Therefore, VMT associated with the project are included in the General Plan buildout VMT estimate that is included in the modeling for the 2014 AQMP.

[2] *1992 Federal Attainment Plan for Carbon Monoxide,* South Coast Air Quality Management District, 1992.

Future development within the Town has been anticipated within the General Plan. In order to address the anticipated increase at future buildout, the General Plan has included several goals and policies to further regulate the anticipated PM_{10} emissions resulting from the increased VMT. Such goals and policies would build upon the regulations set forth within the current Municipal Code, Chapter 8.30, and GBUAPCD Rule 431. As an example of the new goals and policies, the General Plan has included the use of higher density residential and mixed-use development adjacent to commercial centers, mountain portals, and transit corridors, which would reduce the number of vehicle trips, VMT, and encourage alternative modes of transportation.

As the proposed project is anticipated in the General Plan and 2014 AQMP, implementation of the proposed project would not conflict with the 2014 AQMP. Additionally, the project would be required to comply with the applicable General Plan policies, which would further reduce impacts associated with plan consistency to a less than significant level.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.6.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. The following discussions are included per topic area to determine whether a significant cumulative effect would occur.

SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

- **SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS, WOULD RESULT IN INCREASED AIR POLLUTANT EMISSION IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO INCREASED POLLUTANT CONCENTRATIONS.**

Impact Analysis: Of the projects that have been identified within the proposed project study area, there are a number of related projects that have not been built or are currently under construction. Since applicants have no control over the timing or sequencing of the related projects, any quantitative analysis to ascertain the daily construction emissions that assumes multiple, concurrent construction would be speculative.

The GBUAPCD has developed a permitting process prior to the construction of any development within the Basin to ensure that construction activities would not result in exceedances of NAAQS. The GBUAPCD emphasizes the use of control measures during construction activities. As stated in Impact Statement AQ-1, mitigation measures would reduce impacts associated with construction through the application of proper permits and by demonstrating that the appropriate control measures would be utilized during construction activities. With implementation of Mitigation Measures AQ-1 through AQ-3, the project would comply with all applicable GBUAPCD Rules and the project's cumulative contribution would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measures AQ-1 through AQ-3.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

LONG-TERM (OPERATIONAL) AIR EMISSIONS

- **PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS WOULD RESULT IN INCREASED IMPACTS PERTAINING TO OPERATIONAL AIR EMISSIONS.**

Impact Analysis: The GBUAPCD's approach for assessing cumulative impacts related to operations is based on the attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. A significant impact may occur if a project would add a cumulatively considerable contribution of a Federal or State non-attainment pollutant. Because the Basin is currently in nonattainment for O_3 and PM_{10} (maintenance under Federal standards), related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Nonattainment of O_3 in Mammoth Lakes is primarily the result of pollution generated in the San Joaquin Valley, transported by air currents and winds over the Sierra Nevada and is not a condition substantially generated by activities and sources in the Town.

As indicated in Table 5.6-6, project-related operational emissions would be relatively low (i.e., no more than two percent of the threshold) and the project would only generate 210 net new daily vehicle trips. The project-related VMT increase is minimal at approximately 0.3 percent of existing VMT. Project related emissions would not substantially contribute to an exceedance of the ambient air quality standards. The project would not include wood burning devices and PM_{10} emissions would be nominal. Development associated with the proposed project would be consistent with what is anticipated in the General Plan, and zoning code, which anticipates future development within the Town. Emissions associated with the project are included in the General Plan buildout estimate that is included in the modeling for the 2014 AQMP. The 2014 AQMP modeled future planned development in the Town and determined that an exceedance of the NAAQS would not occur. As the project in conjunction with related projects would not impede the attainment of NAAQS, a significant cumulative air quality impact would not occur.

Adherence to AQMP control measures would ensure that the proposed project and related development projects in the Town would alleviate potential impacts related to cumulative conditions on a project-by-project basis. The Town of Mammoth Lakes has incorporated emissions reductions regulations into their Municipal Code (Chapter 8.30). Therefore, the proposed project and related projects would be required to comply with the regulations in the Municipal Code, which would also reduce cumulative impacts. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant.

As discussed above, the proposed project would not result in long-term air quality impacts, as emissions would not exceed applicable operational thresholds. The proposed project would be consistent with what is anticipated in the General Plan, and Zoning Code. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria

pollutant. Therefore, cumulative operational impacts associated with implementation of the proposed project would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.6.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No unavoidable significant impacts related to air quality have been identified following implementation of mitigation measures referenced in this section.

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5.7 Greenhouse Gas Emissions

5.7 GREENHOUSE GAS EMISSIONS

This section evaluates greenhouse gas (GHG) emissions associated with the proposed project and analyzes project compliance with applicable regulations. Consideration of the project's consistency with applicable plans, policies, and regulations, as well as the introduction of new sources of GHGs, is included in this section. Greenhouse gas technical data is included as Appendix 11.5, *Air Quality/Greenhouse Gas Emissions Data*.

5.7.1 EXISTING SETTING

The Town of Mammoth Lakes (Town) is located in the Great Basin Valley Air Basin (Basin), which is bounded by the Sierra Nevada mountain range to the west, the White, Inyo, and Coso ranges to the east, Mono Lake to the north, and Little Lake to the south. The Basin includes Mono County, where the project site is located, as well as Alpine and Inyo Counties.

The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the Basin.

SCOPE OF ANALYSIS FOR CLIMATE CHANGE

The study area for climate change and the analysis of GHG emissions is broad as climate change is influenced by world-wide emissions and their global effects. However, the study area is also limited by the CEQA Guidelines [Section 15064(d)], which directs lead agencies to consider an "indirect physical change" only if that change is a reasonably foreseeable impact which may be caused by the project.

The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities that have grown more than 70 percent between 1970 and 2004. The State of California is leading the nation in managing GHG emissions. Accordingly, the impact analysis for this project relies on guidelines, analyses, policy, and plans for reducing GHG emissions established by the California Air Resources Board (CARB).

GLOBAL CLIMATE CHANGE – GREENHOUSE GASES

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[1] The greenhouse effect traps heat in the troposphere through a three-fold process as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHG in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This

[1] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

"trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide (CO_2). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential for each GHG based on its ability to absorb and re-radiate long wave radiation.

GHGs normally associated with the proposed project include the following:[2]

- *Water Vapor (H_2O)*. Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, it does not contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a Global Warming Potential for water vapor.

- *Carbon Dioxide (CO_2)*. Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, CO_2 emissions from fossil fuel combustion increased by a total of 7.4 percent between 1990 and 2014.[3] Carbon dioxide is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.

- *Methane (CH_4)*. Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The United States' top three methane sources are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, used for space and water heating, steam production, and power generation. The Global Warming Potential of methane is 25.

- *Nitrous Oxide (N_2O)*. Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The Global Warming Potential of nitrous oxide is 298.

- *Hydrofluorocarbons (HFCs)*. HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 12 for HFC-161 to 14,800 for HFC-23.[4]

[2] All Global Warming Potentials are given as 100 year GWP. Unless noted otherwise, all Global Warming Potentials were obtained from the Intergovernmental Panel on Climate Change.

[3] U.S. Environmental Protection Agency, "*Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2014",* April 15, 2016.

[4] Ibid.

- *Perfluorocarbons (PFCs)*. Perfluorocarbons are compounds consisting of carbon and fluorine, and are primarily created as a byproduct of aluminum production and semiconductor manufacturing. Perfluorocarbons are potent GHGs with a Global Warming Potential several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).[5] The Global Warming Potential of PFCs range from 7,390 to 12,200.[6]

- *Sulfur hexafluoride (SF_6)*. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. Sulfur hexafluoride is the most potent GHG that has been evaluated by the IPCC with a Global Warming Potential of 22,800.[7] However, its global warming contribution is not as high as the Global Warming Potential would indicate due to its low mixing ratio compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm], respectively).[8]

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O_3) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- *Hydrochlorofluorocarbons (HCFCs)*. HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.[9]

- *1,1,1 trichloroethane*. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The Global Warming Potential of methyl chloroform is 146 times that of carbon dioxide.[10]

- *Chlorofluorocarbons (CFCs)*. CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the U.S. Environmental Protection Agency's (EPA) Final Rule (57 FR 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with 100-year Global Warming Potentials ranging from 3,800 for CFC 11 to 14,400 for CFC 13.[11]

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[5] U.S. Environmental Protection Agency, *Overview of Greenhouse Gas Emissions*, May 26, 2016, http://www.epa.gov/climatechange/ghgemissions/gases/fgases.html#Trends, accessed on August 3, 2016.

[6] Ibid.

[7] Ibid.

[8] Ibid.

[9] Intergovernmental Panel on Climate Change, "*Climate Change 2007: Working Group I: The Physical Science Basis, 2.10.2, Direct Global Warming Potentials*", 2007, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html, accessed August 3, 2016.

[10] Ibid.

[11] Ibid.

5.7.2 REGULATORY SETTING

FEDERAL

The Federal government is extensively engaged in international climate change activities in areas such as science, mitigation, and environmental monitoring. The EPA actively participates in multilateral and bilateral activities by establishing partnerships and providing leadership and technical expertise. Multilaterally, the United States is a strong supporter of activities under the United Nations Framework Convention on Climate Change (UNFCCC) and the IPCC.

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus around the evidence that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

In December 2007, Congress passed the first increase in corporate average fleet fuel economy (CAFE) standards. The new CAFE standards represent an increase to 35 miles per gallon (mpg) by 2020. In March 2009, the Obama Administration announced that for the 2011 model year, the standard for cars and light trucks will be 27.3 mpg, the standard for cars will be 30.2 mpg; and standard for trucks would be 24.1 mpg. Additionally, in May 2009 President Barack Obama announced plans for a national fuel-economy and GHG emissions standard that would significantly increase mileage requirements for cars and trucks by 2016. The new requirements represent an average standard of 39 mpg for cars and 30 mpg for trucks by 2016.

In September 2009, the EPA finalized a GHG reporting and monitoring system that began on January 1, 2010. In general, this national reporting requirement would provide the EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons (MT) or more of carbon dioxide (CO_2) per year. This publicly available data will allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost-effective emissions reduction strategies. This new program covers approximately 85 percent of the nation's GHG emissions and applies to approximately 10,000 facilities.

In addition to EPA efforts to implement GHG reporting and monitoring systems, the Obama Administration released *The President's Climate Action Plan* that promotes efforts to reduce GHG emissions by deploying clean energy solutions, developing and deploying advanced transportation technologies, and cutting energy waste in homes, businesses, and factories. Additionally, federal agencies are committing to release Climate Change Adaptation Plans, which promote the construction of stronger and safer communities and infrastructure, protect the economy and natural resources, and use sound science to manage climate impacts. The Obama Administration also plans to work with other countries to help lead the way toward reduced GHG emissions.

STATE

Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-13-08. Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy. This will result in consistent guidance from experts on how to address climate change impacts in the State of California.

Executive Order S-14-08. Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-20-04. Executive Order S-20-04, the California Green Building Initiative, (signed into law on December 14, 2004), establishes a goal of reducing energy use in State-owned buildings by 20 percent from a 2003 baseline by 2015. It also encourages the private commercial sector to set the same goal. The initiative places the California Energy Commission (CEC) in charge of developing a building efficiency benchmarking system, commissioning and retro-commissioning (commissioning for existing commercial buildings) guidelines, and developing and refining building energy efficiency standards under Title 24 to meet this goal.

Executive Order S-21-09. Executive Order S-21-09, 33 percent Renewable Energy for California, directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002) which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006) which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Assembly Bill 1493. AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. When fully phased in, the near-term standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards will result in a reduction of about 30 percent.

Assembly Bill 3018. AB 3018 established the Green Collar Jobs Council (GCJC) under the California Workforce Investment Board (CWIB). The GCJC will develop a comprehensive approach to address California's emerging workforce needs associated with the emerging green economy. This bill will ignite the development of job training programs in the clean and green technology sectors.

Senate Bill 97. SB 97, signed in August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA.

OPR published a technical advisory recommending that CEQA lead agencies make a good-faith effort to estimate the quantity of GHG emissions that would be generated by a proposed project. Specifically, based on available information, CEQA lead agencies should estimate the emissions associated with project-related vehicular traffic, energy consumption, water usage, and construction activities to determine whether project-level or cumulative impacts could occur, and should mitigate the impacts where feasible. OPR requested CARB technical staff to recommend a method for setting CEQA thresholds of significance as described in CEQA Guidelines Section 15064.7 that will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

The Natural Resources Agency adopted the CEQA Guidelines Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Guidelines Amendments became effective on March 18, 2010.

Senate Bill 375. SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

Senate Bills 1078 and 107. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Senate Bill 1368. SB 1368 (Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed into law in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required the CEC to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by CPUC and CEC.

Senate Bill 32 (SB 32). Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

CARB Scoping Plan

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve the California GHG reductions required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California would implement to reduce the projected 2020 BAU emissions to 1990 levels, as required by AB 32. These strategies are intended to reduce CO_2eq[12] emissions by 174 million metric tons (MT) This reduction of 42 million MT CO_2eq, or almost ten percent from 2002 to 2004 average emissions, would be required despite the population and economic growth forecasted through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as those expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. When CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32. On February 10, 2014, CARB released the draft proposed first update. On May 22, 2014, CARB approved the First Update to the AB 32 Scoping Plan. The update also defines CARB's climate change priorities for the next five years, and sets the groundwork to each long-term goals set forth in Executive Orders S-3-05 and B-15-2012. Lastly, the update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan, and evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities in water, waste, natural resources, clean energy, transportation, and land use.

LOCAL

Great Basin Unified Air Pollution Control District

The Great Basin Unified Air Pollution Control District (GBUAPCD) has jurisdiction over the counties of Mono, Alpine, and Inyo and is primarily responsible for comprehensive air pollution control in the Basin. However, GBUAPCD lacks the authority to directly regulate factors leading to global climate change or GHG emission issues associated with plans and new development projects throughout the Basin.

[12] Carbon Dioxide Equivalent (CO_2eq) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Town of Mammoth Lakes

TOWN OF MAMMOTH LAKES GENERAL PLAN

The Town does not have any plans, policies, regulations, significance thresholds, or laws addressing climate change at this time. The Resources Management and Conservation Element of the *Town of Mammoth Lakes General Plan 2007* (General Plan) includes goals and policies addressing energy resources, energy conservation, green technology, and air quality. The General Plan states that energy demands and consumption can be reduced through education, energy audits, incentives, and innovative measures. In addition, green building technology, renewable energy resources, and conservation of existing energy sources are encouraged through education, research, cost-benefit analysis, and establishing regulatory framework and implementation standards. The Town also promotes reduction of GHG emissions by supporting the objectives of the U.S. Mayors Climate Protection Agreement, AB 32, and Executive Order S-3-05. The Resources Management and Conservation Element policies that are relevant to the proposed project are as follows:

- Reduce energy demand by promoting energy efficiency in all sectors of the community (R.6.A).
- Encourage energy efficiency in new building and retrofit construction, as well as resource conservation and use of recycled materials (R.6.C).
- Reduce the use of fossil fuels and energy consumption of Town fleet through innovative measures (R.6.D).
- Use green building practices to greatest extent possible in all construction projects (R.7.A).
- Encourage development of housing close to work, commercial services, recreation areas and transit routes to reduce fuel consumption (R.7.B).
- Educate community, both residents and visitors, on economic and environmental benefits of energy efficiency, use of renewable resources and potential cost savings with energy efficient retrofits and remodels (R.8.A).
- Educate building industry professionals on value of energy efficient building construction and use of renewable resource heating and power systems both in new and retrofit construction (R.8.B).
- Research and facilitate cost-benefit analysis for energy and resource conservation in new and existing building systems (R.8.C).
- Encourage use of renewable fuels such as biodiesel (R.8.D).
- Support development of a geothermal heating district for the town including seeking grant-funding sources for geothermal heating projects (R.8.E).
- Encourage building design and orientation for passive solar heating (R.8.F).

- Encourage use of decentralized solar electric power production systems (R.8.G).

- Support the objectives of the U.S. Mayors Climate Protection Agreement, Assembly Bill 32, and California Executive Order S-03-05 and implement actions to reduce Mammoth Lakes' carbon footprint.

Mobility Element

The Mobility Element establishes the goals, policies, actions, and infrastructure necessary to achieve a progressive and complete multimodal transportation system that serves the needs of all users by implementing "feet-first," sustainability, and smart-growth oriented principles. The Mobility Element goals, policies, and actions that are relevant to the proposed project are as follows:

- Emphasize feet first, public transportation second, and car last in planning the community transportation system while still meeting Level of Service standards (M.3).

- Reduce automobile trips by promoting and facilitating:

  - Walking,
  - Bicycling,
  - Local and regional transit,
  - Innovative parking management,
  - Gondolas and trams,
  - Employer-based trip reduction programs,
  - Alternate work schedules,
  - Telecommuting,
  - Ride-share programs,
  - Cross-country skiing and snowshoeing,
  - Encouraging clustered and infill development (M.3.B).

- Reduce automobile trips by promoting land use and transportation strategies such as: implementation of compact pedestrian-oriented development; clustered and infill development; mixed uses and neighborhood-serving commercial mixed use centers (M.3.C).

- Require development to implement Transportation Demand Management (TDM) measures (M.3.E).

- Encourage feet first by providing a linked year-round recreational and commuter trail system that is safe and comprehensive (M.4).

- Improve safety of sidewalks, trails, and streets (M.4.A).

- Provide safe travel for pedestrians to schools and parks (M.4.D).

- Update trail, streetscape and roadway design standards as well as the Circulation, Trail System and General Bikeway Plans to:

  - Establish a system of bicycle routes and pedestrian trails for recreation, commuting and shopping that is comprehensive and safe.

  - Develop a townwide maintenance, grooming and/or snow removal program for sidewalks and trails to provide year-round pedestrian access.

  - Design and construct streetscapes and roadways to reduce long-term maintenance costs in a harsh climate (M.4.D.1).

- Provide a year-round local public transit system that is convenient and efficient (M.5).

- Encourage transit use by requiring development and facility improvements to incorporate features such as shelters, safe routes to transit stops, and year-round access (M.5.B).

- Improve snow and ice management (M.9).

- Increase year-round pedestrian access to sidewalks and transit stops (M.9.B).

Eastern Sierra Energy Initiative

The Eastern Sierra Council of Governments (ESCOG), representing the Town of Mammoth Lakes, Bishop, Inyo County, and Mono County, launched the Eastern Sierra Energy Initiative (ESEI), a multi-agency, local energy partnership between Southern California Edison (SCE) and the Eastern Sierra Council. The initiative will be a rurally oriented partnership covering over 13,000 square miles and serving a total population of about 25,000. ESEI's scope and objective is to reduce energy use and demand by focusing on three key areas: (1) establishing a "culture" of energy efficiency; (2) working closely with SCE to more effectively implement existing programs; and (3) seeking innovative approaches to energy efficiency in our alpine environment.

High Sierra Energy Initiative

On January 18, 2005, the Town Council of Mammoth Lakes passed a resolution supporting an energy partnership between Southern California Edison (SCE) and the Town of Mammoth Lakes. The resolution designates the local nonprofit High Sierra Energy Foundation to implement the High Sierra Energy Initiative (HSEI) mission to "support a commitment to sustainable practices through energy efficiency, and will provide leadership and guidance in promoting, facilitating, and instituting such practices in the community." This partnership is part of $675 million in SCE energy efficiency programs authorized by the California Public Utilities Commission.

5.7.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

At this time, there is no absolute consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. In fact, numerous organizations, both public and private, have released advisories and guidance with

recommendations designed to assist decision-makers in the evaluation of GHG emissions given the current uncertainty regarding when emissions reach the point of significance.

Lead agencies may elect to rely on thresholds of significance recommended or adopted by State or regional agencies with expertise in the field of global climate change (CEQA Guidelines Section 15064.7(c).) CEQA leaves the determination of significance to the reasonable discretion of the lead agency and encourages lead agencies to develop and publish thresholds of significance to use in determining the significance of environmental effects. However, the Town of Mammoth Lakes has not yet established specific quantitative significance thresholds for GHG emissions for development projects.

In January 2008, the California Air Pollution Control Officers Association (CAPCOA) released a white paper, entitled *CEQA and Climate Change*, which examines various threshold approaches available to air districts and lead agencies for determining whether GHG emissions are significant, including a number of "non-zero" thresholds for land use development projects. Based on guidance from the GBUAPCD, project-related emissions were quantified and compared to the CAPCOA numerical thresholds.[13] Projects in the Basin have recently used the numerical thresholds of the CAPCOA in prior CEQA reviews (e.g., the *Inn at the Village Subsequent Environmental Impact Report,* July 2014). Therefore, in the absence of promulgated numeric thresholds, the most conservative (lowest) numerical threshold suggested by CAPCOA, 900 metric tons (MT) CO_2eq/yr, have been utilized as the threshold of significance for the proposed project.

CEQA SIGNIFICANCE CRITERIA

The issues presented in the Initial Study Environmental Checklist (*CEQA Guidelines* Appendix G) have been utilized as thresholds of significance in this Section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact Statement GHG-1); and/or

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact Statement GHG-2).

Based on these significance thresholds and criteria, the project's effects have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

[13] Telephone conversation with Jan Sudomier from the GBUAPCD, September 20, 2016. As the GBUAPCD has not adopted air quality criteria pollutant or GHG significance thresholds, the Mojave Desert Air Quality Management District thresholds are appropriate for criteria pollutants and the CAPCOA 900 MTCO_2eq/yr threshold is appropriate for GHG emissions.

5.7.4 IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS

GHG-1 GREENHOUSE GAS EMISSIONS GENERATED BY THE PROJECT COULD HAVE A SIGNIFICANT IMPACT ON GLOBAL CLIMATE CHANGE.

Impact Analysis:

Direct Project Related Sources of Greenhouse Gases

Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources. Table 5.7-1, *Project Related Greenhouse Gas Emissions*, presents the estimated CO_2, N_2O, and CH_4 emissions.

Table 5.7-1
Project Related Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	
Direct Emissions						
• Construction (amortized over 30 years)	19.69	0.01	0.00	0.00	0.00	19.70
• Mobile	136.94	0.01	0.25	0.00	0.00	137.20
Total Direct Emissions[3]	***156.63***	***0.02***	***0.25***	***0.00***	***0.00***	***156.90***
Indirect Emissions						
• Energy	127.71	0.00	0.00	0.00	0.15	127.86
• Solid Waste	49.75	2.94	73.50	0.00	0.00	126.19
• Water Demand	11.87	0.14	3.50	0.00	0.00	15.51
Total Indirect Emissions[3]	***186.24***	***3.08***	***77.00***	***0.00***	***0.00***	***269.56***
Total Project-Related Emissions[3]	***426.46***					

Notes:
1. Emissions calculated using CalEEMod computer model.
2. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/cleanenergy/energy-resources/calculator.html, accessed August 2016.
3. Totals may be slightly off due to rounding.

Refer to Appendix 11.5, *Air Quality/Greenhouse Gas Emissions Data*, for detailed model input/output data.

The California Emissions Estimator Model (CalEEMod, version 2016.3.1) was used to calculate mobile source, area source, and construction GHG emissions. Operational GHG estimations are based on energy emissions from natural gas usage, electricity consumption, water demand, wastewater generation, solid waste generation, and automobile emissions. CalEEMod relies upon construction phasing and project specific land use data to calculate emissions; refer to Appendix 11.5.

GHGs associated with mobile sources would be 137.20 $MTCO_2eq/yr$. GHG emissions from construction would result in 19.70 $MTCO_2eq$ for the development of the community multi-use facilities. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[14]

Indirect Project Related Sources of Greenhouse Gases

Energy Consumption. Energy Consumption emissions were calculated using the CalEEMod model and project-specific land use data. Electricity would be provided to the project site via Southern California Edison. The project would indirectly result in 127.86 $MTCO_2eq/year$ due to energy consumption.

Solid Waste. Solid waste associated with operations of the proposed project would result in 126.19 $MTCO_2eq/year$.

Water Demand. The Mammoth Community Water District (MCWD) would be the main water supply provider to the proposed project. The project's water supply would be provided by local surface water, groundwater, and recycled water sources. Emissions from indirect energy impacts due to water supply would result in 15.51 $MTCO_2eq/year$.

Project Design Features

The project may include solar panels on-site. Photovoltaic/solar panels may be positioned on the roof of the ice rink/RecZone, or other locations on the project site. The use of photovoltaic/solar panels would provide the project a renewable source of energy, and reduce electricity consumption from the local grid. GHG emissions from energy consumption would also be reduced as a result of solar installation. As such, the energy consumption GHG emissions shown in Table 5.7-1 would be further reduced if the project includes the installation of photovoltaic/solar panels.

Conclusion

As shown in Table 5.7-1, project-related emissions would be 426.46 $MTCO_2eq/yr$, which is below the 900 $MTCO_2eq/yr$ threshold. Therefore, the proposed project would result in a less than significant impact with regards to GHG emissions.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CONSISTENCY WITH APPLICABLE GHG PLANS, POLICIES, OR REGULATIONS

GHG-2 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH AN APPLICABLE GREENHOUSE GAS REDUCTION PLAN, POLICY, OR REGULATION.

[14] The project lifetime is based on the standard 30 year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13,* August 26, 2009).

Impact Analysis: The Town does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. However, the Mobility Element of the General Plan establishes goals, policies, actions, and infrastructure to achieve a progressive and comprehensive multimodal transportation system through implementation of "feet-first" sustainability, and smart-growth oriented principles. In addition, the Town is involved in the Eastern Sierra Energy Initiative (ESEI), created in partnership with SCE and the Eastern Sierra Council, represented by additional jurisdictions including Bishop, Inyo County, and Mono County. ESEI's scope and objective is to reduce energy use and demand by focusing on establishing a "culture" of energy efficiency, working closely with SCE to more effectively implement existing programs, and seeking innovative approaches to energy efficiency in our alpine environment. The Town implemented the High Sierra Energy Initiative (HSEI), in partnership with SCE to support a commitment to sustainable practices through energy efficiency, and will provide leadership and guidance in promoting, facilitating, and instituting such practices in the community.

As concluded in Impact Statement GHG-1, the proposed project would not generate a significant amount of GHGs in an unmitigated condition. GHG emissions would be further reduced with implementation of solar panels (if included in final project design plans). The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts are less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.7.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. The following discussions are included per topic area to determine whether a significant cumulative effect would occur.

GREENHOUSE GAS EMISSIONS

- **GREENHOUSE GAS EMISSIONS GENERATED BY THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD HAVE A SIGNIFICANT IMPACT ON GLOBAL CLIMATE CHANGE.**

Impact Analysis: It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.[15] GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.[16] The additive effect of project-related GHGs would not result in a reasonably foreseeable cumulatively

[15] California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act,* 2008.

[16] Ibid.

considerable contribution to global climate change. In addition, the proposed project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As shown in Table 5.7-1, the project would not exceed applicable GHG emissions thresholds. As such, the project would not impede progress toward the reduction targets of AB 32 in 2020 and the project's cumulative contribution of GHG emissions in 2020 and post-2020 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.7.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No unavoidable significant impacts related to GHG emissions have been identified in this section.

5.8 Noise

5.8 NOISE

The purpose of this section is to evaluate noise source impacts on-site and to surrounding land uses as a result of implementation of the proposed project. This section evaluates short-term construction-related impacts, as well as future buildout conditions. Mitigation measures are also recommended to avoid or lessen the project's noise impacts. Information in this section is based on the *Town of Mammoth Lakes General Plan 2007* (General Plan) and the *Town of Mammoth Lakes Municipal Code* (Municipal Code). For the purposes of mobile source noise modeling and contour distribution, traffic information contained in the *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, prepared by LSC Transportation Consultants, dated July 29, 2016 (refer to Appendix 11.4, *Traffic Impact Analysis*) was used. Noise measurement and traffic noise modeling data can be found in Appendix 11.6, *Noise Data*.

5.8.1 EXISTING SETTING

NOISE SCALES AND DEFINITIONS

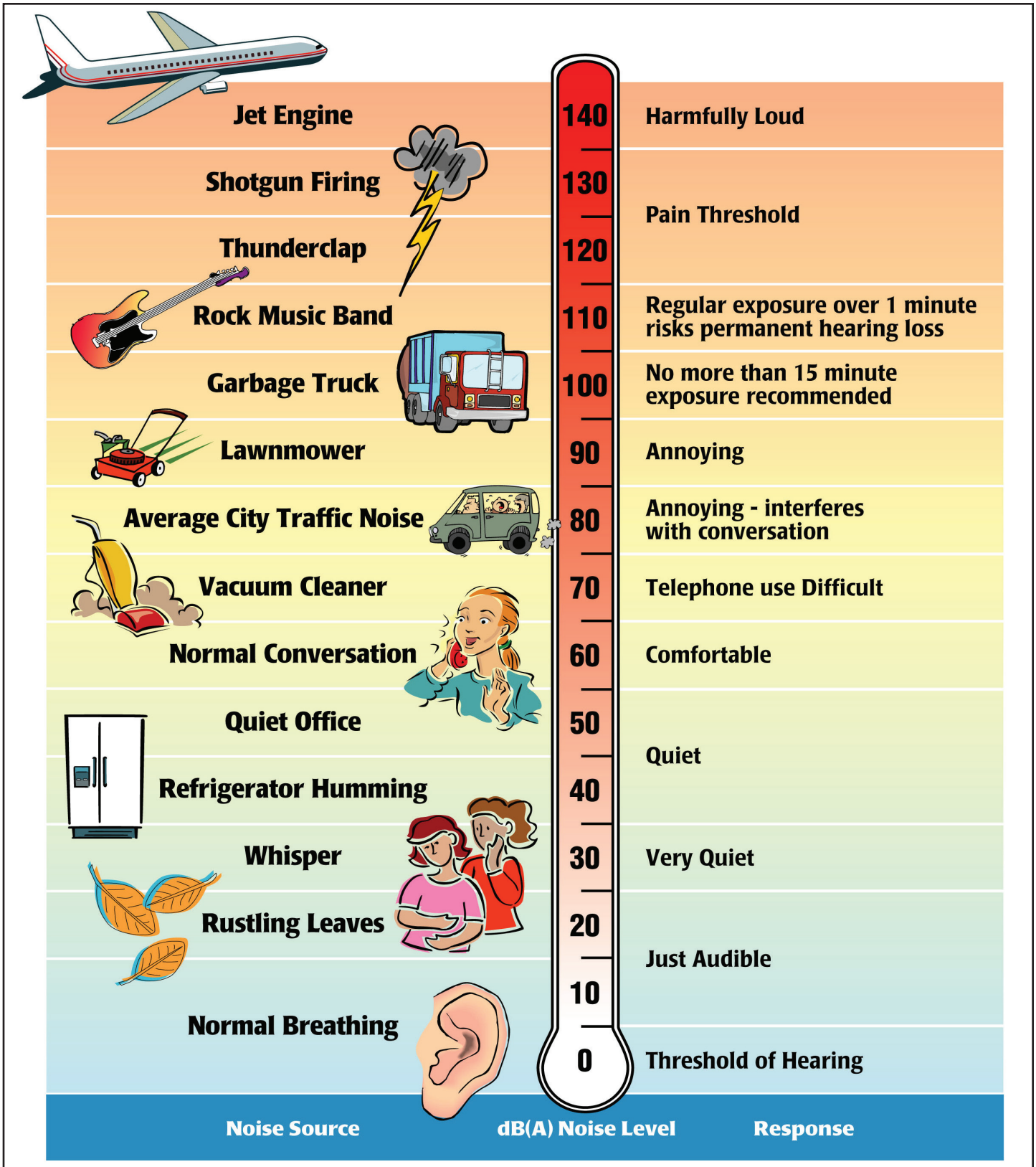
Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Exhibit 5.8-1, *Sound Levels and Human Response*.

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time; refer to Table 5.8-1, *Noise Descriptors*.



Source: Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA/ONAC 550/9-74-004), March 1974.

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ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Sound Levels and Human Response

Exhibit 5.8-1

Table 5.8-1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.

Source: Cyril M. Harris, *Handbook of Noise Control*, dated 1979.

HEALTH EFFECTS OF NOISE

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. However, many factors influence people's response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence people's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from "not annoyed" to "highly annoyed."

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-Induced Hearing Loss;
- Interference with Communication;
- Effects of Noise on Sleep;
- Effects on Performance and Behavior;
- Extra-Auditory Health Effects; and
- Annoyance.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community is highly annoyed. When levels exceed 65 dBA CNEL, that percentage rises to 15 percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

GROUND-BORNE VIBRATION

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak or vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response. Typically, ground-borne vibration, generated by man-made activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source.

Both construction and operation of development projects can generate ground-borne vibration. In general, demolition of structures preceding construction generates the highest vibrations. Construction equipment such as vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible vibration during construction activities. Heavy trucks can also generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions.

SENSITIVE RECEPTORS

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack thereof, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. Sensitive uses within the immediate project area include residential uses to the west and north. Additional existing sensitive receptors located in the project vicinity include hotels, motels, schools, hospitals, libraries, parks, and places of worship; refer to Table 5.8-2, *Sensitive Receptors*.

AMBIENT NOISE MEASUREMENTS

In order to quantify existing ambient noise levels in the project area, Michael Baker International conducted noise measurements on January 12-13, 2016; refer to Exhibit 5.8-2, *Noise Measurement Locations,* and Table 5.8-3, *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. Short-term measurements were taken at each site between 1:54 p.m. and 7:48 p.m. on January 12, 2016. A long term measurement was taken starting on January 12, 2016 at 2:49 p.m. to January 13, 2016 at 11:19 a.m. Meteorological conditions were clear skies, cold temperatures, with light wind speeds (approximately 0 to 5 miles per hour), and low humidity.

Table 5.8-2
Sensitive Receptors

Type	Name	Distance from Project Site (feet)	Orientation from Project Site	Location/Description
Residential	Residential Uses	Adjoining	North	Chateau Blanc Condominiums, 3199 Chateau Rd.
		75	Southwest	Mammoth Creek Condominiums, 96 Meadow Lane
		Adjoining	West	La Vista Blanc Condominiums, 122 Meadow Lane
		Adjoining	Northwest	Chateau De Montagne Condominiums, 3311 Chateau Road
		390	West	Sunrise Condominiums, 50 Meadow Lane
Hotels/ Motels	Sierra Nevada Resort	2,305	North	164 Old Mammoth Road
	Mammoth Creek Inn	90	Northeast	663 Old Mammoth Road
	Snowcreek Resort	2,830	Southwest	1254 Old Mammoth Road
Schools	Mammoth High School	1,785	Northeast	365 Sierra Park Road
	Mammoth Middle School	2,170	Northeast	1600 Meridian Boulevard
	Mammoth Elementary School	2,775	Northeast	1500 Meridian Boulevard
Places of Worship	LightHouse Church	700	North	501 Old Mammoth Road
	The Church of Jesus Christ of Latter-day Saints	1,570	Northwest	2174 Meridian Blvd
	Mammoth Lakes Lutheran Church	1,465	Northeast	379 Old Mammoth Road
	Kingdom Hall of Jehovah's Witnesses	2.040	Northeast	181 Sierra Manor Road
Hospitals	Mammoth Hospital	2,455	Northeast	85 Sierra Park Road
Libraries	Mammoth Lakes Branch Library	1,500	Northeast	400 Sierra Park Road
Recreation/ Parks	Sierra Star Golf Course	1,440	Northwest	2001 Sierra Star Parkway
	Town Loop trail	Adjoining	South/East	North of Old Mammoth Road
	Snowcreek Golf Course	800	Southwest	2 Fairway Drive

Note:
1. Distances are measured from the exterior project boundary to the property boundaries of other uses only and not from individual construction projects/areas within the interior of the project site.

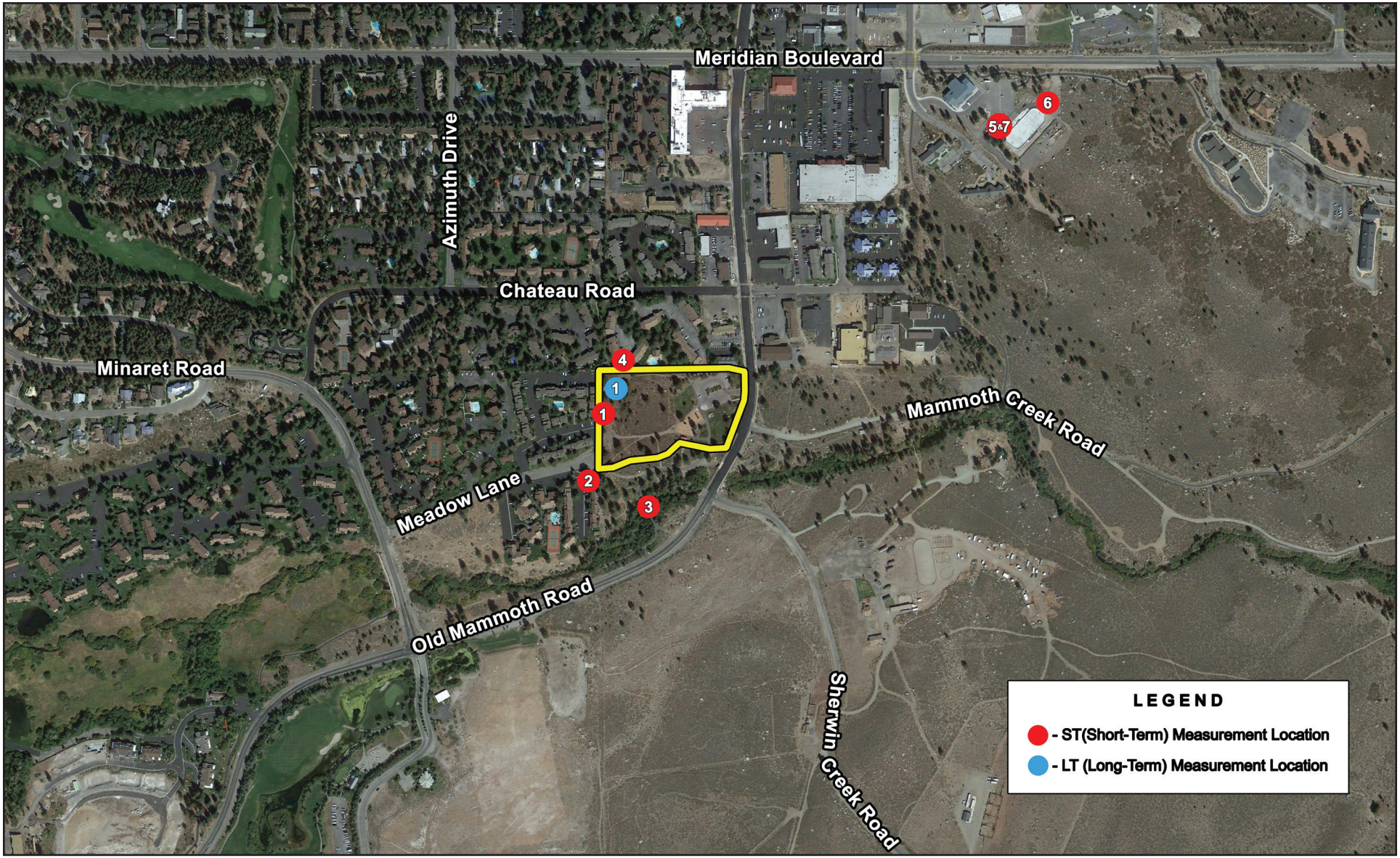
Source: Google Earth, 2016.

Table 5.8-3
Noise Measurements

Measurement Location Number	Location[1]	Leq (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
ST-1	Mammoth Creek Park West, just east of La Vista Blanc Condominiums	45.3	27.4	69.5	64.6	1:54 p.m.
ST-2	Mammoth Creek Park West, just east of Mammoth Creek Condominiums	40.2	35.4	47.7	63.8	2:07 p.m.
ST-3	Mammoth Creek Park West, just north of the Mammoth Creek pedestrian bridge	48.2	45.0	61.9	67.5	2:21 p.m.
ST-4	Chateau Blanc Condominiums, just north of Mammoth Creek Park West	40.9	34.4	59.1	69.8	2:42 p.m.
ST-5	Existing Skate Rink, adjacent to audience stands (4 recreational ice skaters)	55.3	45.4	73.2	87.7	3:43 p.m.
ST-6	Adjacent to chiller units and equipment storage room (10 feet from chiller)	75.2	73.0	78.1	95.5	3:46 p.m.
ST-7	Existing skate rink during a hockey practice game (league play)	69.6	50.1	99.4	104.3	7:48 p.m.
LT-1	Mammoth Creek Park West, just east of La Vista Blanc Condominiums (long-term measurement site)	55.1	15.7	80.1	102.9	2:49 p.m. - 11:19 a.m.

Notes:
1. Noise measurements in residential areas were selected to determine the ambient noise levels surrounding the project site. As such, measurements were taken along the north, western, and southwestern property boundaries.

Source: Michael Baker International, January 12-13, 2016.



Source: Goolge Earth, 2016.
- Project Site

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MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Noise Measurement Locations

Exhibit 5.8-2

MOBILE SOURCES

In order to assess the potential for mobile source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the project area. The existing roadway noise levels in the vicinity of the project site were projected. Noise models were run using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. These parameters determine the projected impact of vehicular traffic noise and include the roadway cross-section (such as the number of lanes), roadway width, average daily traffic (ADT), vehicle travel speed, percentages of auto and truck traffic, roadway grade, angle-of-view, and site conditions ("hard" or "soft"). The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadway and adjacent land uses. Noise projections are based on modeled vehicular traffic as derived from the project's *Traffic Impact Analysis*.

A 30- to 50-mile per hour (mph) average vehicle speed was assumed for existing conditions based on empirical observations and posted maximum speeds along the adjacent roadways. Existing modeled traffic noise levels can be found in Table 5.8-4, *Existing Traffic Noise Levels*. As shown in Table 5.8-4, noise within the area from mobile noise ranges from 51.2 dBA to 65.1 dBA.

Table 5.8-4
Existing Traffic Noise Levels

Roadway Segment	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Old Mammoth Road					
North of Meridian Boulevard	10,229	58.8	88	28	9
Between Chateau Road and Meridian Boulevard	9,635	58.5	83	26	8
South of Project Driveway	5,968	56.4	51	16	5
Meridian Boulevard					
West of Old Mammoth Road	16,239	65.1	381	120	38
East of Old Mammoth Road	14,649	64.7	343	109	34
Chateau Road					
West of Old Mammoth Road	1,707	51.2	15	5	1

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Noise modeling is based upon traffic data within the *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis,* prepared LSC Transportation Consultants, July 29, 2016.

STATIONARY NOISE SOURCES

The project area consists of residential, institutional, commercial, recreational, and office uses served by a grid system of arterial, commuter, secondary, and local roadways. The primary sources of stationary noise in the project vicinity are urban-related activities (e.g., parking areas, conversations, and commercial areas). The noise associated with these sources may represent a single-event or a continuous occurrence.

5.8.2 REGULATORY SETTING

This section summarizes the laws, ordinances, regulations, and standards that are applicable to the project. Regulatory requirements related to environmental noise are typically promulgated at the local level. However, Federal and State agencies provide standards and guidelines to the local jurisdictions.

STATE OF CALIFORNIA GUIDELINES

California Environmental Quality Act

CEQA was enacted in 1970 and requires that all known environmental effects of a project be analyzed, including environmental noise impacts. Under CEQA, a project has a potentially significant impact if the project exposes people to noise levels in excess of standards established in the local general plan or noise ordinance. Additionally, under CEQA, a project has a potentially significant impact if the project creates a substantial increase in the ambient noise levels in the project vicinity above levels existing without the project. If a project has a potentially significant impact, mitigation measures must be considered. If mitigation measures to reduce the impact to less than significant levels are not feasible due to economic, social, environmental, legal, or other conditions, the most feasible mitigation measures must be considered.

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county, town, and city adopt a noise element as part of their comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services, as shown in Table 5.8-5, *Land Use Compatibility for Community Noise Environments*. The guidelines rank noise land use compatibility in terms of "normally acceptable", "conditionally acceptable", "normally unacceptable", and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Table 5.8-5
Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (Ldn or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 - 70	70-75	75-85
Residential - Multiple Family	50 – 65	60 - 70	70 – 75	70 - 85
Transient Lodging - Motel, Hotels	50 – 65	60 - 70	70 – 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 - 70	70 – 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 - 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 - 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 - 85
Office Buildings, Business Commercial and Professional	50 – 70	67.5 - 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 - 80	75 – 85	NA

NA = Not Applicable; Ldn = Day/Night Average; CNEL = community noise equivalent level; dBA = A-weighted decibels

Notes:

Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable - New Construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable – New construction or development should generally not be undertaken.

Source: Office of Planning and Research, California, *General Plan Guidelines*, October 2003.

TOWN OF MAMMOTH LAKES

Municipal Code

Title 8.0 (Health and Safety) of the Municipal Code covers all noise standards. Chapter 8.16 (Noise Regulation) of the Municipal Code sets forth all noise regulations controlling unnecessary, excessive and annoying noise and vibration in the Town. As outlined in Chapter 8.16 and as indicated in Table 5.8-6, *Exterior Noise Limits*, maximum exterior noise levels are based on land use. Although there is a slight variation between the exterior noise standards in the Municipal Code and the General Plan's Noise Element, the Town defers to the standards noted in the Municipal Code. The Municipal Code standards are more recent and remain the standard until the Town can update the Noise Element to be consistent.

Table 5.8-6
Exterior Noise Limits

Receiving Land Use Category	Time Period	Rural/Suburban	Suburban	Urban
One and Two Family Residential	10 p.m. – 7 a.m.	40	45	50
	7 a.m. – 10 p.m.	50	55	60
Multi-Family Dwelling Residential	10 p.m. – 7 a.m.	45	50	55
	7 a.m. – 10 p.m.	50	55	60
Limited Commercial Some Multiple Dwellings	10 p.m. – 7 a.m.	55		
	7 a.m. – 10 p.m.	60		
Commercial	10 p.m. – 7 a.m.	60		
	7 a.m. – 10 p.m.	65		
Light Industrial	Anytime	70		
Heavy Industrial	Anytime	75		

Notes:
1. Levels are not to be exceeded more than thirty minutes in any hour.
2. The classification of different areas of the community in terms of environmental noise zones shall be determined by the noise control officer, based upon assessment of community noise survey data. Additional area classifications should be used as appropriate to reflect both lower and higher existing ambient levels than those shown. Industrial noise limits are intended primarily for use at the boundary of industrial zones rather than for noise reduction within the zone.

Source: Town of Mammoth Lakes, *Municipal Code*.

The following is taken from the Municipal Code*:*

Section 8.16.070 Exterior noise limits

A. The noise standards for the various categories of land use identified by the noise control officer as presented in Table 1 (refer to Table 5.8-6) *shall, unless otherwise specifically indicated, apply to all such property within a designated zone.*

B. No person shall operate or cause to be operated any source of sound at any location within the town or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property to exceed:

1. The noise standard for that land use as in Table 1(refer to Table 5.8-6) *for a cumulative period of more than thirty minutes in any hour; or*

2. The noise standard plus five dB for a cumulative period of more than fifteen minutes in any hour; or

3. The noise standard plus ten dB for a cumulative period of more than five minutes in any hour; or

4. The noise standard plus fifteen dB for a cumulative period of more than one minute in any hour; or

5. The noise standard plus twenty dB or the maximum measured ambient level, for any period of time.

C. If the measured ambient level differs from that permissible within any of the first four noise limit categories above the allowable noise exposure standard shall be adjusted in five dB increments in each category as appropriate to encompass or reflect the ambient noise level.

D. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

E. If the measurement location is on a boundary between two different zones, the noise level applicable to the lower noise zone plus five dB, shall apply.

F. If possible, the ambient noise shall be measured at the same location along the property line utilized in subsection B of this section with the alleged offending noise source inoperative. If for any reason the alleged offending noise source cannot be shut down, the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance such that the noise from the source is at least ten dB below the ambient in order that only the ambient level is measured. If the difference between the ambient and the noise source is five to ten dB, then the level the ambient itself can be reasonably determined by subtracting a one decibel correction to account for the contribution of the source.

G. In the event the alleged offensive noise, as judged by the noise control officer, contains a steady, audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering or riveting, or contains music or speech conveying informational content, the standard limits set forth in Table 1 (refer to Table 5.8-6) *shall be reduced by five dB.*

Additionally, the Code states the following regarding applicable interior noise standards:

Section 8.16.080 Interior noise standards

B. No person shall operate, or cause to be operated within a dwelling unit, any source of sound or allow the creation of any noise which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed:

1. The noise standard as specified in Table 2 (refer to Table 5.8-7, *Interior Noise Limits*) *for a cumulative period of more than five (5) minutes in any hour; or*

Table 5.8-7
Interior Noise Limits

Noise Zone	Type of Land Use	Time Interval	Allowable Interior Noise Level
All	Multifamily Residential	10 p.m. – 7 a.m.	35
		7 a.m. – 10 p.m.	45

Source: Town of Mammoth Lakes, *Municipal Code*.

2. The noise standard plus five decibels (5 dB) for a cumulative period of more than one minute in any hour; or

3. *The noise standard plus ten decibels (10 dB) or the maximum measured ambient, for any period of time.*

C. *If the measured ambient level differs from that permissible within any of the noise limit categories above, the allowable noise exposure standard shall be adjusted in five decibel (5 dB) increments in each category as appropriate to reflect the ambient noise level.*

D. *In the event the alleged offensive noise, as judged by the noise control officer, contains a steady, audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering or riveting, or contains music or speech conveying informational content, the standard limits set forth in Table 2 shall be reduced by five dB.*

In addition to interior and exterior noise standards, the Town provides regulations for construction activities and other types of noises in Section 8.16.090, *Prohibited Acts*, of the Town's Municipal Code. The following noise regulations were taken for Section 8.16.090 for regulations relevant to the proposed project:

5. *Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects between the hours of ten p.m. and seven a.m. in such a manner as to cause a noise disturbance across a residential real property line or at any time to violate the provisions of this section.*

6. *Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work is subject to the hours of work permitted by this code, except for emergency work of public service agencies.*

   a. *At residential properties:*

      i. *Mobile equipment: Maximum noise levels for nonscheduled, intermittent, short-term operation (less than ten days) of mobile equipment*; refer to Table 5.8-8, *Maximum Noise Levels for Short-Term Mobile Equipment Noise*.

Table 5.8-8
Maximum Noise Levels for Short-Term Mobile Equipment Noise

Acceptable Hours Operation	Type I Areas Single-Family Residential	Type II Areas Multi-Family Residential	Type III Areas Semi-Residential Commercial
Daily, except Sundays and legal holidays 7 a.m. to 8 p.m.	75 dBA	80 dBA	85 dBA
Daily, 8 p.m. to 7 a.m. and all day Sundays and legal holidays	60 dBA	65 dBA	70 dBA

Source: Town of Mammoth Lakes, *Municipal Code.*

ii. Stationary equipment: Maximum noise levels for repetitively scheduled and relatively long-term operation (periods of ten days or more) of stationary equipment; refer to Table 5.8-9, *Maximum Noise Levels for Long-Term Stationary Equipment Noise*.

Table 5.8-9
Maximum Noise Levels for Long-Term Stationary Equipment Noise

Acceptable Hours Operation	Type I Areas Single-Family Residential	Type II Areas Multi-Family/Residential	Type III Areas Semi-Residential/ Commercial
Daily, except Sundays and legal holidays 7 a.m. to 8 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8 p.m. to 7 a.m. and all day Sundays and legal holidays	50 dBA	55 dBA	60 dBA
Source: Town of Mammoth Lakes, *Municipal Code.*			

General Plan

Goal C.6 in the 2007 General Plan recognizes that community character would be enhance by minimizing noise. Policies and actions that would implement this goal include the following:

- Policy C.6.A. Minimize community exposure to noise by ensuring compatible land uses around noise sources.

- Policy C.6.B. Allow development only if consistent with the Noise Element and the policies of this Element. Measure noise use for establishing compatibility in dBA CNEL and based on worst-case noise levels, either existing or future, with future noise levels to be predicted based on projected 2025 levels.

- Policy C.6.C. Development of noise-sensitive land uses shall not be permitted in areas where the noise level from existing stationary noise sources exceeds the noise level standards described in the Noise Element.

- Policy C.6.D. Require development to mitigate exterior noise to "normally acceptable" levels in outdoor areas.

  - Action C.6.D.1. Assess existing sources of outdoor noise and develop criteria and standards for outdoor noise.

- Policy C.6.E. Address noise issues through the planning and permitting process.

- Policy C.6.F. Require mitigation of all significant noise impacts as a condition of project approval.

- Policy C.6.G. Require preparation of a noise analysis or acoustical study, which is to include recommendations for mitigation, for all proposed projects that may result in potentially significant noise impacts.

  - Action C.6.G.1. Adopt significance thresholds to be used to assess noise impacts for projects reviewed under the CEQA process, and develop a list of acceptable mitigations that might be applied to mitigate noise impacts to acceptable levels, including specific guidelines for their implementation.

  - Action C.6.G.2. Adopt criteria and location maps that specify the locations and circumstances under which a noise analysis or acoustical study will need to be prepared for a proposed project. Develop guidelines for conducting such studies.

Noise policies are also provided in the Town's 1997 Noise Element. It should be noted that the Noise Element was not updated in the Town's 2007 General Plan.

Prevention of Adverse Noise Impacts due to Transportation Noise Sources:

- Policy 4.2.1 New development of noise-sensitive land uses shall not be permitted in areas exposed to existing or projected future levels of noise from transportation noise sources which exceed 60 dB L_{dn} outdoor activity areas or 45 dB L_{dn} in interior spaces.

- Policy 4.2.2 Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed 60 dB L_{dn} within outdoor activity areas and 45 dB L_{dn} within interior spaces of existing noise sensitive land uses.

Prevention of Adverse Noise Impacts due to Stationary Noise Sources:

- Policy 4.2.3 New development of noise-sensitive land uses shall not be permitted where the noise level from existing stationary noise sources exceeds the noise level standards of Table VII (refer to Table 5.8-10, *Maximum Allowable Noise Exposure for Stationary Noise Sources*).

Table 5.8-10
Maximum Allowable Noise Exposure for Stationary Noise Sources

Level	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Level, dB[1]	50	45
Maximum Level, dB[1]	70	65

Note:
1. As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

- Policy 4.2.4 Noise created by proposed stationary noise sources or existing stationary noise sources which undergo modifications that may increase noise levels shall be mitigated so as not to exceed the noise level standards of Table VII (refer to Table 5.8-10).

Control of Existing Noise Nuisances:

- Policy 4.2.5 The provisions of the existing noise ordinance of the Town of Mammoth Lakes (Chapter 8.16 of the Municipal Code) should be consistent with the goals and policies of the Noise Element, and be appropriate for the specific needs of the Town.

5.8.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G, of the *CEQA Guidelines* contains analysis guidelines related to the assessment of noise impacts. These guidelines have been utilized as thresholds of significance for this analysis. As stated in Appendix G, a project would create a significant environmental impact if it would:

- Expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (refer to Impact Statement N-1);

- Expose persons to or generate excessive ground borne vibration or ground borne noise levels (refer to Impact Statement N-2);

- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Impact Statements N-3 and N-4);

- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Impact Statement N-1);

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels (refer to Section 8.0, *Effects Found Not To Be Significant*); and/or

- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

NOISE IMPACT CRITERIA

Significance of Changes in Traffic Noise Levels

An off-site traffic noise impact typically occurs when there is a discernable increase in traffic and the resulting noise level exceeds an established noise standard. In community noise considerations,

changes in noise levels greater than 3 dB are often identified as substantial, while changes less than 1 dB will not be discernible to local residents. A 5 dB change is generally recognized as a clearly discernable difference.

As traffic noise levels at sensitive uses likely approach or exceed the 65 CNEL standard, a 3.0 dB increase as a result of the project is used as the increase threshold for the project. Thus, the project would result in a significant noise impact if a permanent increase in ambient noise levels of 3.0 dB occurs upon project implementation and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Significance of Changes in Cumulative Traffic Noise Levels

The project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to the "existing" conditions. This comparison accounts for the traffic noise increase from the project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

- *Combined Effects:* The cumulative with project noise level ("Future With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

- *Incremental Effects*: The "Future With Project" causes a 1.0 dBA increase in noise over the "Future No Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Significance of Changes in Exterior Noise Levels

The project would normally have a significant noise impact if it would:

- Exceed the stationary source noise criteria for the Town of Mammoth Lakes as identified in Table 5.8-6.

5.8.4 IMPACTS AND MITIGATION MEASURES

SHORT-TERM CONSTRUCTION NOISE IMPACTS

N-1 GRADING AND CONSTRUCTION WITHIN THE AREA COULD RESULT IN SIGNIFICANT TEMPORARY NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS.

Impact Analysis: Construction activities associated with the project would generate perceptible noise levels during the demolition, grading, paving, and building construction phases. Proposed access to the site for the removal of excavated soils and delivery of heavy equipment would primarily occur via Old Mammoth Road in the eastern portion of the project site as well as Meadow Lane to the west of the project site. High groundborne noise levels and other miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, scrapers, and other heavy-duty construction equipment. Table 5.8-11, *Maximum Noise Levels Generated by Construction Equipment*, indicates the anticipated noise levels of construction equipment. The average noise levels presented in Table 5.8-11 are based on the quantity, type, and Acoustical Use Factor for each type of equipment that is anticipated to be used.

Table 5.8-11
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1] (percent)	L_{max} at 50 Feet (dBA)
Crane	16	81
Dozer	40	82
Excavator	40	81
Generator	50	81
Grader	40	85
Other Equipment (greater than five horse power)	50	85
Paver	50	77
Pile Driver (impact)	20	101
Pile Driver (sonic)	20	96
Roller	20	80
Tractor	40	84
Truck	40	80
Welder	40	73

Note:
1. Acoustical use factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), January 2006.

Project grading and site preparation would require up to 6,500 cubic yards of excavation and export. The primary construction equipment noise sources used during construction would be during earthwork activities (use of graders, excavators, dozers), and building construction (use of forklifts, tractors/loaders/backhoes, and a crane). Graders typically generate the highest noise levels, emitting approximately 85 dBA at a distance of 50 feet (pile driving would not be required for this project).

Point sources of noise emissions are atmospherically attenuated by a factor of 6.0 dBA per doubling of distance. This assumes a clear line-of-sight and no other machinery or equipment noise that would mask project construction noise. The shielding of buildings and other barriers that interrupt line-of-sight conditions further reduce noise levels from point sources.

Construction noise impacts generally occur when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction durations last over extended periods of time. The closest existing sensitive receptor to the construction area is the La Vista Blanc Condominiums (residences) located adjacent to the project site boundary on the west. Additionally, the Chateau Blanc Condominiums are located adjacent to the project site boundary on the north. The majority of the construction would occur at distances of 100 to 300 feet or more from the nearest sensitive receptors and would not be expected to interfere with normal residential activities. These noise levels could intermittently occur for a few days when construction equipment is operating in close proximity to the resort condominiums. The remainder of the time the construction noise levels would be much less because the equipment would be working in a large area farther away from the existing sensitive uses.

The Town has established noise standards for construction activity in Section 8.16.090 of the Town Noise Ordinance (refer to Table 5.8-8). Pursuant to Section 8.16.090, the maximum exterior noise levels allowed in multi-family residential areas for mobile (e.g., excavator, backhoe, dozer, loader, etc.) and stationary equipment (e.g., generators, compressors, pumps, etc.) during 7:00 a.m. to 8:00 p.m. Monday through Saturday are 80 dBA and 65 dBA, respectively. In addition, the maximum exterior noise levels allowed in multi-family residential areas for mobile and stationary equipment during 8:00 p.m. to 7:00 a.m. Monday through Saturday, and all day Sunday and legal holidays, are 64 dBA and 55 dBA, respectively. All mobile and stationary internal-combustion powered equipment and machinery are required to be equipped with suitable exhaust and air-intake silencers in proper working order under the Town Noise Ordinance. As the majority of the construction would occur at distances of 100 to 300 feet from the closest receptors (i.e., the La Vista Blanc Condominiums and the Chateau Blanc Condominiums), the loudest construction noise level of 85 dBA would be reduced to 79 dBA and would not exceed the limits in Section 8.16.090 of the Town's Municipal Code. Additionally, haul trucks traveling along Meadow lane would be approximately 50 feet from the closest receptors. As indicated in Table 5.8-11, trucks have a maximum noise level of 80 dBA at 50 feet. Therefore, noise from truck hauling would also not exceed the Town's standards.

Adherence to the Town's Municipal Code Section 8.16.090 requirements, and compliance with Mitigation Measure NOI-1 would reduce short-term construction noise impacts by requiring mobile equipment to be muffled and requiring best management practices for hauling activities. In addition, Mitigation Measure NOI-1 would require a disturbance coordinator to respond to construction noise complaints and direct equipment away from sensitive receptors to further reduce construction-related noise. As construction would be limited to daytime hours per Town's Municipal Code Section 8.16.090 and due to the short-term nature of construction activities, construction-related noise would be less than significant with mitigation.

Mitigation Measures:

NOI-1 Prior to issuance of any Grading Permit or Building Permit for new construction, the Public Works Director, or designee, shall confirm that the Grading Plan, Building Plans, and specifications stipulate that:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices.

- The Contractor shall provide a qualified "Noise Disturbance Coordinator." The Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the Town within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Public Works Director, or designee. The contact name and the telephone number for the Disturbance Coordinator shall be clearly posted on-site.

- When feasible, construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, schools, hospitals, etc.).

- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

- Construction activities that produce noise shall not take place outside of the allowable hours specified by the Town's Municipal Code Section 8.16.090 (7:00 a.m. and 8:00 p.m. Monday through Saturday; construction is prohibited on Sundays and/or federal holidays).

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

VIBRATION IMPACTS

N-2 PROJECT IMPLEMENTATION WOULD NOT RESULT IN SIGNIFICANT VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS.

Impact Analysis: Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 inch/second) appears to be conservative even for sustained pile driving. Pile driving levels often exceed 0.2 inch/second at distances of 50 feet, and 0.5 inch/second at 25 feet without any apparent damage to buildings.

Construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. The typical vibration produced by construction equipment is illustrated in Table 5.8-12, *Typical Vibration Levels for Construction Equipment*.

Table 5.8-12
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity (inches/second) at:[1, 2]			
	15 feet	25 feet	50 feet	100 feet
Large bulldozer	0.191	0.089	0.031	0.01
Loaded trucks	0.164	0.076	0.027	0.01
Small bulldozer	0.006	0.003	0.001	0.00
Jackhammer	0.075	0.035	0.012	0.00
Vibratory compactor/roller	0.452	0.210	0.074	0.03

Notes:
1. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.
2. Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
D = the distance from the equipment to the receiver

As indicated in Table 5.8-12, based on the FTA data, vibration velocities from typical heavy construction equipment that would be used during project construction range from 0.006 to 0.452 inch-per-second peak particle velocity (PPV) at 15 feet from the source of activity. It should be noted that the vibratory compactor/roller is the only piece of equipment that would exceed the 0.2 in inch-per-second PPV threshold at this conservative distance. With regard to the proposed project, groundborne vibration would be generated primarily during site clearing and grading activities on-site and by off-site haul-truck travel. These activities would occur at distances of 50 feet or more from the closest sensitive receptors to the north and west (i.e., the La Vista Blanc Condominiums and the Chateau Blanc Condominiums). Additionally, the use of any vibratory compactor/rollers would not occur within 50 feet of the closest sensitive receptors because the proposed parking and community facilities are buffered from the sensitive receptors. Therefore, as demonstrated in Table 5.8-12, the

anticipated vibration levels at 50 feet or more would not exceed the 0.2 inch-per-second PPV significance threshold during construction. It should be noted that 0.2 inch-per-second PPV is a conservative threshold, as that is the construction vibration damage criteria for non-engineered timber and masonry buildings.[1] Buildings within the project area would be better represented by the 0.5 inch-per-second PPV significance threshold (construction vibration damage criteria for a reinforced concrete, steel or timber buildings).[2]

Section 8.16.090(B)(7) of the Town's Municipal Code also includes a threshold for the perception of groundborne vibration (0.01 inch-per-second PPV). Although the project site is approximately 50 feet away from the closest receptors, the primary construction areas would be 100 feet away or more. As depicted in Table 5.8-12, vibration levels would be barely perceptible at this distance. In addition, per the Town's requirements, construction activities would occur between the hours of 7:00 a.m. and 8:00 p.m. Monday through Friday. These activities would not occur during recognized sleep hours for residents. Therefore, proposed construction activities associated with the project would not expose sensitive receptors to excessive groundborne vibration levels. Vibration impacts associated with construction would be less than significant and no mitigation measures are required.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (MOBILE) NOISE IMPACTS

N-3 TRAFFIC GENERATED BY THE PROPOSED PROJECT WOULD NOT SIGNIFICANTLY CONTRIBUTE TO EXISTING TRAFFIC NOISE IN THE AREA OR EXCEED THE TOWN'S ESTABLISHED STANDARDS.

Impact Analysis:

The "Future Without Project" and "Future With Project" scenarios were compared for long-term conditions. In Table 5.8-13, *Future Traffic Noise Levels*, the noise levels (dBA at 100 feet from centerline) depict what would typically be heard 100 feet perpendicular to the roadway centerline. As indicated in Table 5.8-13 under the "Future Without Project" scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 52.3 dBA to 65.4 dBA. The highest noise levels under "Future Without Project" conditions would occur along Meridian Boulevard, west of Old Mammoth Road. Under the "Future With Project" scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 52.4 dBA to 65.4 dBA. The highest noise levels occurring under these conditions would also occur along Meridian Boulevard, west of Old Mammoth Road. Table 5.8-13 also compares the "Future Without Project" scenario to the "Future With Project" scenario. The proposed project would increase noise levels on the surrounding roadways by a maximum of 0.1 dBA along Chateau Road, west of Old Mammoth Road. Therefore, noise levels resulting from the proposed project would be less than significant.

[1] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.
[2] Ibid.

Table 5.8-13
Future Traffic Noise Levels

Roadway Segment	Future Without Project					Future With Project					Difference in dBA @ 100 feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Old Mammoth Road											
North of Meridian Boulevard	11,713	59.4	101	32	10	11,776	59.4	101	32	10	0
Between Chateau Road and Meridian Boulevard	11,395	59.2	98	31	10	11,403	59.2	98	31	10	0
South of Project Driveway	8,575	58.0	74	23	7	8,603	58.0	74	12	7	0
Meridian Boulevard											
West of Old Mammoth Road	17,119	65.4	402	127	40	17,216	65.4	403	128	40	0
East of Old Mammoth Road	15,423	64.9	361	114	36	15,429	64.9	361	114	36	0
Chateau Road											
West of Old Mammoth Road	2,226	52.3	13	6	2	2,234	52.4	19	6	2	0.1

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level
Source: Noise modeling is based upon traffic data within the *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis*, prepared LSC Transportation Consultants, July 29, 2016.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (STATIONARY) NOISE IMPACTS

N-4 THE PROPOSED PROJECT WOULD NOT RESULT IN A SIGNIFICANT INCREASE IN LONG-TERM STATIONARY AMBIENT NOISE LEVELS.

Impact Analysis: The project proposes new community multi-use facilities that include a 13,000 square foot community center, an ice rink (winter), the RecZone (a summer recreation/event area), improvements to the existing playground, an active outdoor recreation area, and parking facilities. Primary noise sources associated with these facilities are mechanical equipment (i.e., chillers and pumps), recreational noise, event noise, and parking lot noise.

Mechanical Equipment. The proposed project would require the use of heating, ventilation, and air conditioning units (HVAC) for the indoor community center facilities as well as chillers and pumps for the ice rink. The HVAC systems would be located at the proposed building (either inside or roof mounted) and typically result in noise levels that average between 40 and 50 dBA L_{eq} at 50 feet from the equipment. As the buildings would be located approximately 100 feet and 150 feet from the closest sensitive receptors to the west (La Vista Blanc Condominiums) and north (Chateau Blanc

Condominiums), respectively, HVAC noise levels would be 44 dBA or less and would not exceed the Town's noise standard (55 dBA in the daytime and 50 dBA at night)[3].

Based on noise measurements of the chillers and mechanical equipment at the existing ice rink, noise levels for this equipment are approximately 75 dBA at 10 feet. The equipment would be located within a mechanical room located approximately 125 feet from the property line of the closest sensitive receptor (La Vista Blanc Condominiums to the west). At this distance noise from the mechanical equipment would be 55 dBA due to distance attenuation alone. However, the proposed mechanical room enclosure has concrete masonry unit (CMU) walls that would further attenuate noise levels. The CMU enclosure would be approximately eight feet high and would block the line of sight between the chiller and the receptors. A CMU barrier would attenuate chiller noise by a minimum of 8 dBA[4], which would reduce the noise levels to 45 dBA at the La Vista Blanc Condominiums property line (the closest receptors, which are located approximately 125 feet away from the proposed mechanical room). This noise level would not exceed the Town's standards and is similar to the ambient levels (40 and 45 dBA; refer to Table 5.8-3) and would not be noticeable at the sensitive receptors. Impacts would be less than significant in this regard.

Community Center. The community center would include various rooms that would host various community activities and would also support the ice rink and RecZone. The community activities are anticipated to include educational programs, fitness classes, games, arts and crafts programs, camps, and training courses, among others. Noise associated with these activities primarily consists of conversations from groups of people. Normal conversation typically generates noise levels of 60 to 65 dBA at a distance of 3 feet. The activities associated with the community center would be located indoors, which would reduce transmission of noise to exterior areas by 24 dBA[5]. Additionally, Community center activities would also be oriented away from the sensitive receptors and would be located 150 feet away from the closest sensitive receptors (Chateau Blanc Condominiums). At this distance, and considering the indoor-to-outdoor attenuation of the building, the community center noise levels would not be audible at the closest receptors and impacts would be less than significant.

Ice Rink. The proposed ice rink would be located in the central portion of the site. The closest sensitive receptors would be the La Vista Blanc Condominiums approximately 150 feet to the west and the Chateau Blanc Condominiums located 220 feet to the north. The proposed community facilities building would be located between the ice rink and the closest sensitive receptors and would act as a noise barrier. It should be noted that the northwest portion of the community facilities building would not be constructed until phase 2. However, a solid wall barrier would be constructed in the interim and would also provide sound attenuation. Based on the measured noise levels in Table 5.8-3, recreational skating would be 55.3 dBA and hockey would be 69.6 dBA at the edge of the ice rink. The measured noise levels include sounds from individuals skating as well as noise from contact with the dasher boards surrounding the existing ice rink. At the propose project, these noise levels would be reduced by the intervening community center building and distance attenuation (i.e., reduced

[3] The Town's noise standards of 55 dBA in the daytime and 50 dBA at night for multi-family uses are per the Noise Ordinance (Municipal Code Chapter 8.16 [Noise Regulation]). The Town currently utilizes the standards in the Noise Ordinance, which have superseded the 1997 Noise Element standards (the noise element was not updated in the 2007 General Plan Update).

[4] Based on an 8 dB reduction for barriers per the Federal Highway Administration, *Roadway Construction Noise Model Users Guide*, January 2006.

[5] U.S. Environmental Protection Agency, *Protective Noise Levels (EPA 550/9-79-100)*, November 1978.

intensity as sound energy travels away from the source). As such, noise levels associated with recreational skating and ice hockey would be reduced at the property line of the La Vista Blanc Condominiums (the closest sensitive receptors, located approximately 150 feet west) to 32.3 dBA and 46.6 dBA, respectively.[6] Additionally, the ice rink would be covered with a roof, which would further reduce noise levels. The resultant noise levels would be below the Town's exterior standard during the 7:00 a.m. to 10:00 p.m. period. However, ice hockey activities have the potential to exceed the 10:00 p.m. to 7:00 a.m. nighttime standard of 50 dBA. Therefore, Mitigation Measure NOI-2 would be required to ensure that ice hockey activities end at 10:00 p.m. With implementation of Mitigation Measure NOI-2, impacts would be less than significant in this regard.

The outdoor ice rink could generate crowd noise from the viewing area. Noise generated by groups of people (i.e., crowds) is dependent on several factors including vocal effort, impulsiveness, and the random orientation of the crowd members. Crowd noise is estimated at 60 dBA at one meter (3.28 feet) away for raised normal speaking.[7] This noise level would have a +5 dBA adjustment for the impulsiveness of the noise source, and a -3 dBA adjustment for the random orientation of the crowd members.[8] Therefore, crowd noise would be approximately 62 dBA at one meter from the source. Noise has a decay rate due to distance attenuation, which is calculated based on the Inverse Square Law for sound propagation. Based upon the Inverse Square Law, sound levels decrease by 6 dBA for each doubling of distance from the source.[9] The proposed community center building (and interim phase 1 sound wall) and ice rink roof would also shield the receptors from crowd noise. As a result, crowd noise at the property line of the nearest receptor (La Vista Blanc Condominiums), located 150 feet away from the project site, would be 28.8 dBA, which would not exceed the Town's noise standards. As such, the viewing area on the project site would not introduce an intrusive noise source over existing conditions or exceed the Town's noise standards. Thus, a less than significant impact would occur in this regard.

In addition, use of an ice resurfacer/zamboni would also produce noise during operation of the ice rink. Noise from this equipment typically ranges from 64 to 71 dBA at 50 feet from the source. The nearest existing sensitive receptors (La Vista Blanc Condominiums) are located approximately 200 feet to the west from the center of the ice rink. However, the ice rink would be surrounded on the west and north by the proposed community facilities and support/mechanical buildings (and interim phase 1 sound wall), which would attenuate noise levels from the zamboni. Therefore, due to the attenuation from distance and intervening structures, noise levels from ice resurfacing equipment would be reduced to 44 dBA or lower at the La Vista Blanc Condominiums, which is below the Town's noise standards. Impacts would be less than significant in this regard.

The ice resurfacer would be stored on the west side of the proposed building, next to the mechanical room and electrical room. Ice resurfacing is anticipated to occur on an average of two to three times per day and a maximum of seven times per day during a hockey or holiday event. After resurfacing, a roll-up door would be raised on the west side of the building and the ice shavings would be deposited approximately 10 to 15 feet away from the building. The ice resurfacer would not be actively grooming

[6] Based on distance attenuation rate of 6 dB per doubling of distance per the inverse square law for sound and a 15 dB reduction for intervening structures per the Federal Highway Administration, *Roadway Construction Noise Model Users Guide*, January 2006.

[7] M.J. Hayne, et al, *Prediction of Crowd Noise*, Acoustics, November 2011.

[8] *Ibid.*

[9] Cyril M. Harris, *Noise Control in Buildings*, 1994.

anything on the outside of the facility. After dropping the ice shavings, the resurfacer would re-enter the garage. Deposition of the ice shavings would be infrequent and have a short duration (five to 15 minutes at a time). The garage would be located approximately 110 feet from the western property line and 140 feet from the closest receptor (balconies at the La Vista Blanc Condominiums). Noise levels from the resurfacer would be 55 dBA at the La Vista Blanc Condominiums. Noise levels from these operations occur over short durations are representative of the L_{max} values and would be even lower when measured on the time-averaged scale that the Town's standards are based on. It should be noted that these operations are lower intensity that resurfacing, and would generate lower noise levels than the reference noise levels identified above. Additionally, as noted above, the ice resurfacer activities on the west side of the garage would be infrequent and have a short duration and noise levels would be even lower on a time-averaged scale. The La Vista Blanc balconies facing the project are approximately six to eight feet deep and would generally not be occupied or frequently used during the project's winter peak recreational period. Based on the levels of noise produced and the distance to the La Vista Blanc Condominiums, noise levels would not exceed the Town's standards.

Mammoth Recreation Zone. The RecZone would operate on the ice rink area during the summer months. Potential recreational activities could include roller skating, basketball, volleyball, dodgeball, soccer, badminton, and tennis, among others. Average recreational noise levels generated during organized sports games are approximately 58.4 dBA at a distance of 50 feet from the focal point or effective noise center of the playing surface.[10] The closest sensitive receptors to the recreation zone (La Vista Blanc Condominiums) would be approximately 140 feet away. Additionally, the community center building (and interim phase 1 sound wall) would be located between the recreation zone and sensitive receptors and act as a noise barrier. As such, noise levels from the recreation zone would be reduced to 34.5 dBA at the closest sensitive receptors. Additionally, as noted in the ice rink discussion above, crowd noise in this area would also not exceed the Town's standards. Impacts would be less than significant in this regard.

The various activities at the community center could also involve events with amplified live or recorded music. Amplified music is typically 88 dBA at 20 feet and would be 55.5 dBA at the closest receptors (La Vista Blanc Condominiums), conservatively assuming the worst-case scenario that the noise source would be at the western edge of the ice rink/recreation zone (approximately 100 feet from the western property line). As such, noise levels would have the potential to exceed the Town's daytime standard. Therefore, Mitigation Measure NOI-3 is required to ensure that amplified noise sources (speakers, bandstands, etc.) are located at a sufficient distance (i.e., 160 feet) from the property line and sound levels are limited to 82 dBA at 20 feet during the day to comply with the Town's standards. Additionally, Mitigation Measure NOI-3 prohibits amplified music after 10:00 p.m., unless the volume of the amplification system is adjusted to not exceed 78 dBA at 20 feet from the source. This adjustment would ensure that noise levels do not exceed the Town's nighttime standard at the property line. Impacts would be less than significant with implementation of Mitigation Measure NOI-3.

[10] Reference event noise measurement taken at an Orange County Women's Soccer League game on June 3, 2007. Noise monitoring equipment used for the soccer game consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a 4189 pre-polarized free-field microphone. This monitoring equipment complies with applicable requirements of the American National Standards Institute for Type I (precision) sound level meters.

Park Playground. The park playground is currently approximately 200 feet away from the Chateau Blanc Condominiums (the closest sensitive receptors). The proposed project would not relocate the park and the size of the playground would remain the same. Playground noise is typically 60 dBA at approximately 40 feet away.[11] Playground noise would be approximately 46 dBA at the Chateau Blanc Condominium property line (the closest sensitive receptors, located 180 feet to the north), which is within the Town's standards. Additionally, the park playground is an existing use, and noise levels would not increase substantially over existing conditions with implementation of the proposed project. Impacts would be less than significant in this regard.

Active Outdoor Recreation Area. The active outdoor recreation area would be located west of the proposed structures and would potentially include a dog park, a BMX bicycle dirt track (during summer months), sledding hill (during winter months), and/or a community garden. The potential activities would be located as close as 60 feet east of the La Vista Blanc Condominiums, but most activities would be 100 feet away or more. Noise generated from activities within the active outdoor recreation area would primarily consist of people congregating, conversations, children playing, and dogs barking.

Noise levels typically associated with dog parks (barking, conversations) is 52 dBA at 50 feet. Noise associated with children playing (e.g., sledding, biking, etc.) is typically 56 dBA at 50 feet. Activities at the active outdoor recreation area would occur throughout an approximately 600 square foot area and would not be focused in one location. On average, noise from active outdoor recreation areas would be approximately 100 feet from the closest La Vista Blanc receptors to the west. At this distance, recreational noise would be approximately 50.0 dBA.

Noise from the active outdoor recreation area may be audible at the building interiors along the property line. The outdoor-indoor attenuation rate for typical construction is 24 dBA with windows closed and 12 dBA with windows open.[12] Therefore, active outdoor recreation area noise would be reduced to 26 dBA with windows closed and 38 dBA with windows open and would not exceed the Town's daytime exterior standards. An exceedance of the Town's nighttime standard could occur. Therefore, Mitigation Measure NOI-2 would be required to prohibit use of the active outdoor recreation area after 10:00 p.m. Impact in this regard would be less than significant with implementation of Mitigation Measure NOI-2.

Parking. Noise associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. Also, noise would primarily remain on-site and would be intermittent (during peak-events). However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Parking lot noise can also be considered a "stationary" noise source. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 5.8-14, *Maximum Noise Levels Generated by Parking Lots*.

[11] Edward L. Pack Associates, Inc., *Noise Assessment Study for the Rocketship School*, October 23, 2015.
[12] U.S. Environmental Protection Agency, *Protective Noise Levels (EPA 550/9-79-100)*, November 1978.

Table 5.8-14
Maximum Noise Levels Generated by Parking Lots

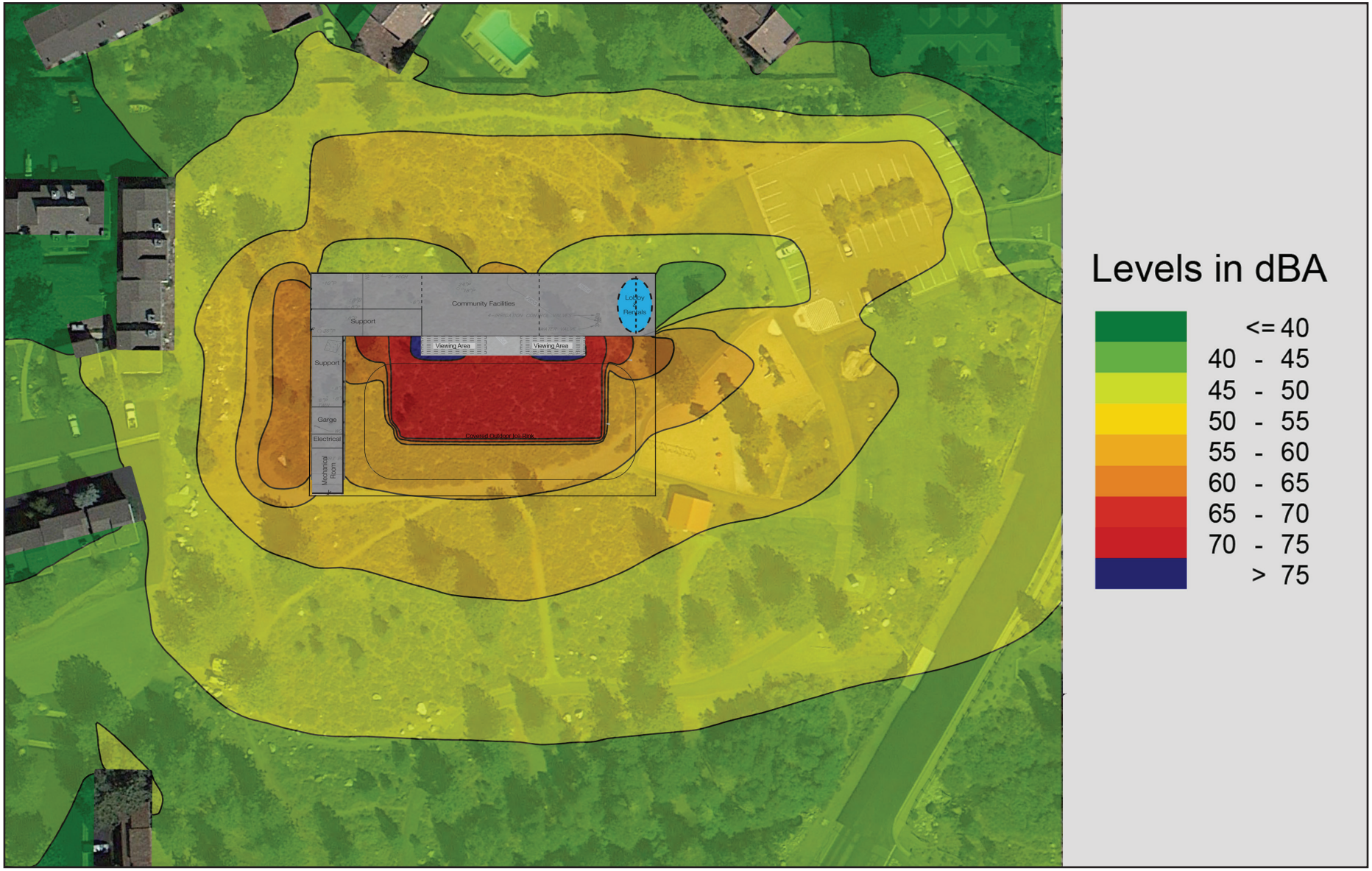
Noise Source	Maximum Noise Levels at 50 Feet from Source
Car door slamming	63 dBA L_{eq}
Car starting	60 dBA L_{eq}
Car idling	61 dBA L_{eq}

The noise generated in the parking lot would be at a distance of approximately 50 feet from the nearest sensitive receptors. Additionally, parking lot noise currently exists at the project site from current park use. Although the parking lot is proposed to expand to the west, noise associated with parking activities would not expose sensitive receptors to noise levels in excess of the Town's Noise Standards as the noise would be partially masked by landscaping and intervening topography that would be within the building setbacks. Additionally, the noise levels in Table 5.8-14 are event noise levels and would not occur for long enough periods of time to result in an exceedance of the Town's time-averaged standards. Therefore, the sensitive receptors would not be exposed to excessive noise from parking areas. A less than significant impact would occur in this regard.

Combined Noise Levels

Noise levels associated with the worst-case simultaneous activities during the winter (i.e., ice hockey, crowd noise, active outdoor recreation, and the mechanical equipment) and during the summer (i.e., recreation zone and crowd noise) were modeled with the SoundPLAN three-dimensional noise model. SoundPLAN allows computer simulations of noise situations, and creates noise contour maps using reference noise levels, topography, point and area noise sources, mobile noise sources, and intervening structures. Noise contours associated with the worst-case recreational activities are depicted in Exhibit 5.8-3, *Recreational Noise Contours*, and represent the collective noise level from simultaneous activities (described in the analysis above) at the project site with implementation of Mitigation Measures NOI-2 and NOI-3. As indicated in Exhibit 5.8-3, the combined noise levels during the worst-case scenario would not exceed the Town's noise standards.

As noted above, the Town's noise standards of 55 dBA in the daytime and 50 dBA at night for multi-family uses are per the Noise Ordinance (Municipal Code Chapter 8.16). The Town currently utilizes the standards in the Noise Ordinance, which have superseded the 1997 Noise Element standards (the noise element was not updated in the 2007 General Plan Update. However, Exhibit 5.8-3 and the analysis above demonstrate that the proposed project would not exceed the Town's Noise Ordinance Standards or the General Plan 1997 Noise Element standards (50 dBA hourly L_{eq} in the daytime and 45 dBA hourly L_{eq} at night, as well as the 70 dBA maximum daytime and the 65 dBA maximum nighttime levels. It should be noted that occasional special events (occasional outdoor gatherings, public dances, shows, and sporting and entertainment events) would be required to apply for an Administrative Permit (Special Event Permit). As noted in the Noise Ordinance (Municipal Code Chapter 8.16.100 – Exemptions), such events are exempted from the specific limits set by the Noise Ordinance.



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ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Recreational Noise Countours

Exhibit 5.8-3

The implementation of Mitigation Measures NOI-2 and NOI-3 would be required to ensure compliance with the Town's noise standards. Impacts would be less than significant with implementation of Mitigation Measures NOI-2 and NOI-3.

Mitigation Measures:

NOI-2 Prior to issuance of the certificate of occupancy for the new Community Multi-Use Facilities, the Town's Community Development and Economic Manager shall ensure that operational hours of ice hockey and hockey tournaments at the ice rink and the active outdoor recreational area do not occur past 10:00 p.m. This limitation shall be enforced by the Parks and Recreation Director.

NOI-3 Prior to occupancy of the community center, the Town shall develop and implement a Noise Control Plan for event operations that have live or recorded amplified music. The Noise Control Plan shall contain the following elements:

- Amplified noise sources (e.g., speakers, bandstands, etc.) shall be located more than 160 feet from the project's western and northern boundaries. Speaker systems shall also be directed away from the nearest sensitive receptors.

- Amplification systems that would be used during the daytime (7:00 a.m. to 10:00 p.m.) shall include and utilize a processor to control the maximum output that the speakers can reach. Noise levels during this period shall not exceed 82 dBA at 20 feet from the source. Activities permitted pursuant to Municipal Code Chapter 8.16.100 – Exemptions, shall not be subject to this limit. All other non-permitted activities shall be subject to the limits set forth in this mitigation measure.

- Amplification systems that would be used after 10:00 p.m. shall include and utilize a processor to control the maximum output that the speakers can reach. Noise levels during this period shall not exceed 78 dBA at 20 feet from the source. Activities permitted pursuant to Municipal Code Chapter 8.16.100 – Exemptions, shall not be subject to this limit. All other non-permitted activities shall be subject to the limits set forth in this mitigation measure.

- The contact telephone number and email addresses of the appropriate Parks and Recreation Department representatives shall be posted at each facility entrance for neighbors to lodge noise complaints or other concerns. Complaints shall be addressed in a diligent and responsive manner.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.8.5 CUMULATIVE IMPACTS

Table 4.1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a

significant cumulative effect may occur. The following discussions are included per topic area to determine whether a significant cumulative effect would occur.

SHORT-TERM CONSTRUCTION NOISE IMPACTS

- **GRADING AND CONSTRUCTION WITHIN THE AREA COULD RESULT IN SIGNIFICANT SHORT-TERM NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS, FOLLOWING IMPLEMENTATION OF MITIGATION MEASURES.**

Impact Analysis: Construction activities associated with the proposed project and cumulative projects may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to the construction site. The closest cumulative project is the Mammoth Creek Inn expansion project, located approximately 200 feet to the northeast across Old Mammoth Road. This project would add 12 units to the existing inn and would not require extensive earthwork or heavy equipment that generates the loudest construction noise levels. The next closest cumulative project is Snowcreek VIII project, located as close as 350 feet to the south. It should be noted that the Snowcreek VIII site is over 200 acres in size and majority of the site is 1,000 feet away or more. The two projects (proposed project and Snowcreek VIII) are also separated by Old Mammoth Road. As such, cumulative noise impacts would not occur due to site distance. The proposed project and Snowcreek VIII would be required to comply with the Town's Municipal Code limitations on allowable hours of construction. The Mammoth Creek Gap Closure Project is located approximately 450 feet to the south of the proposed project and would not result in significant cumulative construction noise impacts, as this is a trail improvement project and would not involve substantial disturbance activities. The proposed project would also implement Mitigation Measure NOI-1 to reduce construction noise impacts to less than significant levels. Therefore, the project's contribution to cumulative noise impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measure NOI-1.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

VIBRATION IMPACTS

- **PROJECT IMPLEMENTATION WOULD NOT RESULT IN SIGNIFICANT VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS.**

Impact Analysis: As stated above, construction activities associated with the proposed project and cumulative projects may overlap. Despite the potential for overlap, groundborne vibration generated at the project site during construction would not be in exceedance of the Federal Transit Administration 0.2 inch/second threshold. In addition, there would be no vibration impacts associated with operations at the project site. The nearest cumulative projects are Mammoth Creek Inn, located 200 feet northeast; Snowcreek VIII, located approximately 350 feet south; and the Mammoth Creek Gap Closure Project, located approximately 450 feet to the south of the proposed project site. No cumulative vibration impacts would occur at this distances. Therefore, vibration impacts of the proposed project would not be cumulatively considerable. Further, the cumulative development projects would be required to implement any required mitigation measures that may be

prescribed pursuant to CEQA provisions. Therefore, the project's contribution to cumulative vibration impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (MOBILE) NOISE IMPACTS

- **TRAFFIC GENERATED BY THE PROPOSED PROJECT WOULD NOT SIGNIFICANTLY CONTRIBUTE TO EXISTING TRAFFIC NOISE IN THE AREA OR EXCEED THE TOWN'S ESTABLISHED STANDARDS.**

Impact Analysis: The cumulative mobile noise analysis is conducted in a two-step process. First, the combined effects from both the proposed project and other projects are compared. Second, for combined effects that are determined to be cumulatively significant, the project's incremental effects then are analyzed. The project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to "existing" conditions. This comparison accounts for the traffic noise increase from the project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

Combined Effects. The cumulative with project noise level ("Future With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

Incremental Effects. The "Future With Project" causes a 1.0 dBA increase in noise over the "Future Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. Consequently, only proposed projects and growth due to occur in the general vicinity of the project site would contribute to cumulative noise impacts. Table 5.8-15, *Cumulative Noise Scenario*, lists the traffic noise effects along roadway segments in the project vicinity for "Existing", "Future Without Project", and "Future With Project", including incremental and net cumulative impacts.

Table 5.8-15
Cumulative Noise Scenario

Roadway Segment	Existing	Future Without Project	Future With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing and Future With Project	Difference In dBA Between Future Without Project and Future With Project	
Old Mammoth Road						
North of Meridian Boulevard	58.8	59.4	59.4	0.6	0	**No**
Chateau Road to Meridian Boulevard	58.5	59.2	59.2	0.7	0	**No**
South of Project Driveway	56.4	58.0	58.0	1.6	0	**No**
Meridian Boulevard						
West of Old Mammoth Road	65.1	65.4	65.4	0.3	0	**No**
East of Old Mammoth Road	64.7	64.9	64.9	0.2	0	**No**
Chateau Road						
West of Old Mammoth Road	51.2	52.3	52.4	1.2	0.1	**No**

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level
Source: Noise modeling is based upon traffic data within the *Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis,* prepared LSC Transportation Consultants, July 29, 2016.

First, it must be determined whether the "Future With Project" increase above existing conditions (*Combined Effects*) is exceeded. Per Table 5.8-15, this criteria is not exceeded along any of the segments. Next, under the *Incremental Effects* criteria, cumulative noise impacts are defined by determining if the forecast ambient ("Future Without Project") noise level is increased by 1.0 dB or more. Based on the results of Table 5.8-15, there would not be any roadway segments that would result in significant impacts, as they would not exceed either the combined or the incremental effects criteria. The proposed project would not result in long-term mobile noise impacts based on project generated traffic as well as cumulative and incremental noise levels. Therefore, the proposed project, in combination with cumulative background traffic noise levels, would result in a less than significant cumulative impact in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM (STATIONARY) NOISE IMPACTS

- **THE PROPOSED PROJECT WOULD NOT RESULT IN A SIGNIFICANT INCREASE IN LONG-TERM STATIONARY AMBIENT NOISE LEVELS.**

Impact Analysis: Although the related cumulative projects have been identified within the project study area, the noise generated by stationary equipment on-site cannot be quantified due to the speculative nature of conceptual nature of each development. However, each cumulative project would require separate discretionary approval and CEQA assessment, which would address potential noise impacts and identify necessary attenuation measures, where appropriate. Additionally, as noise dissipates as it travels away from its source, noise impacts from stationary sources would be limited to each of the respective sites and their vicinities. The nearest related project to the project site would be Mammoth Creek Inn, which is a 12 unit expansion on the existing structure. Future operations of the expanded Mammoth Creek Inn would be similar to existing conditions and would not contribute to a cumulative long-term noise impact. The next closest cumulative project is Snowcreek VIII (located approximately 350 feet to the south). It should be noted that the Snowcreek VIII site is over 200 acres in size and majority of the site is 1,000 feet away or more. The two projects (proposed project and Snowcreek VIII) are also separated by Old Mammoth Road. As such, cumulative stationary noise impacts would not occur due to site distance. As noted above, the proposed project would not result in significant stationary noise impacts. The proposed project would not result in stationary long-term equipment that would significantly affect surrounding sensitive receptors with the implementation of Mitigation Measures NOI-2 and NOI-3. Thus, the proposed project and identified cumulative projects are not anticipated to result in a significant cumulative impact.

Mitigation Measures: Refer to Mitigation Measures NOI-2 and NOI-3.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.8.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No unavoidable significant impacts related to air quality have been identified following implementation of the recommended Mitigation Measures NOI-1 through NOI-3 and compliance with the applicable Federal, State, and local regulatory requirements.

5.9 Hydrology and Water Quality

5.9 HYDROLOGY AND WATER QUALITY

This section analyzes potential project impacts on existing drainage patterns, surface hydrology, and flood control facilities and water quality conditions in the project area. Mitigation measures are recommended to avoid potential impacts or reduce them to a less than significant level. This analysis is based on the *Preliminary Drainage Study* (Drainage Study), prepared by Triad/Holmes Associates, dated August 12, 2016; refer to Appendix 11.7, *Drainage Study*.

5.9.1 EXISTING SETTING

REGIONAL HYDROLOGY AND DRAINAGE CONDITIONS

Hydrologic Setting

The Town of Mammoth Lakes is located within the Mammoth Hydrologic Basin. This approximate 71-square-mile basin is part of the Long Valley Subunit of the Owens Valley Hydrologic Unit. The Mammoth Hydrologic Basin includes many alpine lakes, surface streams, and springs, which are all tributary to Mammoth Creek or Hot Creek. Mammoth Creek serves as the principal drainage course through the Town of Mammoth Lakes and flows into Hot Creek at a point to the east of U.S. Highway 395. Hot Creek then flows easterly into the Owens River. The total length of the Mammoth Creek/Hot Creek drainage system is approximately 18 miles.

Major Watersheds

The Mammoth Hydrologic Basin contains six distinct major watersheds. Watersheds I through V comprise the major tributary area of Mammoth Creek (located upstream of U.S. Highway 395) and Hot Creek (located downstream of U.S. Highway 395). The remaining Basin area has been combined into Watershed VI, even though minor drainage districts could be designated. Watershed I encompasses the Lakes Basin and contains the largest and most numerous lakes within the Mammoth Hydrologic Basin. Watershed II, includes portions of Mammoth Mountain and the Town of Mammoth Lakes (including the project site), which drains directly into Mammoth Creek. Watershed III drains into Mammoth Creek near U.S. Highway 395.

Regional Drainage and Runoff

Mammoth Creek serves as the primary surface watercourse in the Mammoth Hydrologic Basin. Secondary watercourses in the Basin include Murphy Gulch, Hot Creek, Bodle Ditch, Laurel Creek, and Sherwin Creek. Flow rates decrease in summer after peaking in the spring snowmelt. Drainage flows to the east in areas located to the north of the Old Mammoth and Snowcreek Districts. The Old Mammoth and Snowcreek Districts are located in a separate mini-watershed, draining directly into one of two tributaries of Mammoth Creek. In other areas located to the south of State Route (SR)-203, drainage is accomplished by sheet flow through the Town of Mammoth Lakes and then into the existing roadway drainage system or unimproved channels/ditches, eventually draining down SR-203, which acts as a watercourse. For areas located to the north of SR-203, surface flows are carried via Canyon Boulevard into pipelines to SR-203.

Existing Regional Drainage Infrastructure

Existing drainage facilities are located throughout the Town of Mammoth Lakes. In 1975, a major storm drainage project established the area's storm drain system from Mammoth Slopes to Mammoth Ranger Station via Canyon Boulevard, Berner Street, Alpine Circle, and Main Street in the North Village Specific Plan area. This system, set forth in the Mammoth Lakes Storm Drain Master Plan (Storm Drain Master Plan) and described below, discharges into Murphy Gulch located to the east of the Mammoth Ranger Station. A 43,560-square-foot siltation basin was constructed at the downstream end of Murphy Gulch channel in conjunction with these drainage improvements. A comparison of the design flow capacities versus the tributary discharge values found that 50 of 445 storm drain pipes did not meet the required capacity for the 20-year event. The 100-year event was analyzed only on pipes that run parallel to the street and found that 16 of 82 pipes are undersized.

PROJECT SITE HYDROLOGY AND DRAINAGE CONDITIONS

Physical Setting of the Project Site

The site is located at the existing Mammoth Creek Park West. According to the Drainage Study, the subject site slopes gently from west to east at a grade rate of 2.5 percent. Ground surface elevations range from approximately 7,860 feet above mean sea level (msl) in the northwest corner of the site to approximately 7,847 feet above msl in the northeast corner. Other than the existing playground facility and associated paved surface parking lot, the project site is undeveloped area covered by big sagebrush scrub with scattered pine trees and artificial turf associated with the park activities.

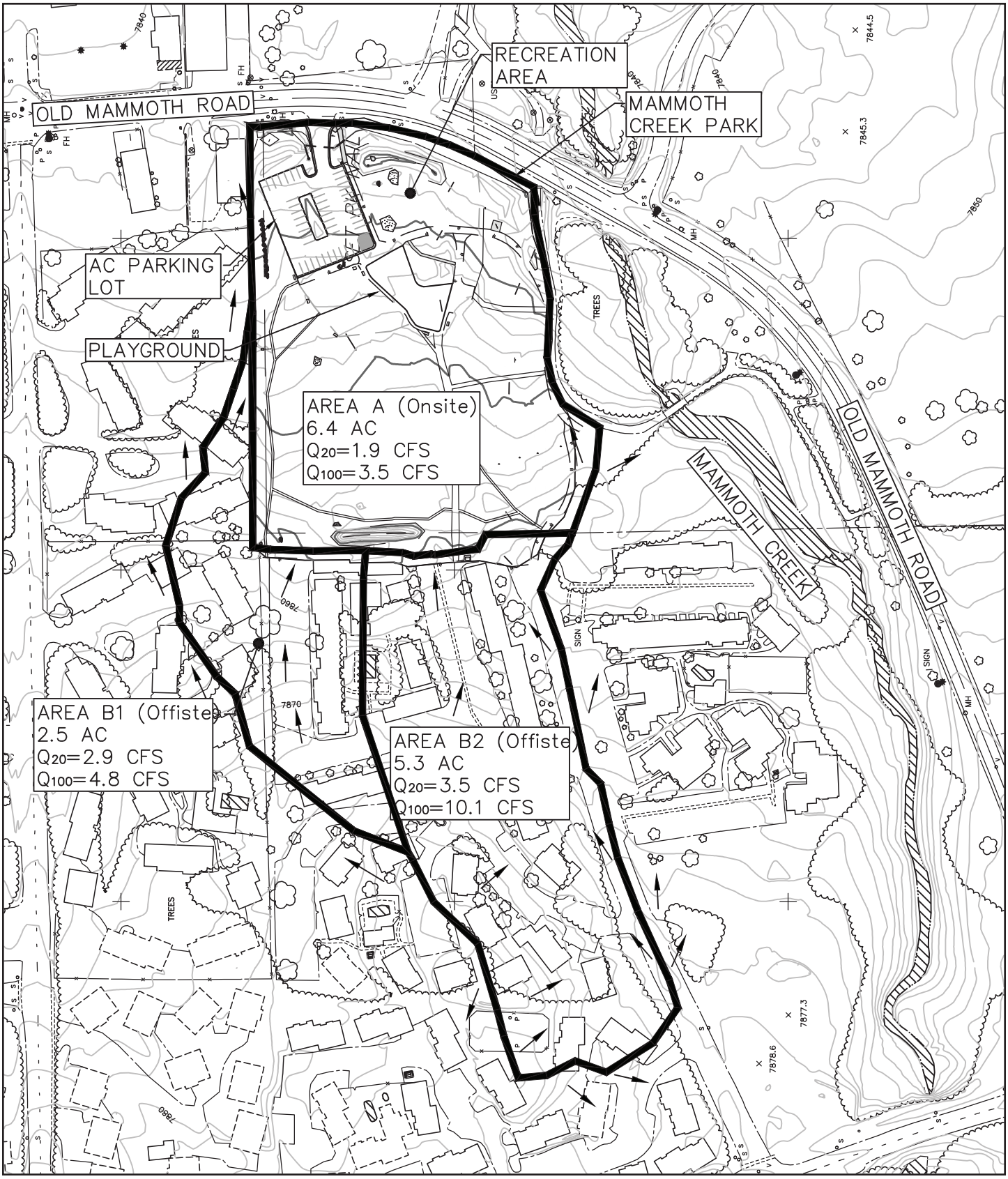
Drainage From Off-Site Sources

Currently, drainage from the off-site multi-family developments to the north and west of the project site sheet flows across the property from west to east. These two off-site tributary areas, labeled Areas B1 and B2 (identified on Exhibit 5.9-1, *Existing Drainage*), contribute sheet flows onto the project site from the north and west.

As discussed on Table 5.9-1, *Existing Flowrates*, Area B1 is 2.5 acres and includes residential developments adjacent to the Mammoth Creek Park West to the north and west. During the 20- and 100-year intensity storms, the runoff quantities are 2.9 cubic feet per second (cfs) and 4.8 cfs, respectively. As discussed on Table 5.9-1, Area B2 is 5.3 acres located west of the project site. This area also includes the residential development with runoff quantities of 3.5 cfs and 10.1 cfs for the storms of 20- and 100-year intensities, respectively.

Table 5.9-1
Existing Flowrates

Area ID	Area (Acres)	Flow (cfs)	
		20-year	100-year
B1	2.5	2.9	4.8
B2	5.3	3.5	10.1
A	6.4	1.9	3.5
Notes: cfs = cubic feet per second			
Source: Triad/Holmes Associates, *Preliminary Drainage Study*, dated August 12, 2016.			



Source: Triad/Holmes Associates, *Preliminary Drainage Study*; dated August 12, 2016.

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MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Existing Drainage

Exhibit 5.9-1

Drainage From On-Site Sources

The existing impervious areas of the project site encompass approximately 18,142 square feet (or 6.4 percent of the project site). As shown on Exhibit 5.9-1 and Table 5.9-1, the existing 20- and 100-year runoffs through the project site (referenced as Area A) are 1.9 cfs and 3.5 cfs, respectively. Discharge of runoff at the project site occurs at the eastern portion of the project site, which is tributary to Mammoth Creek (to the east-southeast).

EXISTING OFF-SITE MUNICIPAL STORM DRAIN FACILITIES

As discussed above, the project site sheets flows eastward across the project site. Currently, there are two drywells along the eastern portion of the project site.[1] The first drywell is located to the south of the Mammoth Creek Park West driveway entrance. This drywell catches all of the conveyed flow from the southern portion of the existing parking lot. The second drywell is located to the north of the Mammoth Creek Park West driveway entrance. This drywell catches the conveyed flow from the northern portion of the parking lot. This second drywell also has an overflow pipe, which directs the flow to a semi natural vegetated depression located to the north, along Old Mammoth Road.

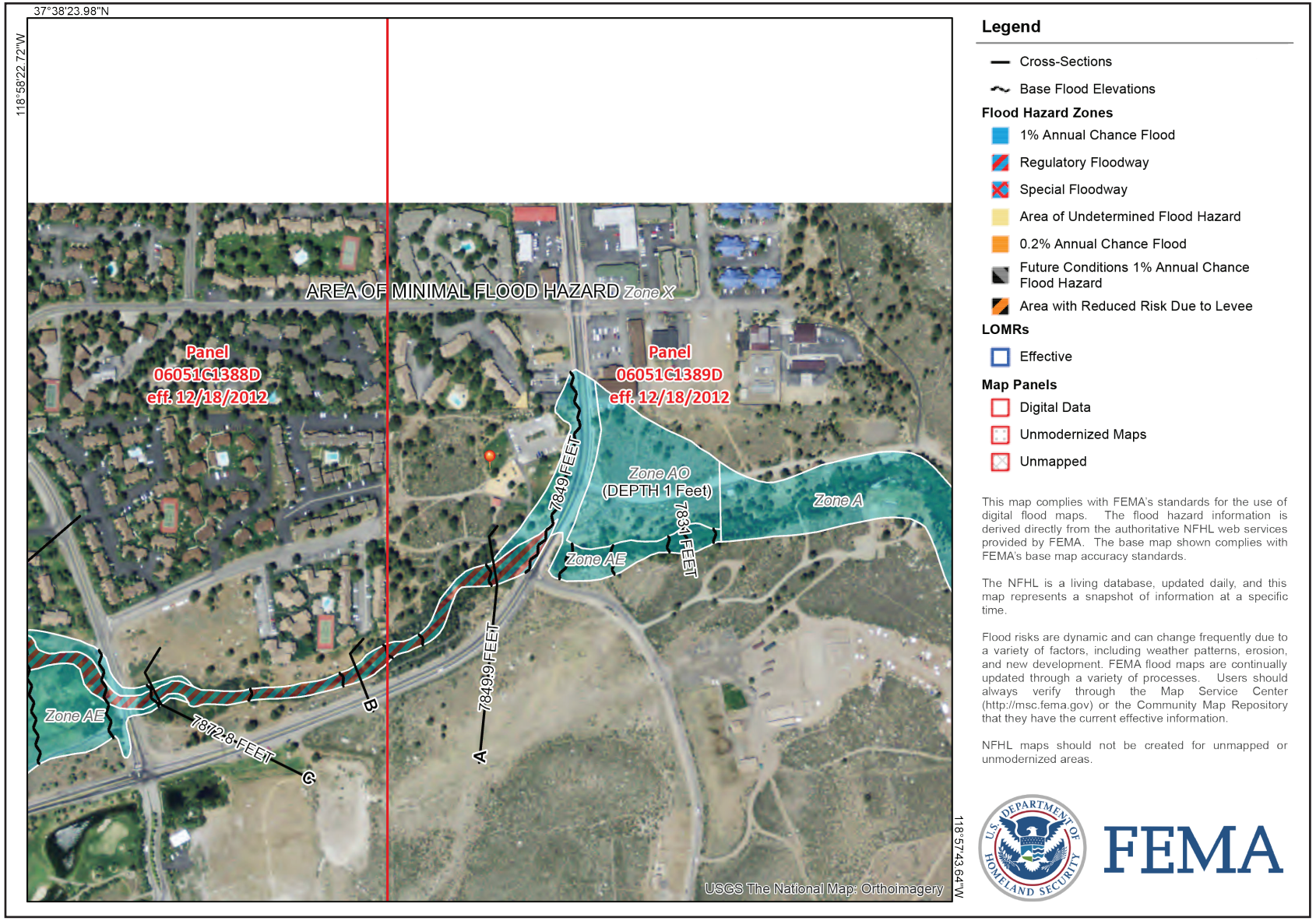
It is noted that this semi natural vegetated depression also takes in other off-site flows, other than the project site. There is a 12-inch corrugated metal pipe (CMP) that crosses the Mammoth Creek Park West driveway entrance and spills into this depression, as well as three storm drain inlets (located in the curb line of Old Mammoth Road) that convey water through piping under the street to the same area.

FLOODPLAIN MAPPING

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), portions of the project site are located in the 100-year flood zone[2]; refer to Exhibit 5.9-2, *FEMA Flood Zones*. These areas, as depicted on Exhibit 5.9-2, are situated along the eastern and southeastern portions of the project site. Currently, uses in the 100-year flood zone include the driveway serving the project site, the rock garden located to the south of the driveway, and vacant land at the northeast corner of the project site.

[1] Correspondence with Haislip Hayes, PE, Engineering Manager Town of Mammoth Lakes, conducted via e-mail on October 4, 2016.

[2] Federal Emergency Management Agency, *Flood Insurance Rate Map*, Map Number 06051C1389D, Panel 1389 of 2050, effective date February 18, 2011.



Source: U.S. Department of Homeland Security, FEMA, dated October 11, 2016.

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ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

FEMA Flood Zones

Exhibit 5.9-2

EXISTING STORM WATER QUALITY CONDITIONS

Nonpoint Source Pollutants

A net effect of urbanization can be to increase pollutant export over naturally occurring conditions. The impact of the higher export affects the adjacent streams and also the downstream receiving waters. However, an important consideration in evaluating storm water quality is to assess whether the beneficial use to the receiving waters is impaired. Nonpoint source pollutants have been characterized by the following major categories in order to assist in determining the pertinent data and its use. Receiving waters can assimilate a limited quantity of various constituent elements; however, there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. Standard water quality categories of typical urbanization impacts are:

- *Sediment*. Sediment is made up of tiny soil particles that are washed or blown into surface waters. It is the major pollutant by volume in surface water. Suspended soil particles can cause the water to look cloudy or turbid. The fine sediment particles also act as a vehicle to transport other pollutants, including nutrients, trace metals, and hydrocarbons. Construction sites are the largest source of sediment for urban areas under development. Another major source of sediment is streambank erosion, which may be accelerated by increases in peak rates and volumes of run-off due to urbanization.

- *Nutrients*. Nutrients are a major concern for surface water quality, especially phosphorous and nitrogen, which can cause algal blooms and excessive vegetative growth. Of the two, phosphorus is usually the limiting nutrient that controls the growth of algae in lakes. The orthophosphorous form of phosphorus is readily available for plant growth. The ammonium form of nitrogen can also have severe effects on surface water quality. The ammonium is converted to nitrate and nitrite forms of nitrogen in a process called nitrification. This process consumes large amounts of oxygen, which can impair the dissolved oxygen levels in water. The nitrate form of nitrogen is very soluble and is found naturally at low levels in water. When nitrogen fertilizer is applied to lawns or other areas in excess of plant needs, nitrates can leach below the root zone, eventually reaching ground water. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. As a general rule of thumb, nutrient export is greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are: 1) surface algal scums; 2) water discolorations; 3) odors; 4) toxic releases; and 5) overgrowth of plants. Common measures for nutrients are total nitrogen, organic nitrogen, total Kjeldahl nitrogen (TKN), nitrate, ammonia, total phosphate, and total organic carbon (TOC).

- *Trace Metals*. Trace metals are primarily a concern because of their toxic effects on aquatic life, and their potential to contaminate drinking water supplies. The most common trace metals found in urban run-off are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban run-off are attached to sediment; this effectively reduces the level, which is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with sediment settle out rapidly and accumulate in the soils. Urban run-off events typically occur

over a shorter duration, reducing the amount of exposure, which could be toxic to the aquatic environment. The toxicity of trace metals in run-off varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

- *Oxygen-Demanding Substances*. Aquatic life is dependent on the dissolved oxygen in the water. When organic matter is consumed by microorganisms, dissolved oxygen is consumed in the process. A rainfall event can deposit large quantities of oxygen-demanding substance in lakes and streams. The biochemical oxygen demand of typical urban run-off is on the same order of magnitude as the effluent from an effective secondary wastewater treatment plant. A problem from low dissolved oxygen (DO) results when the rate of oxygen-demanding material exceeds the rate of replenishment. Oxygen demand is estimated by direct measure of DO and indirect measures such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), oils and greases, and TOC.

- *Bacteria*. Bacteria levels in undiluted urban run-off exceed public health standards for water contact recreation almost without exception. Studies have found that total coliform counts exceeded the U.S. Environmental Protection Agency's (EPA) water quality criteria at almost every site and almost every time it rained. The coliform bacteria that are detected may not be a health risk by themselves, but are often associated with human pathogens.

- *Oil and Grease*. Oil and grease contain a wide variety of hydrocarbons, some of which could be toxic to aquatic life in low concentrations. These materials initially float on water and create the familiar rainbow-colored film. Hydrocarbons have a strong affinity for sediment and quickly become absorbed to it. The major source of hydrocarbons in urban run-off is through leakage of crankcase oil and other lubricating agents from automobiles. Hydrocarbon levels are highest in the run-off from parking lots, roads, and service stations. Residential land uses generate less hydrocarbon export, although illegal disposal of waste oil into storm water can be a local problem.

- *Other Toxic Chemicals*. Priority pollutants are generally related to hazardous wastes or toxic chemicals and can be sometimes detected in storm water. Priority pollutant scans have been conducted in previous studies of urban run-off, which evaluated the presence of over 120 toxic chemicals and compounds. The scans rarely revealed toxins that exceeded the current safety criteria. The urban run-off scans were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (with the possible exception of illegally disposed or applied household hazardous wastes). Measures of priority pollutants in storm water include: 1) phthalate (plasticizer compound); 2) phenols and creosols (wood preservatives); 3) pesticides and herbicides; 4) oils and greases; and 5) metals.

PHYSICAL CHARACTERISTICS OF SURFACE WATER QUALITY

Standard parameters, which can assess the quality of storm water, provide a method of measuring impairment. A background of these typical characteristics assists in understanding water quality requirements. The quantity of a material in the environment and its characteristics determine the degree of availability as a pollutant in surface run-off. In an urban environment, the quantity of certain pollutants in the environment is a function of the intensity of the land use. For instance, a

high density of automobile traffic makes a number of potential pollutants (such as lead and hydrocarbons) more available. The availability of a material, such as a fertilizer, is a function of the quantity and the manner in which it is applied. Applying fertilizer in quantities that exceed plant needs leaves the excess nutrients available for loss to surface or ground water.

The physical properties and chemical constituents of water traditionally have served as the primary means for monitoring and evaluating water quality. Evaluating the condition of water through a water quality standard refers to its physical, chemical, or biological characteristics. Water quality parameters for storm water comprise a long list and are classified in many ways. Typically, the concentration of an urban pollutant, rather than the annual load of that pollutant, is required to assess a water quality problem. Some of the physical, chemical, or biological characteristics that evaluate the quality of the surface run-off are listed below.

- *Dissolved Oxygen*. DO in the water has a pronounced effect on the aquatic organisms and the chemical reactions that occur. It is one of the most important biological water quality characteristics in the aquatic environment. The DO concentration of a water body is determined by the solubility of oxygen, which is inversely related to water temperature, pressure, and biological activity. DO is a transient property that can fluctuate rapidly in time and space, and represents the status of the water system at a particular point and time of sampling. The decomposition of organic debris in water is a slow process, as are the resulting changes in oxygen status. The oxygen demand is an indication of the pollutant load and includes measurements of biochemical oxygen demand or chemical oxygen demand.

- *Biochemical Oxygen Demand*. The BOD is an index of the oxygen-demanding properties of the biodegradable material in the water. Samples are taken from the field and incubated in the laboratory at 20°C, after which the residual dissolved oxygen is measured. The BOD value commonly referenced is the standard 5-day values. These values are useful in assessing stream pollution loads and for comparison purposes.

- *Chemical Oxygen Demand*. The COD is a measure of the pollutant loading in terms of complete chemical oxidation using strong oxidizing agents. It can be determined quickly because it does not rely on bacteriological actions as with BOD. COD does not necessarily provide a good index of oxygen demanding properties in natural waters.

- *Total Dissolved Solids*. Total dissolved solids (TDS) concentration is determined by evaporation of a filtered sample to obtain residue whose weight is divided by the sample volume. The TDS of natural waters varies widely. There are several reasons why TDS is an important indicator of water quality. Dissolved solids affect the ionic bonding strength related to other pollutants such as metals in the water. TDS are also a major determinant of aquatic habitat. TDS affects saturation concentration of dissolved oxygen and influences the ability of a water body to assimilate wastes. Eutrophication rates depend on TDS.

- *pH*. The pH of water is the negative log, base 10, of the hydrogen ion (H^+) activity. A pH of 7 is neutral; a pH greater than 7 indicates alkaline water; a pH less than 7 represents acidic water. In natural water, carbon dioxide reactions are some of the most important in establishing pH. The pH at any one time is an indication of the balance of chemical equilibrium in water and affects the availability of certain chemicals or nutrients in water for

uptake by plants. The pH of water directly affects fish and other aquatic life; generally, toxic limits are pH values less than 4.8 and greater than 9.2.

- *Alkalinity*. Alkalinity is the opposite of acidity, representing the capacity of water to neutralize acid. Alkalinity is also linked to pH and is caused by the presence of carbonate, bicarbonate, and hydroxide, which are formed when carbon dioxide is dissolved. A high alkalinity is associated with a high pH and excessive solids. Most streams have alkalinities less than 200 milligrams per liter (mg/l). Ranges of alkalinity of 100-200 mg/l seem to support well-diversified aquatic life.

- *Specific Conductance*. The specific conductivity of water, or its ability to conduct an electric current, is related to the total dissolved ionic solids. Long term monitoring of project waters can develop a relationship between specific conductivity and TDS. Its measurement is quick and inexpensive and can be used to approximate TDS. Specific conductivities in excess of 2000 microohms per centimeter (µohms/cm) indicate a TDS level too high for most freshwater fish.

- *Turbidity*. The clarity of water is an important indicator of water quality that relates to the alkalinity of photosynthetic light to penetrate. Turbidity is an indicator of the property of water that causes light to become scattered or absorbed. Turbidity is caused by suspended clays and other organic particles. It can be used as an indicator of certain water quality constituents, such as predicting sediment concentrations.

- *Nitrogen*. Sources of nitrogen in storm water are from the additions of organic matter to water bodies or chemical additions. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Excessive nitrogen can lead to eutrophication since nitrification consumes dissolved oxygen in the water. Nitrogen occurs in many forms. Organic nitrogen breaks down into ammonia, which eventually becomes oxidized to nitrate-nitrogen, a form available for plants. High concentrations of nitrate-nitrogen (N/N) in water can stimulate growth of algae and other aquatic plants, but if phosphorus (P) is present, only about 0.30 mg/l of nitrate-nitrogen is needed for algal blooms. Some fish life can be affected when nitrate-nitrogen exceeds 4.2 mg/l. There are a number of ways to measure the various forms of aquatic nitrogen. Typical measurements of nitrogen include Kjeldahl nitrogen (organic nitrogen plus ammonia), ammonia, nitrite plus nitrate, nitrite, and nitrogen in plants. The principal water quality criterion for nitrogen focuses on nitrate and ammonia.

- *Phosphorus*. Phosphorus is an important component of organic matter. In many water bodies, phosphorus is the limiting nutrient that prevents additional biological activity from occurring. The origin of this constituent in urban storm water discharge is generally from fertilizers and other industrial products. Orthophosphate is soluble and is considered to be the only biologically available form of phosphorus. Since phosphorus strongly associates with solid particles and is a significant part of organic material, sediments influence concentration in water and are an important component of the phosphorus cycle in streams. Important methods of measurement include detecting orthophosphate and total phosphorus.

Existing Storm Water Quality Conditions

Mammoth Creek is classified as an impaired water body and has been placed on the 303(d) list of impaired waters for the following pollutants: manganese, mercury, and total dissolved solids (TDS). According to the Lahontan Regional Water Quality Control Board (RWQCB), manganese and mercury impairment are caused by natural sources, whereas the source of TDS are unknown.

A Total Maximum Daily Load (TMDL) sets a limit for the total amount of a particular pollutant that can be discharged to a waterbody, such that the pollutant loads from all sources would not impair the designated beneficial uses of the waterbody. The timeframe for compliance with TMDL targets varies, but may take many years. TMDLs often include a compliance schedule, identifying interim and final targets. The Lahontan RWQCB has not set any TMDLs for these pollutants of concern within this segment of Mammoth Creek.

As discussed above, the project site is currently developed with passive and active recreational uses and a surface parking lot. These uses are assumed to generate suspended solid/sediments, nutrients, heavy metals, pathogens, pesticides, oil and grease, toxic organic compounds, and trash and debris.

Beneficial Uses

The Lahontan RWQCB adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, and local water quality conditions and problems. The Basin Plan identifies beneficial uses for waters within the Lahontan Region. A beneficial use is one of the various ways that water can be used for the benefit of people and/or wildlife. Although more than one beneficial use may be identified for a given waterbody, the most sensitive use must be protected. The Basin Plan identifies the following beneficial uses for Mammoth Creek in the vicinity of the project site[3]:

- *Cold Freshwater Habitat (COLD)*. Beneficial uses of waters that support cold water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.

- *Commercial and Sportfishing (COMM)*. Beneficial uses of waters used for commercial or recreational collection of fish or other organisms including, but not limited to, uses involving organisms intended for human consumption.

- *Municipal and Domestic Supply (MUN)*. Beneficial uses of waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply.

- *Water Contact Recreation (REC-1)*. Beneficial uses of waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, and use of natural hot springs.

[3] U.S. Environmental Protection Agency, *Waterbody Quality Assessment Report*, Water Quality Assessment and TMDL Information, https://ofmpub.epa.gov/waters10/attains_waterbody.control?p_au_id=CAR60310051200808 16102743&p_cycle=2010, accessed September 8, 2016.

5.9.2 REGULATORY SETTING

This section discusses the Federal, State, and local drainage policies and requirements applicable to the project site.

FEDERAL LEVEL

Federal Clean Water Act (Section 404)

The State Water Resources Control Board (SWRCB) and the Lahontan RWQCB enforce State of California statutes, equivalent to or more stringent than the federal statutes, pertaining to Section 404 of Federal Clean Water Act (CWA). The Lahontan RWQCB is responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters in their region. The Lahontan RWQCB is also responsible for protecting surface and ground waters from both point and non-point sources of pollution.

National Pollution Discharge Elimination System

The 1972 amendments to the CWA prohibit the discharge of any pollutant to navigable waters of the United States from a point source unless the discharge is authorized by a National Pollution Discharge Elimination System (NPDES) Permit. While the original CWA focused on point source discharges (defined pipes and outfalls), stormwater discharges were added to the scope of the law by Congress in 1987. The EPA adopted final regulations that established Phase I stormwater discharge control requirements for the NPDES program in 1990. These regulations required large municipalities and specific industrial sites to obtain stormwater discharge permits under the NPDES program. In addition, these regulations required that stormwater discharge permits be issued to large construction activities consisting of five acres or more of land.

In 2003, the Phase II NPDES program requirements took effect, regulating nonpoint source discharges from all construction sites one acre or more in size and expanding the permit requirements to smaller municipalities. In California, the NPDES program is administered by the SWRCB through the nine Regional Water Control Boards (RWQCBs). Because the Town of Mammoth Lakes is a small community, it falls below the threshold for the Phase II NPDES program's municipal stormwater regulations. Therefore, the Town's municipal storm drainage system is not required to be covered by an NPDES permit. However, under a Memorandum of Understanding (MOU) with the Lahontan RWQCB (MOU No. 6-91-926), the Town administers erosion control measures on a project by project basis to make sure that they are in place and operational. Further, the construction activities component of the Phase II NPDES program does apply to construction sites that disturb one acre or more within the Town.

National Flood Insurance Program

With the passage of the National Flood Insurance Act of 1968, the U.S. Congress established the National Flood Insurance Program (NFIP), enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is

based on an agreement between communities and the federal government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the federal government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.

The Flood Disaster Protection Act of 1973 prohibits federal agencies from providing financial assistance for acquisition or construction of buildings and certain disaster assistance in the floodplains in any community that did not participate in the NFIP by July 1, 1975, or within 1 year of being identified as flood-prone. This law required federal agencies and federally insured or regulated lenders to require flood insurance on all grants and loans for acquisition or construction of buildings in designated Special Flood Hazard Areas (SFHAs) in communities that participate in the NFIP. This requirement is referred to as the Mandatory Flood Insurance Purchase Requirement. The SFHA is that land within the floodplain of a community subject to a one-percent or greater chance of flooding in any given year, commonly referred to as the 100-year flood. The one-percent-annual-chance flood (or 100-year flood) represents a magnitude and frequency that has a statistical probability of being equaled or exceeded in any given year, the 100-year flood has a 26-percent (or 1 in 4) chance of occurring over a 30-year period.

In 1994, Congress amended the 1968 Act and the 1973 Act with the National Flood Insurance Reform Act (NFIRA). The 1994 Act included measures to (1) increase compliance by mortgage lenders, (2) increase the amount of flood insurance coverage that can be purchased, (3) provide flood insurance coverage for the cost of complying with floodplain management regulations by individual property owners, (4) establish a Flood Mitigation Assistance grant program to assist States and communities to develop mitigation plans and implement measures to reduce future flood damages to structures, (5) codify the NFIP's Community Rating System, and (6) require FEMA to assess its flood hazard map inventory at least once every five years.

STATE LEVEL

California Toxics Rule

The California Toxics Rule (CTR) is a federal regulation issued by the EPA providing water quality criteria for potentially toxic constituents in receiving waters with human health or aquatic life designated uses in the State of California. CTR criteria are applicable to the receiving water body and therefore must be calculated based upon the probable hardness values of the receiving waters for evaluation of acute (and chronic) toxicity criteria. At higher hardness values for the receiving water, copper, lead, and zinc are more likely to be complexed (bound with) components in the water column. This in turn reduces the bioavailability and resulting potential toxicity of these metals.

California Porter-Cologne Act

The CWA places the primary responsibility for the control of surface water pollution and for planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs and allows the EPA to withdraw control from states with inadequate implementation mechanisms.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its state water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

California Department of Fish and Game Code

Section 1602 of the California Department of Fish and Game Code requires any entity (e.g., person, State or local government agency, or public utility) who proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, it must first notify the California Department of Fish and Wildlife (CDFW) of the proposed project. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support, or have supported, riparian vegetation. The CDFW's jurisdiction extends to the river, stream, or lake's top of bank, or to the outer edge of the adjacent riparian vegetation (i.e., riparian "drip line"), whichever is greater. If the CDFW determines that a proposed project may substantially adversely affect existing resources, a Lake or Streambed Alteration Agreement would be required.

State Water Resources Control Board

The SWRCB administers water rights, water pollution control, and water quality functions throughout the State, while the RWQCBs conduct planning, permitting, and enforcement activities. For the proposed project, the NPDES permit is divided into two parts: construction and post-construction. The construction permitting is administered by the SWRCB, while the post-construction permitting is administered by the RWQCB.

In 1992, the SWRCB adopted the General Construction Activity Storm Water Permit (GCASWP or General Permit), which is ". . . required for all stormwater discharges associated with construction activity where clearing, grading, and excavation results in a land disturbance of 5 or more acres." However, by Modification of Water Quality Order 99-08-DWQ (approved by Motion on December 2, 2002) and consistent with the Phase II NPDES program for stormwater, the SWRCB lowered the threshold acreage of soil disturbance requiring permit coverage from 5 acres to 1 acre. Since development projected to occur as part of the project would fall within these criteria, this project must be covered under the General Permit. In order to be covered under the General Permit, the

project applicant for each individual project to be developed within the project area must submit a Notice of Intent (NOI) to the SWRCB. For coordinated development proposals, a single NOI can be submitted.

The General Permit requires all owners of land where construction activities occur (i.e., dischargers) to:

- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP); and
- Perform inspections of stormwater pollution prevention measures (control practices).

The General Permit authorizes the discharge of stormwater associated with construction activity from construction sites. However, it prohibits the discharge of materials other than stormwater and all discharges which contain hazardous substances in excess of reportable quantities established at Title 40 Code of Federal Regulations Sections 117.3 or 302.4 unless a separate NPDES permit has been issued to regulate those discharges.

The General Permit requires development and implementation of a SWPPP, emphasizing Best Management Practices (BMPs), which are defined as "schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States." The SWPPP has two major objectives:

- To help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and

- To describe and ensure the implementation of practices to reduce sediment and other pollutants in stormwater discharges.

In addition, dischargers are required to conduct inspections before and after storm events and to annually certify that they are in compliance with the General Permit. The General Permit is currently being revised and reissued to include numeric action levels and numeric affluent limits for certain pollutants, additional BMP, and other measures to further minimize potential impacts associated with construction activities.

REGIONAL LEVEL

Lahontan Regional Water Quality Control Board

The Town is within the jurisdictional boundaries of the Lahontan RWQCB. One of nine regional boards in the state, the RWQCB develops and enforces water quality objectives and implementation plans that safeguard the quality of water resources in its region. Its duties include developing "basic plans" for its hydrologic area, issuing waste discharge requirements, taking enforcement action against violators, and monitoring water quality. In March 1995, a *Water Quality Control Plan for the Lahontan Region, North and South Basins* (Basin Plan), adopted by the RWQCB, took effect. The Basin Plan incorporates language from and replaces three earlier plans: the Lahontan Regional Board's

1975 North and South Lahontan Basin Plans, as amended through 1991, and the State Water Resources Control Board's 1980 *Lake Tahoe Basin Water Quality Plan*, as amended through 1989. The earlier plans were combined into a single plan which was adopted by the Lahontan Regional Board in November 1994 and which took effect upon approval by the California Office of Administrative Law in March 1995. It should be noted that a 2015 version of the Basin Plan is now available, incorporating amendments approved between 1995 and 2015.[4] These amendments do not directly affect any of the local waterbodies discussed in this section.

The Basin Plan outlines policies and regulations for municipal wastewater, treatment, disposal, and reclamation. The Basin Plan also establishes specific erosion and sediment control guidelines for land developments within the Town. These standards are designed to provide developers with a uniform approach for the design and installation of adequate systems to control erosion and mitigate urban drainage impacts from the Town in an effort to prevent the degradation of waters of Mammoth Creek and Hot Creek. Under a MOU with the Lahontan RWQCB (MOU No. 6-91-926), the Town administers erosion control measures on a project by project basis to make sure that they are in place and operational.

Non-Point Source Pollution Control Program

The purpose of the Non-Point Source Pollution (NPS) Control Program (NPS Program Plan) is to improve the State's ability to effectively manage NPS pollution and conform to the requirements of the CWA and the Federal Coastal Zone Act Reauthorization Amendments of 1990. These documents were developed by staff of the SWRCB's Division of Water Quality and California Coastal Commission (CCC), in coordination with the RWQCBs and staff from over 20 other State agencies.

Assembly Bill 3030

In 1992, the California Legislature approved AB-3030 to allow local agencies whose service areas overlie a state designated groundwater basin to develop and implement groundwater management plans (GMP). The law also stated that a local agency might not manage ground water pursuant to AB-3030 within a service area of another local agency without the agreement of that entity. In effect, the purpose of the GMP was two-fold:

- Outline the role of the local agency in managing the local groundwater resource; and
- Maximize the water supply and to protect the quality of the supply.

Components of the GMP include the following:

- Control of saline water intrusion;
- Identification and management of wellhead protection areas and recharge areas;
- Regulate migration of contaminated ground water;
- Administer well abandonment and destruction programs;
- Mitigate overdraft conditions;

[4] State Water Resources Control Board, *Fully Approved Basin Plan Amendments*, http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/docs/bpa2014x.pdf, accessed December 27, 2016.

- Replenish ground water extracted by producers;
- Monitor ground water levels and storage;
- Facilitate conjunctive uses;
- Identification policies for well construction;
- Construct/operate contaminated ground water remediation, recharge, storage, conservation, water recycling and extraction;
- Develop/maintain relationships with state/federal regulatory agencies; and
- Review land use plans and coordinate with land use planning agencies to assess activities that may create a risk of contaminating ground water.

LOCAL LEVEL

Town of Mammoth Lakes General Plan

Town policies pertaining to hydrology and water quality are contained in the Resource Management and Conservation and Public Health and Safety Elements of the *Town of Mammoth Lakes General Plan 2007* (General Plan), adopted on August 15, 2007. The intent of the Resource Management and Conservation Element is to establish and emphasize our stewardship of the community's natural resources. These policies include, but are not limited to, the following:

- Support efforts to regulate in-stream flows and lake levels to maintain fishery and other wildlife habitat (R.1.G.);

- Work with MCWD to ensure that groundwater is not over-drafted and does not cause negative environmental impacts to resources such as surface water, springs and native vegetation (R.1.H.);

- Wisely manage natural and historic drainage patterns (R.5.A.);

- Require parking lot storm drainage systems to include facilities to separate oils and silt from storm water where practical and when warranted by the size of the project (R.5.B.); and

- Prevent erosion, siltation, and flooding by requiring use of Best Management Practices (BMPs) during and after construction (R.5.C.).

The intent of the Public Health and Safety Element is to improve the quality of life to encourage people to live and work in Mammoth Lakes. The policy applicable to hydrology and water quality states that the quality of life may be improved by restricting development in flood areas and near perimeter of natural water bodies (S.3.K.).

Town of Mammoth Lakes Storm Drain Master Plan Update

In May 2005, the Town updated its 1984 Storm Drain Master Plan (Storm Drain Master Plan). The Storm Drain Master Plan was primarily formulated to control the existing drainage and erosion problems by establishing a program to rehabilitate existing development areas, while also providing policies, standards, and procedures to guide future development. The Storm Drain Master Plan identifies several existing drainage problems in the Town including the following:

- Lack of a stable drainage system in much of the community located within the Urban Growth Boundary;

- Roadside and slope erosion due to uncontrolled runoff in poorly defined channels from steep areas;

- Drainage that crosses private property, and development in or near the natural drainage channels;

- Undersized culverts and channels; and

- Discharge of runoff from developed areas directly to Mammoth Creek resulting in high sediment loads to the creek and water quality degradation.

In response to these problems, the Storm Drain Master Plan identifies general drainage improvements throughout the Town to remedy existing drainage problems and accommodate projected buildout of the Town. Construction of the Storm Drain Master Plan facilities can be spread out over a number of years. This would allow facilities to be built as they are needed or as further development occurs. Three priority levels have been established in the Storm Drain Master Plan for construction of the improvements as summarized below:

- Priority 1 improvements focus primarily on eliminating existing drainage and erosion control problems;

- Priority 2 improvements include solutions to less critical drainage problems and facilities required to provide adequate drainage trunk capacity for the ultimate development; and

- Priority 3 improvements include the remainder of Storm Drain Master Plan facilities, which are principally improvements for local storm drainage.

The Storm Drain Master Plan strives to retain or improve natural streams where possible, rather than replacing them with storm pipes for aesthetic, economic, and functional purposes. Storm pipes would be placed in streets where feasible; however, some easements would be required on private property, primarily where existing development has occurred near stream zones. The updated Storm Drain Master Plan recommends the Town replace corrugated metal pipelines that failed to transmit the required 20-year flows, with pipes of the same size made of concrete, polyvinyl chloride (PVC), high-density polyethylene (HDPE), or other materials that do not have a rough texture.

The Storm Drain Master Plan also includes guidelines for erosion control for the Mammoth Lakes area. In an effort to remedy drainage and erosion problems, the erosion guidelines prescribe requirements that must be followed during all phases of developments involving soil disturbance on one-quarter acre or more. The erosion guidelines also provide a basis for consistent design of storm drainage and erosion control facilities.

The Storm Drain Master Plan inventories all of the existing storm drain pipe facilities and assesses the adequacy of storm drain system(s) under three general scenarios: 1) existing conditions, 2) future conditions, and 3) improved conditions. An improved condition is defined as the future condition

in conjunction with impacts due to the construction of a detention facility proposed as part of the Storm Drain Master Plan. In the future and improved scenarios, future land uses are considered to account for planned development. In all storm drain scenarios, the 20-year and 100-year return periods are considered.

The Storm Drain Master Plan applies two criteria to assess whether the existing stormwater conveyance pipelines are considered to be adequately sized: 1) each pipe is to have adequate capacity to convey the 20-year discharge; and 2) in the cases of storm drain flows under streets, the combined street capacity and storm drain capacity is to have the necessary capacity to convey the 100-year flow. In the case where inadequate pipes are encountered, the pipes would be identified and enlarged to meet the adequacy criteria for the future and improved condition scenarios. The drainage improvements would be primarily funded through payment of developer impact fees and would be constructed as needed or as further development occurs.

Stormwater Master Plan

The Town recognizes the impact stormwater runoff has on water resources; has identified erosion, drainage, and flooding issues affecting Town infrastructure; and is in need of a focused strategy for dealing with stormwater. Recently, the Town received a Proposition 84 Integrated Regional Water Management (IRWM) Planning Grant from the California Department of Water Resources (DWR) through the Inyo-Mono IRWM Program to develop the *Town of Mammoth Lakes Stormwater Master Plan 2015* (Stormwater Master Plan), adopted in 2015, to provide a strategy for dealing with the most pressing stormwater priorities. The Stormwater Master Plan includes a Stormwater Capital Improvement Program; Stormwater Operations and Maintenance Plan; Public Education and Outreach; Commercial, Industrial, and Residential Retrofit Program; and Construction Site Program.

Town of Mammoth Lakes Municipal Code

Municipal Code Chapter 12.04, *Construction and Encroachments in the Public Right of Way*, establishes encroachment permit requirements which are subject to enforcement procedures. The requirements help stabilize construction sites and reduce runoff velocities by preventing erosion and sedimentation. Municipal Code Chapter 12.08, *Land Clearing, Earthwork, and Drainage Facilities*, establishes requirements for earthwork on private and public property. The standards require protection of drainage paths and installation of devices capturing stormwater runoff at select sites. These requirements help prevent erosion of sediment and reduce runoff velocities. Municipal Code Chapter 15.08, *Construction Site Regulations*, require construction sites to protect drainage paths and control erosion from areas cleared of vegetation during construction. These requirements support the implementation of the Stormwater Master Plan by providing authority to regulate erosion and sedimentation from construction sites. Municipal Code Section 17.08.020, *Standards for All Development and Land Use, Grading and Clearing*, also requires a grading permit for any lot graded or cleared of vegetation. This section requires all construction and uses to comply with the Lahontan RWQCB requirements. This supports Stormwater Master Plan implementation by providing a mechanism to enforce erosion control and runoff quality requirements at construction sites.

Municipal Code Chapter 12.10, *Floodplain Management*, promotes the public health, safety, and general welfare, and minimizes public and private losses from flood conditions. Specifically, Section

12.10.040 requires a Development Permit for all construction/development within the 100-year flood zone. The applicant is required to provide plans depicting the nature, location, dimensions, and elevation of the area in question, as well as the existing or proposed structures, fill, storage of materials, and drainage facilities.

Municipal Code Chapter 13.20, *Storm Drainage Utility*, establishes a Storm Drainage Utility and fund operated by the Public Works Director in coordination with the Town Manager and Town Council. The fund is intended to be sustained by service charges, as well as connection, impact and permit fees. This fund serves to protect and repair the stormwater infrastructure, respond to impacts from flood events and assign responsibility for water quality entering into and discharging from the stormwater infrastructure. Municipal Code Chapter Subsection 15.16.081.C, *Special Fees, Storm Drainage Collection Facilities*, establishes a development impact fee for drainage collection facilities upon the issuance of building permits for development. These fees are deposited into the drainage fund. This supports Stormwater Master Plan implementation by establishing a revenue generating mechanism to support maintenance of the Town's stormwater infrastructure.

5.9.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Environmental Checklist form that was used during the preparation of this EIR. Accordingly, a project may create a significant adverse environmental impact if it would:

- Violate any water quality standards or waste discharge requirements (refer to Impact Statements HWQ-1 and HWQ-2);

- Substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted) (refer to Section 8.0, *Effects Found Not To Be Significant*);

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site (refer to Impact Statement HWQ-2);

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner that would result in flooding on- or off-site (refer to Impact Statement HWQ-3);

- Create or contribute to run-off water that would exceed the capacity of existing or planned storm water drainage systems or provision of substantial additional sources of polluted run-off (refer to Impact Statement HWQ-2);

- Otherwise substantially degrade water quality (refer to Impact Statements HWQ-1 and HWQ-2);

- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map (refer to Section 8.0, *Effects Found Not To Be Significant*);

- Place a structure within a 100-year flood hazard area that would impede or redirect flood flows (refer to Impact Statement HWQ-3);

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (refer to Impact Statement HWQ-3); and/or

- Result in inundation by seiche, tsunami, or mudflow (refer to Section 8.0, *Effects Found Not To Be Significant*).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." If a potentially significant impact cannot be reduced to a less than significant level through the application of goals, policies, standards, or mitigation, it is categorized as a significant and unavoidable impact. The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

5.9.4 IMPACTS AND MITIGATION MEASURES

WATER QUALITY – SHORT-TERM IMPACTS

HWQ-1 GRADING, EXCAVATION, AND CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT COULD IMPACT WATER QUALITY.

Impact Analysis: There are three sources of short-term construction-related storm water pollution associated with the proposed project, which include the following:

- Handling, storage, and disposal of construction materials containing pollutants;
- Maintenance and operation of construction equipment; and
- Earthmoving activities.

These sources, if not controlled, can generate soil erosion as well as on- and off-site transport via storm run-off or mechanical equipment. Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other vehicle-related fluids on the project site are also common sources of storm water pollution and soil contamination. Generally, standard safety precautions for handling and storing construction materials can adequately reduce the potential pollution of storm water by these materials. These types of standard procedures can be extended to non-hazardous storm water pollutants such as sawdust, concrete washout, and other wastes.

In addition, grading activities can greatly increase erosion processes, leading to impacts on storm drains and sediment loading to storm run-off flows. Two general strategies are recommended to prevent soil materials from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed, and secondly, the project site should be secured to control off-site transport of pollutants.

Surface Water Quality Conditions

The proposed project would be required to comply with the Town's Municipal Code Chapter 12.04, 12.08, 15.08, and 17.08.020. The construction site must be stabilized in order to reduce runoff velocities, preventing erosion and sedimentation from exiting the project site during construction. During grading activities, all drainage paths must be protected and devices to capture stormwater runoff during construction would be required, as necessary. The Contractor would be required to control erosion from areas cleared of vegetation during construction. The project would also be subject to a grading permit which would require compliance with the Lahontan RWQCB requirements during construction.

The project would be required to conform to the requirements of the SWPPP (Mitigation Measure HWQ-2), the NPDES Construction General Permit No. CAS000002 (2009-0009-DWQ [as amended by 2010-0014-DWQ and 2012-006-DWQ]) (Mitigation Measure HWQ-3), and utilize the Town of Mammoth Lakes MOU, which would require the implementation of construction period BMPs to minimize the potential for water quality impacts. Coverage under the General Permit must be obtained from the SWRCB prior to start of construction. The General Permit requires that non-stormwater discharges from construction sites be eliminated or reduced to the maximum extent practicable, that a SWPPP be developed governing construction activities for the proposed project, and that routine inspections be performed of all stormwater pollution prevention measures and control practices being used at the site, including inspections before and after storm events.

The SWPPP prepared for construction of the proposed project must also address hazardous materials storage and use, erosion and sedimentation control, and spill prevention and response in addition to identifying measures for preventing non-stormwater discharges to surface water drainages and the Town's storm drain system. In addition, provisions for implementing the land development policy and guidelines pertaining to the Mammoth Lakes area in the Basin Plan must be included in the SWPPP. The required implementation of the BMPs in the proposed project's SWPPP would ensure that project construction activities at the project site would not cause the violation of any water quality standards within Mammoth Creek. Thus, construction activities associated with the proposed project would have a less than significant impact on surface water quality with implementation of applicable mitigation measures.

Water Quality Standards

The significance criteria for the construction phase of the proposed project is implementation of BMPs consistent with Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology (BAT/BCT), as required by the Construction General Permit.

The proposed project would reduce or prevent erosion and sediment transport and transport of other potential pollutants from the project site during the construction phase through implementation of BMPs meeting BAT/BCT. This would prevent or minimize environmental

impacts and to ensure that discharges during the construction phase would not cause or contribute to any exceedance of water quality standards in the receiving waters. These BMPs would assure effective control of not only sediment discharge, but also of pollutants associated with sediments, such as and not limited to nutrients, heavy metals, and certain legacy pesticides.

Discharges of turbid runoff are primarily of concern during the construction phase of development. The SWPPP must contain sediment and erosion control BMPs pursuant to the General Construction Permit, and those BMPs must effectively control erosion and discharge of sediment, along with other pollutants, per the BAT/BCT standards. Additionally, fertilizer control and non-visible pollutant monitoring and trash control BMPs in the SWPPP would combine to help control turbidity during the construction phase.

Construction Runoff

During the construction phase, hydrocarbons in site runoff could result from construction equipment/vehicle fueling or spills. However, pursuant to the General Construction Permit, the Construction SWPPP would include BMPs that address proper handling of petroleum products on the construction site, such as proper petroleum product storage and spill response practices, and those BMPs must effectively prevent the release of hydrocarbons to runoff per the BAT/BCT standards. Trash and debris would be controlled through the SWPPP process, as BMPs for trash control (trash racks on outlets, catch basin inserts, good housekeeping practices, etc.) would be required. Compliance with the Permit Requirements and inclusion of these BMPs, meeting BAT/BCT, included in the SWPPP would mitigate impacts from trash and debris to a level less than significant.

Mitigation Measures:

HWQ-1 Prior to Grading Permit issuance and as part of the project's compliance with the National Pollution Discharge Elimination System (NPDES) requirements, a Notice of Intent (NOI) shall be prepared and submitted to the State Water Resources Quality Control Board (SWRCB), providing notification and intent to comply with the State of California General Permit.

HWQ-2 The proposed project shall conform to the requirements of an approved Storm Water Pollution Prevention Plan (SWPPP) (to be applied for during the Grading Plan process) and the National Pollution Discharge Elimination System (NPDES) Construction General Permit No. CAS000002 (2009-0009-DWQ [as amended by 2010-0014-DWQ and 2012-006-DWQ]), including implementation of all recommended Best Management Practices (BMPs), and utilize the Town of Mammoth Lakes Memorandum of Understanding (MOU) Resolution No. 6-91-926 issued by the State Water Resources Control Board.

HWQ-3 Upon completion of project construction, the Public Works Director shall submit a Notice of Termination (NOT) to the State Water Resources Quality Control Board to indicate that construction is completed.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

LONG-TERM OPERATIONAL IMPACTS

HWQ-2 IMPLEMENTATION OF THE PROPOSED PROJECT COULD POTENTIALLY RESULT IN INCREASED RUN-OFF AMOUNTS AND DEGRADED WATER QUALITY.

Impact Analysis: This section analyzes the proposed project conditions and compares them to the existing conditions to determine project impacts on drainage and runoff. The proposed conditions that were investigated include changes to land use, changes to drainage patterns, assumed storm drain configuration, and hydrology.

Proposed Land Use

The project proposes new community multi-use facilities at the project site, encompassing an ice rink (winter)/recreation/event area (RecZone) and additional storage and support space. In addition, the proposed project includes a complementary community center, reconfiguration and improvements to an existing playground to add accessible interactive components, restroom improvements, and additional surface parking spaces. The project would also include an active outdoor recreation area to the west of the new community multi-use facilities.

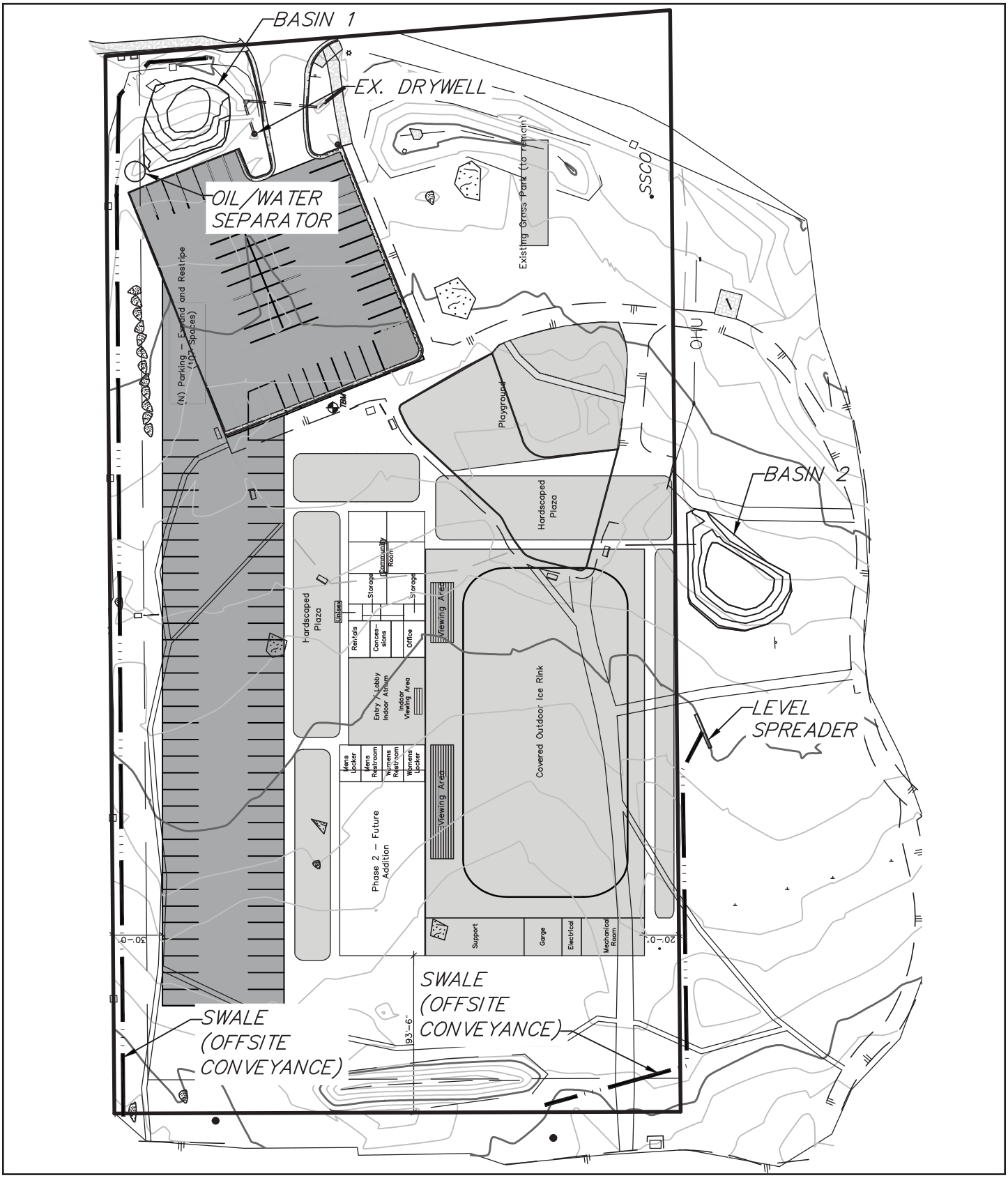
Proposed On-Site Drainage Facilities

The proposed development would result in approximately 101,695 square feet of new impervious surface, consisting of 48,244 square feet of roof area and 35,977 square feet of asphalt concrete (AC) pavement areas. Approximately 17,474 square feet of pavers or concrete hardscaping would also be installed to create plaza and walkways. The remaining area of the site is to be landscaped or left in a natural state (approximately 162,577 square feet). Thus, the proposed project would result in 62.5 percent of impervious surface (an increase of 56.1 percent compared to the existing 6.4 percent impervious surface at the site). The proposed grading for the project would maintain the existing drainage patterns on-site; refer to Exhibit 5.9-3, *Conceptual Drainage*.

Proposed Storm Water Drainage

Table 5.9-2, *Comparison of Existing and Proposed Flowrates*, provides a comparison of existing and proposed project conditions for the peak flow rates for the 25-year and 100-year storm event runoff for the project site. As indicated in Table 5.9-2, the proposed project would increase peak flow rates in the 20-year storm event by 2.6 cfs and the 100-year storm event by 3.8 cfs above existing conditions, potentially resulting in a significant impact to off-site tributary areas.

The proposed project would attenuate increased runoff on-site prior to discharge. On-site drainage improvements proposed include inlets at low points, storm drain pipes, and swales as necessary. The stormwater that flows through the surface parking lot would be directed to an oil/water separator in the northeast corner prior to flowing into the proposed retention system (as illustrated on Exhibit 5.9-3). Stormwater runoff collected from building's roof would be directed to the retention system just southeast of the improvements. The proposed retention basin system has been preliminary designed to contain a 20-year intensity storm for 1 hour. Two retention basins (Basin 1 and Basin 2 depicted on Exhibit 5.9-3) are proposed.



Source: Triad/Holmes Associates, *Preliminary Drainage Study*; dated August 12, 2016.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Conceptual Drainage

Exhibit 5.9-3

Table 5.9-2
Comparison of Existing and Proposed Flowrates

Area ID	Area (Acres)	Existing Flow (cfs)		Proposed Flow (cfs)		Change in Flow Conditions (cfs)
		20-year	100-year	20-year	100-year	
B1	2.5	2.9	4.8	2.9	4.8	0
B2	5.3	3.5	10.1	3.5	10.1	0
A	6.4	1.9	3.5	4.5	7.3	2.6 (20-year) 3.8 (100-year)
Notes: cfs = cubic feet per second						
Source: Triad/Holmes Associates, *Preliminary Drainage Study*, dated August 12, 2016.						

At minimum, these basins would store 3,000 cubic feet (cf) (Basin 1) and 4,100 cf (Basin 2), as required by the Lahontan RWQCB. Thus, the proposed storm drain facilities would be of proper size to retain the additional surface water flows created by the project. However, these storm drain facilities are preliminary and would be subject to change during final design. Thus, the project would be subject to Mitigation Measure HWQ-4, which would identify and implement storm drainage routing and conveyance infrastructure components prior to submittal of grading plans. The design, sizing, and location of these drainage components would be subject to review and approval by the Public Works Director and Town Engineer prior to the issuance of Grading or Building Permits.

In order to ensure that these storm drain facilities are properly maintained, the Town would also be required to implement a Storm Drain Facilities Maintenance Plan (Maintenance Plan) (Mitigation Measure HWQ-5) in order to ensure continued efficiency of proposed storm drain facilities. Particular items requiring maintenance would include, but not be limited to, cleaning of the grates, removal of foreign materials from storm drainage pipes, maintenance to outlet facilities, and repairs to damaged facilities. Any storm drain pipe with a slope of less than 0.5 percent would be identified and more frequent maintenance would be required in order to ensure efficiency of these low-incline facilities. Further, the Maintenance Plan would ensure that snow removal activities conducted near proposed storm drain facilities do not restrict drainage collection in gutters, inlets, and flow paths.

In conclusion, with implementation of the proposed storm drain facilities and compliance with Mitigation Measures HWQ-4 and HWQ-5, potential impacts associated with the increase in runoff, including potential increased erosion, would be reduced to less than significant levels.

Storm Water Quality

Activities associated with operation of the project would generate substances that could degrade the quality of water runoff, particularly vehicle-related pollutants. The deposition of certain chemicals by cars in the parking areas could have the potential to contribute metals, oil and grease, solvents, phosphates, hydrocarbons, and suspended solids to surface water flows. However, impacts to water quality generated from project operation can be reduced through the implementation of proposed BMPs designed to protect water quality in receiving water bodies. The project currently proposes BMPs that would be employed for the project, which include an oil/water separator and retention basins designed to filter runoff on the project site. The additional BMPs, if necessary, would be included upon finalizing grading/improvement plans (refer to Mitigation Measure HWQ-6).

Additionally, increased runoff can contribute to increased soil erosion. Soil erosion contributes to decreased water quality. However, as the project proposes storm drain facilities that would filter runoff, soil erosion would be minimized through infiltration. The facilities would be finalized in the grading/improvement plans (refer to Mitigation Measure HWQ-4). Mitigation Measure HWQ-5 would also ensure that the storm drain facilities are properly maintained during operation. Compliance with the Mitigation Measures HWQ-4 through HWQ-6 would reduce potentially significant impacts on receiving water quality in Mammoth Creek resulting from project operation to acceptable levels. As such, impacts related to operational water quality would be less than significant.

Mitigation Measures:

HWQ-4 Prior to submittal of Grading Plans, the Town shall identify and implement a suite of storm drainage routing and conveyance infrastructure components designed to retain additional surface water flows prior to discharge. The design, sizing, and location of these drainage components shall be subject to review and approval by the Town. Implementation of this storm drainage infrastructure shall be approved by the Public Works Director and Town Engineer prior to the issuance of Grading or Building Permits.

HWQ-5 A Storm Drain Facilities Maintenance Plan (Maintenance Plan) shall be prepared by the Town prior to issuance of a Certificate of Occupancy in order to ensure continued efficiency of proposed storm drain facilities. Implementation of the Maintenance Plan shall be overseen by the Public Works Director. Particular items requiring maintenance include, but are not limited to, cleaning of the grates, removal of foreign materials from storm drainage pipes, maintenance, as necessary, to outlet facilities, and repairs, as necessary, to damaged facilities. Any storm drain pipe with a slope of less than 0.5 percent shall be identified and more frequent maintenance shall be performed to ensure efficiency of these low-incline facilities. Further, the Maintenance Plan shall ensure that snow removal activities conducted near proposed storm drain facilities do not restrict drainage collection in gutters, inlets, and flow paths.

HWQ-6 Prior to submittal of grading plans, the Public Works Director shall identify and implement a suite of stormwater quality Best Management Practices (BMP) and Low Impact Development (LID) features to address the most likely sources of stormwater pollutants resulting from operation of the proposed project. Pollutant sources and pathways to be addressed by these BMPs include, but are not necessarily limited to, parking lots, maintenance areas, trash storage locations, rooftops, interior public and private roadways, and storm drain inlets. The design and location of these BMPs shall generally adhere to the standards associated with the Phase II NPDES stormwater permit program. Implementation of these BMPs shall be assured by the Community & Economic Development Manager and Town Engineer prior to the issuance of Grading or Building Permits.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

FLOODING

HWQ-3 THE PROJECT SITE IS SUBJECT TO FLOODING WITHIN THE 100-YEAR FLOOD ZONE AND COULD EXPOSE PEOPLE OR STRUCTURES TO FLOODING.

Impact Analysis: A portion of the project site is located in an area that is classified by FEMA as a 100-year flood zone; depicted on Exhibit 5.9-2. However, as shown on Exhibit 5.9-2 and Exhibit 3-4, *Site Plan*, those areas currently inundated by the 100-year flood zone (the existing rock garden, access driveway, and vacant land in the northeast corner of the site), would remain upon completion of the proposed project. The project would not result in the construction of any habitable structures within the 100-year flood zone. Additionally, runoff in excess of existing flows would be retained on-site in the proposed retention facilities and these facilities would be designed to withstand the 100-year storm flows (as discussed in Impact Statement HWQ-2). Thus, the proposed project would not place structures within a 100-year flood hazard area or impede or redirect flood flows such that people or property would be exposed to flooding. As such, impacts associated with flooding would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.9.5 CUMULATIVE IMPACTS

The following discussions are included per topic area to determine whether a significant cumulative effect would occur.

- **GRADING, EXCAVATION, AND CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD POTENTIALLY IMPACT WATER QUALITY.**

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD POTENTIALLY RESULT IN INCREASED RUN-OFF AMOUNTS AND DEGRADED WATER QUALITY.**

Impact Analysis: Development of the proposed project, in conjunction with related cumulative projects, would result in the further expansion of urban uses within the Town and an increase in overall imperviousness and potential for stormwater pollution. As discussed above, the project site and the surrounding area primarily consist of a patchwork of undeveloped areas and developed impervious urbanized surfaces, and are served by existing storm drains that would be expanded in order to serve new development. It is likely that most of the cumulative projects would also contribute stormwater flows to the Town's storm drain system. Each individual related project would be required to submit a drainage analysis to the Town for review and approval prior to issuance of grading or building permits. Each drainage analysis must illustrate how peak flows generated from each related project site would be accommodated by the Town's existing and/or proposed storm drainage facilities. Where necessary, each related project would be required to

include retention or infiltration features designed to reduce the total rate and/or volume of runoff generated at its site. Therefore, cumulatively considerable impacts to the Town's existing or planned stormwater drainage system capacity would be less than significant.

In addition, per the Basin Plan, development on each site larger than 0.25 acre above the 7,000 foot elevation level would be subject to uniform policy guidelines designed to minimize the water quality impacts associated with proposed project construction to the maximum extent practicable. All related projects that disturb one acre or more must also obtain coverage under the General Construction Permit, including the preparation and submittal of a SWPPP to govern all construction activities associated with each project. As a result, with approval and implementation of site-specific SWPPPs and associated BMPs to address water quality, cumulative water quality and erosion/siltation impacts would be considered less than significant.

As discussed in Impact Statements HWQ-1 and HWQ-2, with implementation of the recommended Mitigation Measures HWQ-1 through HWQ-3, the proposed project would result in less than significant impacts during construction. Further, with compliance with Mitigation Measures HWQ-4 through HWQ-6, impacts related to increased surface water runoff and water quality would be reduced to less than significant levels. Thus, the proposed project would not significantly cumulatively contribute to impacts pertaining to hydrology or water quality.

Mitigation Measures: Refer to Mitigation Measures HWQ-1 through HWQ-6.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD EXPOSE PEOPLE OR STRUCTURES TO FLOODING.**

Impact Analysis: Cumulative development could occur within a 100-year flood zone. However, all future development in a 100-year flood zone would be subject to Municipal Code Chapter 12.10, which would require applicants to provide plans depicting the nature, location, dimensions, and elevation of the area in question, as well as the existing or proposed structures, fill, storage of materials, and drainage facilities on a project-by-project basis. Further, as discussed in Impact Statement HWQ-3, development of the proposed project would not result in significant impacts pertaining to exposing people or structures to flooding nor would the project substantially change flood flows. Thus, the project would not significantly cumulatively contribute to impacts pertaining to flooding.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.9.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No unavoidable significant impacts related to hydrology and water quality have been identified following implementation of the recommended mitigation measures.

6.0 Other CEQA Considerations

6.0 OTHER CEQA CONSIDERATIONS

6.1 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

Pursuant to Section 15126.2 of the CEQA Guidelines, following is a discussion of short-term uses of the environment and the maintenance and enhancement of long-term productivity. If the proposed project is approved and constructed, a variety of short- and long-term impacts would occur on a local level. During project grading and construction, portions of surrounding uses may be temporarily impacted by dust and noise. There may also be an increase in vehicle pollutant emissions caused by grading and construction activities. However, these disruptions would be temporary and may be avoided or lessened to a large degree through mitigation cited in this EIR and through compliance with the *Town of Mammoth Lakes Municipal Code* (Municipal Code); refer to Section 5.0, *Environmental Analysis*, and Section 8.0, *Effects Found Not To Be Significant*.

The proposed project would create long-term environmental consequences associated with a transition in land use from a passive park use to an active recreational use (i.e., the ice rink/RecZone, and flexible community facilities). Development of the proposed project and the subsequent long-term effects may impact the physical, aesthetic, and human environments. Long-term physical consequences of development include increased traffic volumes, increased noise from project-related mobile (traffic) and stationary (mechanical, sporting events, public announcement system, landscaping, etc.) sources, hydrology and water quality impacts, and increased energy and natural resource consumption. Incremental degradation of local and regional air quality would also occur as a result of mobile source emissions generated from project-related traffic, and stationary source emissions generated from the consumption of propane and electricity. However, as analyzed in Section 5.0, *Environmental Analysis*, and Section 8.0, *Effects Found Not To Be Significant*, impacts associated with the proposed project would be less than significant. Therefore, the proposed project would not have significant long-term implications in this regard.

6.2 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

According to Sections 15126(c) and 15126.2(c) of the *CEQA Guidelines,* an EIR is required to address any significant irreversible environmental changes that would occur should the proposed project be implemented. As stated in *CEQA Guidelines* Section 15126.2(c):

> *"[uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter likely, Primary impacts and, particularly, secondary impacts [such as highway improvement which provides access to a previously inaccessible area] generally commit future generations to similar uses. Also, irreversible damage can result*

from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

The project would consume limited, slowly renewable and non-renewable resources. This consumption would occur during the construction phase of the project and would continue throughout its operational lifetime. Project development would require a commitment of resources that would include: (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the project site. Project construction would require the consumption of resources that are not replenishable or which may renew so slowly as to be considered non-renewable. These resources would include the following construction supplies: lumber and other forest products; aggregate materials used in concrete and asphalt; metals; and water. Fossil fuels such as gasoline and oil would also be consumed in the use of construction vehicles and equipment.

The resources that would be committed during project operation would be similar to those currently consumed within the Town of Mammoth Lakes. These would include energy resources such as electricity and propane, petroleum-based fuels required for vehicle-trips, fossil fuels, and water. Fossil fuels would represent the primary energy source associated with both construction and ongoing operation of the project, and the existing, finite supplies of these natural resources would be incrementally reduced. Project operation would occur in accordance with Title 24, Part 6 of the California Code of Regulations, which sets forth conservation practices that would limit the amount of energy consumed by the project. However, the energy requirements associated with the project would, nonetheless, represent a long-term commitment of essentially non-renewable resources.

Limited use of potentially hazardous materials typical of recreational uses, including minor amounts of cleaning products along with the occasional use of pesticides and herbicides for landscape maintenance are the extent of materials anticipated to be utilized on-site. The use of these materials would be in small quantities and used, handled, stored, and disposed of in accordance with the manufacturer's instructions and applicable government regulations and standards. Compliance with these regulations and standards would serve to protect against significant and irreversible environmental change resulting from the accidental release of hazardous materials. Compliance with such regulations would serve to protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In summary, project construction and operation would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would limit the availability of these particular resource quantities for future generations or for other uses during the life of the project. However, continued use of such resources would be on a relatively small scale and consistent with regional and local growth forecasts in the area. As such, although irreversible environmental changes would result from the project, such changes would not be considered significant.

6.3 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires that an EIR analyze growth-inducing impacts of a project. Section 15126.2(d) requires that an EIR:

"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth [a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas], Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

POPULATION, HOUSING, AND EMPLOYMENT

Population

Mono County. The County encompasses approximately 3,030 square miles.[1] It is bordered by the State of Nevada to the northeast, Inyo County to the south, and the Counties of Fresno, Madera, Mariposa, Tuolumne, and Alpine to the west. As of May 2016, Mono County had a population of 13,721 people.[2] This represents an increase of approximately 7.4 percent over the County's January 2000 population of 12,770[3]; refer to Table 6-1, *Population Estimates*.

Table 6-1
Population Estimates

Year	Mono County	Town of Mammoth Lakes
Population		
2000[1]	12,770	7,035
2016[2]	13,721	8,024
Change	7.4%	14.0%

Sources:
1. State of California, Department of Finance, *E-8 Historical Population and Housing Estimates for Cities, Counties, and the State, 1990-2000*, http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-8/, accessed September 2, 2016.
2. State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark,* http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed September 2, 2016.

Town of Mammoth Lakes. The Town of Mammoth Lakes (Town) was incorporated in 1984 and remains the only incorporated jurisdiction within Mono County. The Town's Municipal Boundaries include approximately 25 square miles of land. Approximately 4.5 square miles are within the Urban

[1] Mono County's official website, http://www.monocounty.ca.gov/information.html, accessed September 2, 2016.

[2] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark,* http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed September 2, 2016.

[3] State of California, Department of Finance, *E-8 Historical Population and Housing Estimates for Cities, Counties, and the State, 1990-2000*, http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-8/, accessed September 2, 2016.

Growth Boundary (UGB). The Towns' population differs from other cities in that the majority of the Town's population consists of seasonal residents or visitors. The *Final Program Environmental Impact Report for the Town of Mammoth Lakes 2005 General Plan Update* (General Plan PEIR), dated May 2007, considers the persons at one time (PAOT) to account for seasonal residents, second homes, and visitors along with the permanent residents. Due to the resort nature of the Town, the actual population of the Town is always greater than the permanent population, particularly during peak season (winter).

The Town's January 2016 population was 8,024.[4] This represents an increase of approximately 14.0 percent over the Town's January 2000 population of 7,035.[5] Table 6-1 provides a summary of both 2000 and 2016 population estimates for Mono County and the Town of Mammoth Lakes.

Housing

Mono County. The County's housing stock was estimated to be 14,000 units in January 2016. This represents an increase of approximately 19.5 percent over the estimated 11,720 housing units reported in January 2000. The vacancy rate in January 2016 was estimated to be approximately 58.0 percent, and the persons per household estimate for occupied units was approximately 2.28.[6] The high vacancy rate is reflective of the resort nature of the area and seasonal residents. Table 6-2, *Housing Estimates*, provides a summary of both 2000 and 2016 housing estimates for Mono County and the Town of Mammoth Lakes.

Table 6-2
Housing Estimates

Year	Mono County	Town of Mammoth Lakes
Housing		
2000[1]	11,720	7,935
2016[2]	14,000	9,672
Change	19.5%	21.9%

Sources:
1. State of California, Department of Finance, *E-8 Historical Population and Housing Estimates for Cities, Counties, and the State, 1990-2000*, http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-8/, accessed September 2, 2016.
2. State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark, http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed September 2, 2016.

[4] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark,* http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed September 2, 2016.

[5] State of California, Department of Finance, *E-8 Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000*, http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-8/, accessed September 2, 2016.

[6] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark,* http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed September 2, 2016.

Town of Mammoth Lakes. The Town's housing stock was estimated to be 9,672 units in January 2016. This represents an increase of approximately 21.9 percent over the estimated 7,935 housing units reported in January 2000. The vacancy rate in January 2016 was estimated to be approximately 65.4 percent, with the persons per household estimate for occupied units being 2.35.[7] Although it appears an excess supply of housing units exist in the Town, in actuality, a majority of the housing units are short-term seasonal units. Additionally, overcrowding conditions occur as a result of high rents and limited housing opportunities for permanent residents and the seasonal workforce. This is a reflection of the resort nature of the Town, and the fact that seasonal, recreational, and occasional use units account for a majority of the total housing units.

Employment

Mono County. According to the California Employment Development Department, the annual average civilian labor force within Mono County totals approximately 8,540 as of July 2016. An estimated 5.7 percent of the County's workforce (480 persons) was unemployed.[8]

Town of Mammoth Lakes. According to the California Employment Development Department, the annual average civilian labor force within the Town of Mammoth Lakes totals approximately 5,330 persons as of July 2016. An estimated 5.0 percent of the Town's workforce (270 persons) was unemployed.[9]

IMPACT ANALYSIS

A project could induce population growth in an area either directly or indirectly. More specifically, the development of new residences or businesses could induce population growth directly, whereas the extension of roads or other infrastructure could induce population growth indirectly. The project site is located in a developing area within the Town. Project implementation would result in the development of new community multi-use facilities; refer to Section 3.0, *Project Description*. Based on the factors discussed below, project implementation would not result in significant growth-inducing impacts.

Removal of an Impediment to Growth. The project site currently consists of a passive recreational park use, and is located within a developing area within the Town. Transportation and infrastructure exist to serve the range of recreational, commercial, and residential uses in the project vicinity. Given the developed nature of the project area and developed infrastructure, the proposed project would not establish an essential public service or provide new access to an area. Therefore, the proposed project would not be considered growth inducing with respect to removing an impediment to growth.

[7] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark,* http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed September 2, 2016.

[8] California Employment Development Department, Labor Force and Unemployment Rate for Cities and Designated Places, with March 2015 Benchmark, http://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html, accessed September 2, 2016.

[9] Ibid.

Economic Growth. As stated above, the project involves the development of new community multi-use facilities. During project construction, construction-related jobs would be created. However, these jobs would be temporary and would not be growth-inducing. During project operation, economic growth associated with the community multi-use facilities would be consistent with the General Plan with respect to the planned land use for the project site. The proposed community multi-use facilities would serve the existing Town residents and would not result in significant jobs or economic growth in the Town.

Population Growth. A project could induce population growth in an area either directly or indirectly. The development of new residences or businesses could induce population growth directly, whereas the extension of roads or other infrastructure could induce population growth indirectly. As concluded above, transportation and infrastructure exist to serve the range of recreational, commercial, and residential uses in the project vicinity. The project does not involve the extension of roads or other infrastructure into undeveloped areas. Therefore, the project would not foster population growth through the extension of roads or other infrastructure. The population growth associated with the proposed project is considered a less than significant impact.

Precedent-Setting Action. As demonstrated in Section 5.1, *Land Use and Relevant Planning*, the proposed project does not require any General Plan or Municipal Code amendments. The project components include a Major Design Review, among others. As such, the proposed project would not be considered growth inducing with respect to a precedent-setting action.

Development or Encroachment of Open Space. The project is considered an infill development, because the site is surrounded by existing residential uses to the south and west. Therefore, the project would not be growth-inducing with respect to development or encroachment into an isolated or adjacent area of open space.

Overall, project implementation would not be considered growth inducing, inasmuch as it would not foster significant unanticipated economic expansion and growth opportunities. The project would not remove an existing impediment to growth and would not develop or encroach into an isolated or adjacent area of open space. The proposed project would not foster significant unanticipated population growth in the project area, as described above.

In addition to inducing growth, a project may create a significant environmental impact if it would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere and/or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. The project would serve the existing community and would not displace any existing housing.

6.4 ENERGY CONSERVATION

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the California State Legislature adopted Assembly Bill 1575 (AB 1575), which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of

50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of caused by a project. Thereafter, the State Resources Agency Created Appendix F of the State *CEQA Guidelines*.

State CEQA Guidelines Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. The discussion below, analyzes the proposed project's effect on energy consumption impacts on energy resources.

6.4.1 ENVIRONMENTAL SETTING

Energy consumption is analyzed in this EIR due to the potential direct and indirect environmental impacts associated with the project. Such impacts include the depletion of nonrenewable resources and emissions of pollutants during both the construction and long-term operational phases.

ELECTRICITY/PROPANE SERVICES

Southern California Edison (SCE) provides electrical services in Mammoth Lakes and Mono County through State-regulated public utility contracts. Over the past 15 years, electricity generation in California has undergone a transition. Historically, California has relied heavily on oil- and gas-fired plants to generate electricity. Spurred by regulatory measures and tax incentives, California's electrical system has become more reliant on renewable energy sources, including cogeneration, wind energy, solar energy, geothermal energy, biomass conversion, transformation plants, and small hydroelectric plants. Unlike petroleum production, generation of electricity is usually not tied to the location of the fuel source and can be delivered great distances via the electrical grid. The generating capacity of a unit of electricity is expressed in megawatts (MW). One MW provides enough energy to power 1,000 average California homes per day. Net generation refers to the gross amount of energy produced by a unit, minus the amount of energy the unit consumes. Generation is typically measured in megawatt-hours (MWh), kilowatt-hours (kWh), or gigawatt-hours (GWh).

Although the natural gas is widely used throughout the State, Mammoth Lakes uses propane to fuel furnaces, water heaters, and stoves. Turner Gas Company (TGC) currently provides the Town with propane supplies. Electricity and propane service is available to locations where land uses could be developed. As part of the development of the proposed project, the Town of Mammoth Lakes' has conducted a consultation process with utility companies, including SCE and TGC, to allow informed input. The input that is provided facilitates a detailed review of the project by service purveyors to assess the potential demands. Utility companies are bound by contract to update energy systems to meet any additional demand.

Energy Usage

Energy usage is typically quantified using the British Thermal Unit (Btu). Total energy usage in California was 7,684 trillion Btu's in 2013 (the most recent year for which this specific data is available), which equates to an average of 201 million BTUs per capita. Of California's total energy usage, the breakdown by sector is 38 percent transportation, 24 percent industrial, 19 percent commercial, and 19 percent residential. Electricity and propane in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use.[10] It should be noted that the Town of Mammoth Lakes uses propane instead of natural gas for furnaces, water heaters, and stoves. In 2014, taxable gasoline sales (including aviation gasoline) in California accounted for 14,921,441,859 gallons of gasoline.[11]

The electricity consumption attributable to Mono County from 2007 to 2014 is shown in Table 6-3, *Electricity Consumption in Mono County 2007-2014*. As indicated, the demand has remained relatively constant, with no substantial increase.

Table 6-3
Electricity Consumption in Mono County 2007-2014

Year	Electricity Consumption (in millions of kilowatt hours)
2007	185.58
2008	199.71
2009	199.69
2010	201.17
2011	204.65
2012	196.84
2013	204.30
2014	191.45

Source: California Energy Commission, *Electricity Consumption by County*, http://ecdms.energy.ca.gov/elecbycounty.aspx, accessed September 5, 2016.

Automotive fuel consumption in Mono County from 2007 to 2016 is shown in Table 6-4, *Automotive Fuel Consumption in Mono County 2007-2016*. As shown, automotive fuel consumption has declined in Mono County since 2007.

[10] California State Profile and Energy Estimates, EIA (US Energy Information Administration), updated April 16, 2015, http://www.eia.gov/state/data.cfm?sid=CA#ConsumptionExpenditures, accessed September 5, 2016.

[11] California Board of Equalization, *Net Taxable Gasoline Sales*, 2016, https://www.boe.ca.gov/sptaxprog/reports/mvf_10_year_report.pdf, accessed September 5, 2016.

Table 6-4
Automotive Fuel Consumption in Mono County 2007-2016

Year	On-Road Automotive Fuel Consumption (Gallons)	Off-Road Automotive Fuel Consumption (Construction Equipment) (Gallons)
2007	18,700,000	3,874,000
2008	17,926,000	3,444,000
2009	17,712,000	3,189,000
2010	17,675,000	3,259,000
2011	17,161,000	3,241,000
2012	16,609,000	3,193,000
2013	16,506,000	3,231,000
2014	16,480,000	3,295,000
2015	16,375,000	3,426,000
2016	16,264,000	3,533,000

Source: California Air Resources Board, EMFAC2014.

6.4.2 REGULATORY SETTING

The following is a description of State and local environmental laws and policies that are relevant to the CEQA review process.

STATE OF CALIFORNIA

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24)

Title 24, California's energy efficiency standards for residential and non-residential buildings, was established by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, and provide energy efficiency standards for residential and non-residential buildings. In 2013, the CEC updated Title 24 standards with more stringent requirements. The 2013 standards are expected to substantially reduce the growth in electricity and natural gas/propane use. Additional savings result from the application of the standards on building alterations. For example, requirements for cool roofs, lighting, and air distribution ducts are expected to save additional electricity. These savings are cumulative, doubling as years go by. The 2016 standards have been approved and will go into effect on January 1, 2017. California's energy efficiency standards are updated on an approximate three year cycle.

CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen standards require new

residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2013 and went into effect July 1, 2014.

RECENT CEQA LITIGATION

In California, *Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173 ("CCEC"), the Court observed that CEQA Guidelines Appendix F lists environmental impacts and mitigation measures that an EIR may include. Potential impacts requiring EIR discussion include:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.

2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.

3. The effects of the project on peak and base period demands for electricity and other forms of energy.

4. The degree to which the project complies with existing energy standards.

5. The effects of the project on energy resources.

6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

6.4.3 STANDARDS OF SIGNIFICANCE

SIGNIFICANCE CRITERIA

In accordance with State *CEQA Guidelines*, the effects of a project are evaluated to determine whether they would result in a significant adverse impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts that are identified. The criteria used to determine the significance of impacts may vary depending on the nature of the project. According to Appendix F of the State *CEQA Guidelines*, the proposed project would have a significant impact related to energy, if it would:

- Develop land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy or construct new or retrofitted buildings that would have excessive energy requirements for daily operation.

The impact analysis focuses on the three sources of energy that are relevant to the proposed project: electricity and transportation fuel for vehicle trips associated with new development as well as the fuel necessary for project construction.

6.4.4 ENERGY CONSUMPTION

Energy consumption associated with the proposed project is summarized in Table 6-5, *Energy Consumption*. As shown in Table 6-5, the increase in electricity usage as a result of the project would constitute an approximate 0.004 percent increase in the typical annual electricity consumption in Mono County. The project would not consume natural gas as all of the Town of Mammoth Lakes uses propane to fuel furnaces, water heaters, and stoves, etc. The increase in off-road automotive fuel consumption in Mono County would be nominal, while the on-road automotive fuel consumption from the project would be 0.003 percent.

Table 6-5
Energy Consumption

Energy Type	Project Annual Energy Consumption	Mono County Annual Energy Consumption	Percentage Increase Countywide[6]
Electricity Consumption	396.82 MWh	103,840 MWh	0.004%
Automotive Fuel Consumption[3, 4]			
• Project Construction	2,217 gallons	3,295,000 gallons[5]	0.00%
• Project Operations	47,987 gallons	16,480,000 gallons[5]	0.003%

Notes:
1. Based on total electricity consumption (does not represent the net emissions over import energy).
2. The project would not consume natural gas as the Town of Mammoth Lakes uses propane Lakes to fuel furnaces, water heaters, and stoves.
3. Construction and operational fuel consumption is based on the EPA's Greenhouse Gas Emissions Calculator, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed September 8, 2016.
4. Project operations would require nominal vehicle trips.
5. Countywide fuel consumption is from the California Air Resources Board EMFAC2014 model.
6. The project increases in electricity consumption are compared with the total consumption in Mono County in 2014. The project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2016.

CONSTRUCTION-RELATED ENERGY CONSTRUCTION

During construction, the project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site clearing, grading, and construction. Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. Some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and CARB engine

emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.

Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business.

As indicated in Table 6-5, the overall fuel consumption would be 2,217 gallons for the proposed project, which would result in a nominal increase (0.00 percent) in fuel use in Mono County. As such, project construction would have a minimal effect on the local and regional energy supplies. It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. A less than significant impact would occur in this regard.

OPERATIONAL ENERGY CONSTRUCTION

Energy Demand

TRANSPORTATION ENERGY DEMAND

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. Table 6-5 provides an estimate of the daily fuel consumed by vehicles traveling to and from the project site. As indicated in Table 6-5, project operations are estimated to consume approximately 47,987 gallons of fuel per year, which would increase Countywide automotive fuel consumption by 0.003 percent. The project would not result in any unusual characteristics that would result in excessive long-term operational fuel consumption. Fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

BUILDING ENERGY DEMAND

The proposed project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. Furthermore, the electricity provider, SCE, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 50 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures projects will not result in the waste of the finite energy resources.

As mentioned above, SCE currently provides electrical services within the Town of Mammoth Lakes, while propane gas services are provided by TGS. SCE has indicated that adequate capacity exists within the area to serve to proposed project. These utility companies would continue to provide these services and are required by the California Public Utilities Commission to update existing systems to meet any additional demand.

As depicted in Table 6-5, the project-related building energy would represent a 0.004 percent increase in electricity consumption and a nominal increase in propane consumption over the current Countywide usage.[12] The project would adhere to all Federal, State, and local requirements for energy efficiency, including the Title 24 standards, as well as the project's design features. The proposed project would not result in the inefficient, wasteful, or unnecessary consumption of building energy. Additionally, the proposed project would not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

ENERGY EFFICIENCY MEASURES

Title 24, California's Energy Efficiency Standards for Residential and Non-residential Buildings, was established by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, and provide energy efficiency standards for residential and non-residential buildings. In 2013, the CEC updated Title 24 standards with more stringent requirements. The 2013 Standards are incorporated within the California Building Code and are expected to substantially reduce the growth in electricity and natural gas/propane use. Additional savings result from the application of the Standards on building alterations. For example, requirements for cool roofs, lighting, and air distribution ducts are expected to save about additional of electricity. These savings are cumulative, doubling as years go by. Additionally, the project may include the installation of solar panels on-site. The use of solar panels would reduce building energy demand during operations.

[12] The project would not consume natural gas as the Town of Mammoth Lakes uses propane Lakes to fuel furnaces, water heaters, and stoves.

CONCLUSION

As shown in Table 6-5, the increase in electricity and automotive fuel consumption over existing conditions is minimal (less than one percent). For the reasons described above, the proposed project would not place a substantial demand on regional energy supply or require significant additional capacity, or significantly increase peak and base period electricity demand, or cause wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation.

7.0 Alternatives to the Proposed Project

7.0 ALTERNATIVES TO THE PROPOSED PROJECT

Under CEQA, the identification and analysis of alternatives to a project is a fundamental part of the environmental review process. CEQA Public Resources Code Section 21002.l(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is . . . to identify alternatives to the project."

Direction regarding the definition of project alternatives is provided in the *CEQA Guidelines* as follows:

> *An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.*[1]

The *CEQA Guidelines* emphasize that the selection of project alternatives be based primarily on the ability to reduce significant effects relative to the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."[2] The *CEQA Guidelines* further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are addressed.[3]

In selecting project alternatives for analysis, potential alternatives must pass a test of feasibility. *CEQA Guidelines* Section 15126.6(f)(1) states that:

> *Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability) economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site. . .*

Beyond these factors, *CEQA Guidelines* require the analysis of a "no project" alternative and an evaluation of alternative location(s) for the project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives.[4] In addition, *CEQA Guidelines* Section 15126.6(c) requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible and discuss the reasons for their rejection.

The Town's goals and objectives for the project are based on applicable Parks and Recreation Master Plan and the Parks, Open Space, and Recreation Element goals, policies, and tasks, as follows:

1 *CEQA Guidelines Section 15126.6(a).*
2 *CEQA Guidelines Section 15126.6(b).*
3 *CEQA Guidelines Section 15126.6(f).*
4 *CEQA Guidelines Section 15126.6(e)(2).*

- *Goal 1:* Maintain parks and open space within and adjacent to Town for outdoor recreation and contemplation.

- *Goal 2:* Provide additional parks in Town.

- *Goal 4:* Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.

- *Goal 5:* Link parks and open space with a well-designed, year-round network of public corridors and trails within and surrounding Mammoth Lakes.

- *Goal 6:* Provide parks and recreational facilities and programs that foster a sense of community and nurture the emotional connection people have with each other and Mammoth Lakes.

- *Tasks:* To meet the recreation needs of residents and visitors into the future, the Town of Mammoth Lakes will need to increase the maintenance level of existing parks and recreation facilities, upgrade existing parks, add more usable park acreage, and develop additional facilities to address unmet recreation needs. More specifically, the Town should:

  - Design additional park improvements and recreation facilities to meet recreation needs in all seasons. These facilities include (in alphabetical order):

    - Aquatic center;
    - Dog park;
    - Event and performance venues;
    - Picnic areas;
    - Multi-use recreational/cultural facility;
    - Snow and winter play areas; and
    - Sports fields and courts.

Recreational Opportunities

P.4. Goal: Provide and encourage a wide variety of outdoor and indoor recreation readily accessible to residents and visitors of all ages.

P.4.B. Policy: Provide an affordable and wide range of year-round recreational opportunities to foster a healthy community for residents and visitors. Activities include but are not limited to:[5]

- Ice skating;
- Snow play;
- Walking;
- Fall-color viewing;
- Birding;
- Health & fitness; and
- BMX.

[5] P.4.B. Policy lists 29 activities. Those listed are contemplated for this project.

Connected Throughout

P.5. Goal: Link parks and open space with a well-designed year-round network of public corridors and trails within and surrounding Mammoth Lakes.

P.5.E. Policy: Design parks and open space to be accessible and usable except when set aside for preservation of natural resources, health and safety.

P.5.G. Policy: Identify, zone and procure land for new and expanded parklands including:[6]

- Community gardens;
- Streamside parks;
- Active parks;
- Open space;
- Snow play;
- Festival and special events areas; and
- Passive parks.

In order to meet the Task for Goal 6 identified above, the Town set a goal to provide a roof over the Town-operated ice rink/RecZone, thereby extending the winter seasonal use and enhancing the summer seasonal uses. It is also the intent of the Town's Council to provide complementary facilities at the Town's ice rink/RecZone.

The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. The range of potential alternatives to the proposed project shall also include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). Only locations that would avoid or substantially lessen any of the project's significant effects need be considered for inclusion. An alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative need not be considered.

Only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. The proposed project would not result in any significant and unavoidable impacts and all potential impacts were reduced to a less than significant level.

Potential environmental impacts associated with the following alternatives are compared to impacts from the proposed project:

[6] P.5.G. Policy lists 11 activities. Those listed are contemplated for this project.

- Alternative 1 – "No Project" Alternative;
- Alternative 2 – "Civic Center Parcel Alternative Site" Alternative;
- Alternative 3 – "Bell Shaped Parcel Alternative Site" Alternative; and
- Alternative 4 – "Reconfigured" Alternative.

Throughout the following analysis, the alternatives' impacts are analyzed for each environmental issue area, as examined in Section 5.1 through Section 5.9 of this EIR. In this manner, each alternative can be compared to the proposed project on an issue-by-issue basis. Table 7-1, *Comparison of Alternatives*, which is included at the end of this Section, provides an overview of the alternatives analyzed and a comparison of each alternative's impact in relation to the proposed project. This Section also identifies alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process. Among the factors used to eliminate alternatives from detailed consideration are: failure to meet most of the basic project objectives; infeasibility; or inability to avoid significant environmental impacts. Section 7.5, *Environmentally Superior Alternative*, references the "environmentally superior" alternative, as required by the *CEQA Guidelines*.

In accordance with CEQA Guidelines Section 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the CEQA Guidelines, among the factors that may be used to eliminate alternatives from detailed consideration are the alternative's failures to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts.

As discussed in Section 3.2, *Background and History*, Town Staff, working in conjunction with representatives from Mammoth Lakes Recreation (MLR) and the Recreation Commission, were tasked to evaluate and recommend appropriate sites for a Multi-Use Facility to the Town Council. This recommendation would include a new community center, ice rink, and complementary uses. After an extensive review of available Town-owned properties/managed facilities, the multiple sites that were considered for the project are shown on Exhibit 3-3, *Previously Considered Alternative Site Locations* (Community Center Parcel, Bell Shaped Parcel, Mammoth Creek Park West, Whitmore Park/Track, Field(s) and Pool, Parcel at Tavern and Sierra Park Road, and Civic Center Parcel). The Town did not include Shady Rest Park or Mammoth Creek Park East in this site selection analysis, as these properties are located in the jurisdictional boundaries of the United States Forest Service (USFS). Due to the existing land use restrictions imposed by the USFS, the Town would not be permitted to construct the project on these properties.

Based on the opportunities and constraints considered for each of these alternative site locations[7], the following alternative site locations were considered but rejected as infeasible, and are discussed as follows:

- *Community Center Parcel:* The Community Center Parcel incorporates 5.18 acres and includes a pocket-park with a new playground, six tennis courts, play and picnic areas, a pay phone and an inside meeting room, including kitchen, tables, chairs and restrooms, as well as the 2,550-square feet Community Center located at 1000 Forest Trail[8]; refer to Exhibit 3-3. The

[7] Town of Mammoth Lakes, *Mammoth Lakes Town Council Agenda October 21, 2015 Agenda Item #11,* October 13, 2015.

[8] Town of Mammoth Lakes, *Community Center, Park and Tennis Courts,* http://www.ci.mammoth-lakes.ca.us/index.aspx?NID=580, accessed June 24, 2016.

opportunities at the Community Center Parcel include the existing amenities comprised of the tennis courts, playground, community center, restrooms, and parking.

The Town determined that with the existing tennis courts on-site, this facility would not be able to accommodate the proposed facilities and necessary parking to serve the project. Further, the existing building is on lease with the Mono County Office of Education (MCOE) for educational programs and would require major modifications due to the facilities conditions. Last, this alternative site location is located in North Village, which currently has impacted parking conditions. Implementation of the project at this alternative location would further exacerbate this existing condition. Thus, due to the size of this facility as well as the parking concerns, this alternative has been rejected from further analysis.

- *Whitmore Recreational Area*: The Whitmore Recreation Area is located six miles south of Mammoth Lakes, off Highway 395 along Benton Crossing Road and includes the Whitmore Park, Track & Sports Field, Whitmore Pool and three ball fields;[9] refer to Exhibit 3-3. The Town has developed 10 acres of the total leased area (32.64 acres) for public and programmed use. The facility is leased from the Los Angeles Department of Water and Power (LADWP) and is operated by the Town of Mammoth Lakes. A shared facility maintenance agreement is also in effect with the County of Mono. Existing facilities at the Whitmore Recreation Area include a track and field, pool, and lighted ball fields.

  The Town determined that although there is space for some additional facilities and parking, this site would not be able to accommodate the project upon development of approved future facilities at this site. Other constraints on this site include wind (which is a concern for a roof structure over the future ice rink), increased travel time and maintenance requirements for the Town, and overall accessibility for the community without vehicles or public transportation. Further, the Town's ad hoc committee considered the Whitmore Park/Track, Field(s) and Pool an inappropriate option due to a recent renewal of a long-term lease that requires the LADWP and Los Angeles City Council to approve contracts and building infrastructure on this leased land.

- *Trails End Park:* The Trails End Park is located on Meridian Boulevard approximately one-quarter mile south of the SR-203 and Meridian Boulevard intersection, and adjacent to the Mammoth Industrial Park[10]; refer to Exhibit 3-3. The Trails End Park features a recently completed 40,000-square-foot skateboard park and more recreational features are planned to be added in the future. However, this site is limited size and available parking, is heavily used, and is close to completion for buildout of facility. Thus, due to the limited availability of space at this site to construct the project, this alternative has been rejected from further analysis.

[9] Town of Mammoth Lakes, *Whitmore Recreation Area,* http://www.ci.mammoth-lakes.ca/us/index.aspx?NID=579, accessed June 24, 2016.

[10] Town of Mammoth Lakes, *Trails End Park and Volcom Brothers Skatepark,* http://www.ci.mammoth-lakes.ca.us/Facilities/Facility/Details/Trails-End-Park-and-Volcom-Brothers-Skat-5, accessed June 24, 2016.

7.1 "NO PROJECT" ALTERNATIVE

In accordance with the *CEQA Guidelines*, "the no project analysis shall discuss the existing conditions …, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."[11] The *CEQA Guidelines* continue to state that "in certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained."[12] The "No Project" Alternative includes a discussion and analysis of the existing baseline conditions at the time the Notice of Preparation was published on June 2, 2016. The No Project scenario is described and analyzed in order to enable the decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

DESCRIPTION OF ALTERNATIVE

The project site is located at Mammoth Creek Park West (686 Old Mammoth Road). The project site is approximately 4.9 acres and is comprised of playground equipment, grass/open space, picnic areas, trail connections, and a surface parking lot for 44 vehicles. Vehicular access to the site is provided via Old Mammoth Road, and pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site. The primary local roadway providing access to the project site is Old Mammoth Road. The Town's existing community center (1000 Forest Trail) and Mammoth Ice Rink (416 Sierra Park Road) are located approximately 1.38 miles to the northwest, and 0.30-mile to the northeast of the project site, respectively.

The No Project Alternative would retain the project site in its current condition. With this Alternative, the operations of the existing community center and Mammoth Ice Rink would continue similar to existing conditions, and would not be relocated to the project site. Under the No Project Alternative, a new covered ice rink, support facilities, and community multi-use facilities would not be constructed at Mammoth Creek Park West. No landscape or hardscape improvements would be provided at Mammoth Creek Park West.

The Town would be required to extend the existing lease with the Mammoth Unified School District (MUSD) and the Mono County Office of Education (MCOE). The existing Mammoth Ice Rink would continue to operate as an ice rink in winter and the Mammoth RecZone, an outdoor venue with a small amount of shade, lights, and concessions offering activities (inline/roller skating, skate ramps, volleyball, badminton, basketball, etc.) during the summer. The existing operations at the year-round community center would also continue. The 2,500 square-foot facility's deficiencies, including extensive building deterioration, on-going maintenance issues, and functional inefficiencies, would remain.

The following discussion evaluates the potential environmental impacts associated with the No Project Alternative, as compared to impacts from the proposed project.

[11] *CEQA Guidelines Section 15126.6(e)(2).*
[12] *CEQA Guidelines Section 15126.6(e)(3)(B).*

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use

Under the No Project Alternative, no development would occur at Mammoth Creek Park West under this Alternative. Similar to the proposed project, the No Project Alternative would not require amendments to the General Plan or Zone Code. However, under this Alternative, no new land use approvals and permits would be required.

Implementation of this Alternative would not meet the goals and objectives of the Town of Mammoth Lakes Parks and Recreation Master Plan. A new covered ice rink, support facilities, and community multi-use facilities would not be constructed under this Alternative. Thus, the No Project Alternative would be environmentally inferior to the proposed project regarding land use consistency.

Aesthetics/Light and Glare

The short-term visual impacts associated with grading and construction activities that would occur with the proposed project would not occur with the No Project Alternative. Therefore, the project's construction-related impacts to the visual character/quality of the project site and its surroundings would be avoided.

No visual impacts to designated scenic views/vistas would occur with the No Project Alternative. However, no increases in available public views at the Mammoth Creek Park West facility would occur. The project site's long-term visual character would be altered with the proposed project as a result of development of the new community multi-use facilities. The existing active recreational uses at the project site would be expanded, including construction of a new 35-foot structure. The existing views toward visual resources at Mammoth Creek Park West would be expanded as well. Landscape and hardscape features would be altered and existing pine trees would be removed and replaced on-site, as required. Last, the project would increase light and glare experienced in the project vicinity. With implementation of the No Project Alternative, these changes in long-term visual character of the project site would not occur, and the project site would remain in its current condition. The project's less than significant impact to the area's visual character/quality and light/glare would be avoided with the No Project Alternative.

The No Project Alternative would be environmentally superior to the proposed project regarding aesthetics/light and glare, given it would avoid less than significant impacts to short-term visual character/quality, long-term visual character/quality, and light/glare.

Biological Resources

Project implementation would not impact special status species, sensitive natural communities, or jurisdictional waters and wetlands. Impacts to migratory birds and compliance with the Town's tree preservation ordinance would be reduced to a less than significant level with the implementation of recommended mitigation. Under the No Project Alternative, no construction activities would occur, and the project site would remain in its current condition. Therefore, although less than significant, the project's impacts would be avoided. As with the proposed project, no impact to special status plant species, sensitive vegetation communities, wetlands, jurisdictional waters would occur with this

Alternative. Impacts pertaining to migratory birds and consistency with the Town's tree preservation ordinance would be avoided altogether.

The No Project Alternative would be environmentally superior to the proposed project regarding biological resources, given it would not change the site, and would avoid less than significant impacts to migratory birds and habitat.

Cultural Resources

Cultural resources (CA-MNO-561) have been identified on the project site. Implementation of the proposed project was determined to not impact the California Register of Historical Resources (CRHR) eligibility of this resource as a whole. Further, although the data potential for the site has been exhausted by the Phase II investigation, the possibility for intact features (e.g., hearths, burials) within the project site remains. Although no conditions exist that suggest human remains are likely to be found on the project site, development of the project site could result in the discovery of human remains and potential impacts to these resources. With implementation of the recommended Mitigation Measure CUL-1 and compliance with existing State regulations regarding human remains, cultural resource impacts would be reduced to less than significant levels. Under the No Project Alternative, these impacts would be avoided. Comparatively, less than significant potential impacts to historical resources would occur with the proposed project, while no impacts would occur with this Alternative.

The No Project Alternative would be environmentally superior to the proposed project regarding cultural resources, given it would avoid the potential for any impact to occur.

Traffic and Circulation

Existing a.m. and p.m. peak hour intersection operating conditions were evaluated in the Traffic Impact Analysis; refer to Section 5.5, *Traffic and Circulation*. All study intersections are currently operating at an acceptable LOS (LOS D or better) during the peak hours based on the Town's LOS standards. These existing conditions would continue with the No Project Alternative, but may be affected by additional growth in the area over time. Project implementation would result in less than significant impacts at intersections. The increase in average daily traffic (ADT) projected to occur with the proposed project would not occur with this Alternative, as the proposed project would not be developed. Therefore, although less than significant, the project's impacts to study area intersections would be avoided.

The No Project Alternative would be environmentally superior to the proposed project regarding traffic and circulation, given it would result in no increase in ADT and no traffic impacts at intersections.

Air Quality

Table 5.6-5, *Maximum Daily Construction Emissions*, presents the project's anticipated daily short-term construction emissions and indicates that less than significant impacts would occur in this regard. Short-term air quality impacts from grading, excavation, and construction activities would not occur with the No Project Alternative. Therefore, the short-term air quality impacts that would occur with the proposed project would be avoided with this Alternative.

The proposed project would not exceed the Great Basin Unified Air Pollution Control District's (GBUAPCD) emissions thresholds, as indicated in Table 5.6-6, *Long-Term Operational Air Emissions*. Additionally, the project would not result in CO hotspots at any of the study intersections. Long-term air quality impacts from mobile and area source pollutant emissions would not occur with the No Project Alternative. Therefore, the air quality emissions that would occur with the proposed project would be avoided with this Alternative.

The No Project Alternative would be environmentally superior to the proposed project regarding air quality, given it would result in no short- or long-term air quality impacts.

Greenhouse Gas Emissions

As indicated in Table 5.7-1, *Project Related Greenhouse Gas Emissions*, project implementation would result in 801.28 metric tons of carbon dioxide equivalents per year ($MTCO_2eq/yr$), which is below the 900 $MTCO_2eq/yr$ threshold. Thus, less than significant short-term and operational greenhouse gas (GHG) emission impacts would occur with the proposed project. GHG emissions from construction and operational activities would not occur with the No Project Alternative. Therefore, the GHG emissions that would occur with the proposed project would be avoided with this Alternative.

The No Project Alternative would be environmentally superior to the proposed project regarding GHG emissions, since no GHG emissions would occur.

Noise

Construction noise associated with the proposed project would result in less than significant impacts. The project's construction-related vibration impacts are also anticipated to be less than significant. Construction-related short-term noise impacts from stationary and mobile sources, and vibration impacts would not occur with the No Project Alternative. Therefore, the short-term construction-related noise and vibration impacts that would occur with the proposed project would be avoided with this Alternative.

As shown in Table 5.8-4, *Existing Traffic Noise Levels*, existing noise within the area from mobile sources ranges from 51.2 A-weighted decibels (dBA) to 65.1 dBA at 100 feet from the roadway centerline. These existing conditions would continue with the No Project Alternative but may be impacted by additional growth in the area over time. Project implementation would result in less than significant impacts from mobile noise sources. The increase in ADT projected to occur with the proposed project would not occur with this Alternative, as the proposed project would not be developed. Therefore, although less than significant, the project's long-term noise impacts from mobile sources would be avoided.

Project implementation would result in less than significant impacts from stationary noise sources with implementation of the recommended mitigation. The increased noise from stationary sources (i.e., mechanical equipment, community center, ice rink, recreation zone, etc.) would not occur with this Alternative, as the proposed community multi-use facilities would not be developed. Therefore, although less than significant, the project's long-term noise impacts from stationary sources would be avoided.

The No Project Alternative would be environmentally superior to the proposed project regarding noise, since it would result in no short-term construction-related, or long-term operational noise impacts, compared to the proposed project.

Hydrology and Water Quality

The No Project Alternative would result in no short-term impacts to water quality associated with grading, excavation, or construction activities, as site development would not occur. Comparatively, less than significant water quality project impacts (with mitigation incorporated) from construction activities would be avoided with this Alternative.

The No Project Alternative would avoid the project's long-term operational impacts to water quality and quantity, as new community multi-use facilities would not be developed and increased traffic activities would not occur. The post-construction Best Management Practices (BMPs) to address pollutants in storm water runoff and new drainage improvements that would be constructed with the proposed project would not be constructed with this Alternative. Since new development would not occur, impacts related to hydrology and water quality that would occur with the proposed project would not occur with the No Project Alternative.

The No Project Alternative would be neither environmentally superior nor inferior to the proposed project regarding hydrology and water quality impacts. As construction activities would not occur and new land uses would not be developed, no changes in drainage patterns or on-site operations would occur. However, no BMPs would be constructed on-site.

ABILITY TO MEET PROJECT OBJECTIVES

The No Project Alternative would not attain any of the project's basic objectives. The existing ice rink and community facilities would not be relocated closer to public corridors/trails. New active outdoor recreational opportunities for all seasons would not be created. Lastly, this Alternative would not provide a covered roof structure over the Town's ice rink facility. This Alternative would not fulfill the Town's goal to provide a roof over the Town-operated ice rink/RecZone. This Alternative would not extend the winter seasonal use or enhance the summer seasonal use at the Town-operated ice rink/RecZone. Also, this Alternative would not provide complementary facilities at the Town's ice rink/RecZone.

7.2 "CIVIC CENTER PARCEL ALTERNATIVE SITE" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The Civic Center Parcel is on the east side of Sierra Park Road at the eastern extension of Tavern Road; refer to Exhibit 7-1, *Civic Center Parcel Alternative Site Location*. This Town-owned parcel is approximately four acres. Currently, the Civic Center Parcel is planned for government facilities and may include future shared government facilities with Mono County. The Town's new Police Station is currently under construction in the northeast portion of the site off Thompson Way.

Source: Goolge Earth, 2016.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Civic Center Parcel Alternative Site Location

Exhibit 7-1

Under the Civic Center Parcel Alternative Site Alternative, the proposed new ice rink/ recreation/event area (RecZone) would be developed at the Civic Center Parcel. This Alternative would encompass an ice rink (winter)/RecZone covered by a roof structure and additional storage and support space, similar to the proposed project. However, based on available space upon completion of the proposed Police Station at this site, a complementary community center or active outdoor recreational area would not be constructed. Appropriate surface parking and utility connections would be required to be installed. Similar to the proposed project, upon project completion of construction, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation.

The following discussion evaluates the potential environmental impacts associated with the Civic Center Parcel Alternative Site Alternative, as compared to impacts from the proposed project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Relevant Planning

Under the Civic Center Parcel Alternative Site Alternative, the project features would be constructed at the Civic Center Parcel. Similar to the proposed project, this Alternative would not require amendments to the General Plan or Zone Code and would also require new land use approvals and permits. Implementation of this Alternative would meet the goals and objectives of the Town of Mammoth Lakes Parks and Recreation Master Plan, although not to the extent of the project, as no complimentary facilities (i.e., a complementary community center or active outdoor recreational area) would be provided. Thus, the Civic Center Parcel Alternative Site Alternative would be environmentally inferior to the proposed project regarding land use consistency.

Aesthetics/Light and Glare

Under the Civic Center Parcel Alternative Site Alternative, the short-term visual impacts associated with grading and construction activities that would occur with the proposed project would not occur at the Mammoth Creek Park West facility. However, short-term visual impacts associated with grading and construction activities would occur at the Civic Center Parcel, although to a slightly lesser extent than the project (as no complementary facilities would be constructed). Residential uses surrounding Mammoth Creek Park West would no longer be exposed to these short-term construction impacts. Therefore, the project's less than significant construction-related impacts to the visual character/quality of the project site and its surroundings would be avoided, but new less than significant construction-related impacts to the visual character/quality near the Civic Center Parcel would result, although to a less degree than the proposed project since surrounding uses are not as sensitive to these visual changes and the proposed area of disturbance would be reduced.

With development of the Civic Center Parcel Alternative Site Alternative, no visual impacts to the designated scenic views near Mammoth Creek Park West would occur. However, new impacts to designated scenic views along SR-203 toward the Sherwin Range would result. Under this Alternative, the project's less than significant long-term impacts to the visual character at the Mammoth Creek Park West facility would be avoided. However, new long-term impacts to the visual character at the

Civic Center Parcel would result. Last, the project's increased light and glare at Mammoth Creek Park West would not result; however, new sources of light and glare would be introduced at the Civic Center Parcel.

The Civic Center Parcel Alternative Site Alternative would be neither environmentally superior nor inferior to the proposed project regarding aesthetics/light and glare. Although there would be fewer facilities located at this site, compared to the project, the main structure (the ice rink/RecZone) would still be constructed, resulting in similar impacts as the project (although at a new location in the Town).

Biological Resources

Project implementation would result in less than significant impacts as the project does not contain special status species, sensitive natural communities, or jurisdictional waters and wetlands. Impacts to migratory birds and compliance with the Town's tree preservation ordinance would also be reduced to a less than significant level with the implementation of mitigation. Under the Civic Center Parcel Alternative Site Alternative, construction of the project at the Mammoth Creek Park West facility would not occur. However, construction of the community multi-use facilities would occur at the Civic Center Parcel, which currently consists of mostly vacant land. Development of this Alternative could result in new impacts to specials status plant or wildlife species or sensitive vegetation communities. Further, similar to the proposed project, development at the Civic Center Parcel would require removal of existing pine trees and construction impacts could affect migratory birds.

The Civic Center Parcel Alternative Site Alternative would be neither environmentally superior nor inferior to the proposed project regarding biological resources.

Cultural Resources

Cultural resources (CA-MNO-561) have been identified on the project site. Implementation of the proposed project was determined to not impact the CRHR eligibility of this resource as a whole. Although the data potential for the site has been exhausted by the Phase II investigation, the possibility for intact features within the project site remains. Although no conditions exist that suggest human remains are likely to be found on the project site, development of the project site could result in the discovery of human remains and potential impacts to these resources. With implementation of the recommended Mitigation Measure CUL-1 and compliance with existing State regulations regarding human remains, project impacts in this regard would be reduced to less than significant levels. Under the Civic Center Parcel Alternative Site Alternative, there would be no potential for impacts to cultural resources or human remains at the Mammoth Creek Park West facility, since development would not occur at this site.

Based on the cultural resources survey conducted for the Mammoth Community Facilities Acquisition no significant cultural resources or heritage resources are anticipated to occur on the Civic Center Parcel.[13] However, the potential to encounter unknown cultural resources still exists, as the Civic Center Parcel encompasses mostly vacant land. Thus, impacts to cultural resources would be slightly

[13] Nicholas A. Faust, North Zone Archaeologist, Inyo Forest, United States Department of Agriculture Forest Service, *Mammoth Fire Station and Community Church Land Exchanges, Heritage Resources Section 106 and NEPA Documentation*, October 21, 2004.

reduced under the Civic Center Parcel Alternative Site Alternative, compared to the proposed project in this regard. Similar to the proposed project, impacts pertaining to encountering unknown human remains would be reduced to less than significant levels with compliance with existing State regulations.

The Civic Center Parcel Alternative Site Alternative would be environmentally superior to the proposed project regarding potential impacts to cultural resources.

Traffic and Circulation

Under the Civic Center Parcel Alternative Site Alternative, the project's construction truck trips and operational net 116 p.m. peak hour (62 entering; 54 existing) trips would occur at the Civic Center Parcel, rather than at Mammoth Creek Park West, although to a lesser extent than the project (as no complimentary facilities would be constructed). Therefore, the project's less than significant impacts on the study area intersections would not occur, but new traffic impacts on other Town intersections would result. As the Civic Center Parcel Alternative Site Alternative would result in reduced trip generation, compared to the proposed project, this Alternative would be environmentally superior inferior to the proposed project regarding traffic and circulation impacts.

Air Quality

Table 5.6-5, presents the project's anticipated daily short-term construction emissions and indicates that less than significant impacts would occur in this regard. Short-term air quality impacts from grading, excavation, and construction activities would still occur in the Town, although at the Civic Center Parcel, rather than the Mammoth Creek Park West facility. Comparatively, the construction-related air quality impacts would be slightly reduced compared to the proposed project, given slightly less ground-disturbing activities would occur (compared to the project), although at a different site in the Town. Therefore, the short-term air quality impacts would be slightly reduced under this Alternative.

The proposed project would not exceed the GBUAPCD's emissions thresholds, as indicated in Table 5.6-6. Additionally, the project would not result in CO hotspots at any of the study intersections. Although at a different site in Town, long-term air quality impacts from mobile and area source pollutant emissions would still occur as a result of the Civic Center Parcel Alternative Site Alternative, although to a lesser extent. This Alternative would result in reduced development and vehicle trips, as compared to the proposed project. With this Alternative, long-term air quality impacts from mobile pollutant emissions would be reduced, as compared to the proposed project.

The Civic Center Parcel Alternative Site Alternative would be environmentally superior inferior to the proposed project regarding air quality impacts.

Greenhouse Gas Emissions

As indicated in Table 5.7-1, project implementation would result in 801.28 $MTCO_2eq/yr$, which is below the 900 $MTCO_2eq/yr$ threshold. Thus, less than significant short-term and operational GHG emission impacts would occur with the proposed project. Although at a different site in Town, the similar GHG emissions from construction and operational activities would also occur with the Civic

Center Parcel Alternative Site Alternative, although to a slightly less degree compared to the proposed project given no complimentary facilities would be constructed. As with the proposed project, the combined construction and operational GHG emissions would also result in less than significant impacts from a cumulative perspective under this Alternative, although to a lesser extent than the project.

The Civic Center Parcel Alternative Site Alternative would be environmentally superior to the proposed project regarding GHG emissions.

Noise

Construction noise associated with the proposed project would result in less than significant impacts. The project's construction-related vibration impacts are also anticipated to be less than significant. Short-term noise impacts from grading, excavation, and construction activities would still occur with the Civic Center Parcel Alternative Site Alternative, although to a lesser degree than the project and in a different location in Town. Comparatively, the project's construction-related noise impacts would no longer impact those residents surrounding the Mammoth Creek Park West facility. However, those sensitive receptors near the Civic Center Parcel (i.e., Mammoth Hospital and Mammoth Mountain RV Park) would be exposed to the project's construction sources. Construction sources from this Alternative would be slightly less than the proposed project, since no complimentary facilities would be constructed. Further, Mammoth Hospital and the RV Park are considered less sensitive to noise than multi-family residential uses per the Town's Municipal Code and General Plan. Thus, the sensitivity of the surrounding uses at the project site and considered more noise sensitive than the uses surrounding the Civic Center Parcel. Therefore, short-term construction-related impacts would be less than those considered for the proposed project.

As shown in Table 5.8-4, existing noise within the area from mobile noise ranges from 51.2 dBA to 65.1 dBA at 100 feet from the roadway centerline. Long-term noise impacts from vehicular travel on the surrounding roadway network near Mammoth Creek Park West would no longer occur with the Civic Center Parcel Alternative. However, new mobile noise source impacts along the surrounding roadway network for the Civic Center Parcel would result under this Alternative. These mobile noise sources would be slightly less than the proposed project, given that no complimentary facilities would be constructed. Comparatively, the project's mobile noise impacts would no longer impact those residents surrounding the Mammoth Creek Park West facility. However, those sensitive receptors near the Civic Center Parcel (i.e., Mammoth Hospital and Mammoth Mountain RV Park) would be exposed to the Alternative's mobile noise. As interior noise thresholds do not apply to Mammoth Hospital, and the RV Park would be considered a transient-use, these sensitive receptors would be considered slightly less sensitive than residential uses near Mammoth Creek Park West. Thus, mobile noise-related impacts would be less than those considered for the proposed project.

Project implementation would result in less than significant impacts from stationary noise sources with implementation of recommended mitigation. The increased noise from stationary sources from the proposed project (i.e., mechanical equipment, ice rink, recreation zone, etc.), would not occur in and near Mammoth Creek Park West with this Alternative. However, new stationary noise impacts from these activities would occur within and near the Civic Center Parcel. Comparatively, stationary noise sources from the community center and active outdoor area would not result with this Alternative. As discussed above, although sensitive residential uses would no longer be exposed to stationary noise from the project, new sensitive receptors (Mammoth Hospital and Mammoth

Mountain RV Park) would be exposed. These sensitive receptors would not be considered as sensitive as those surrounding Mammoth Creek Park West. Thus, implementation of the Civic Center Parcel Alternative Site Alternative would result in reduced stationary noise impacts.

The Civic Center Parcel Alternative Site Alternative would be environmentally superior to the proposed project regarding noise.

Hydrology and Water Quality

The proposed project would result in less than significant (with mitigation incorporated) short-term impacts to water quality associated with grading and construction activities. Implementation of the Civic Center Parcel Alternative Site Alternative would similarly result in short-term impacts to water quality at the Civic Center Parcel, rather than Mammoth Creek Park West. Comparatively, this Alternative's short-term impacts to water quality would be slightly less than the proposed project and in a different location in Town, given this Alternative would involve a reduced area of site disturbance.

The project's long-term operational impacts to water quality and quantity would no longer occur at Mammoth Creek Park West. However, new land uses would operate on the Civic Center Parcel and an increase in traffic volumes would occur (increasing water quality concerns at this location), although to a lesser degree than the project given the smaller development footprint. Further, the project's less than significant impacts involving a 100-year flood zone would be avoided with this Alternative, as the Civic Center Parcel is not located within a 100-year flood zone.

The Civic Center Parcel Alternative Site Alternative would be environmentally superior to the proposed project regarding hydrology and water quality.

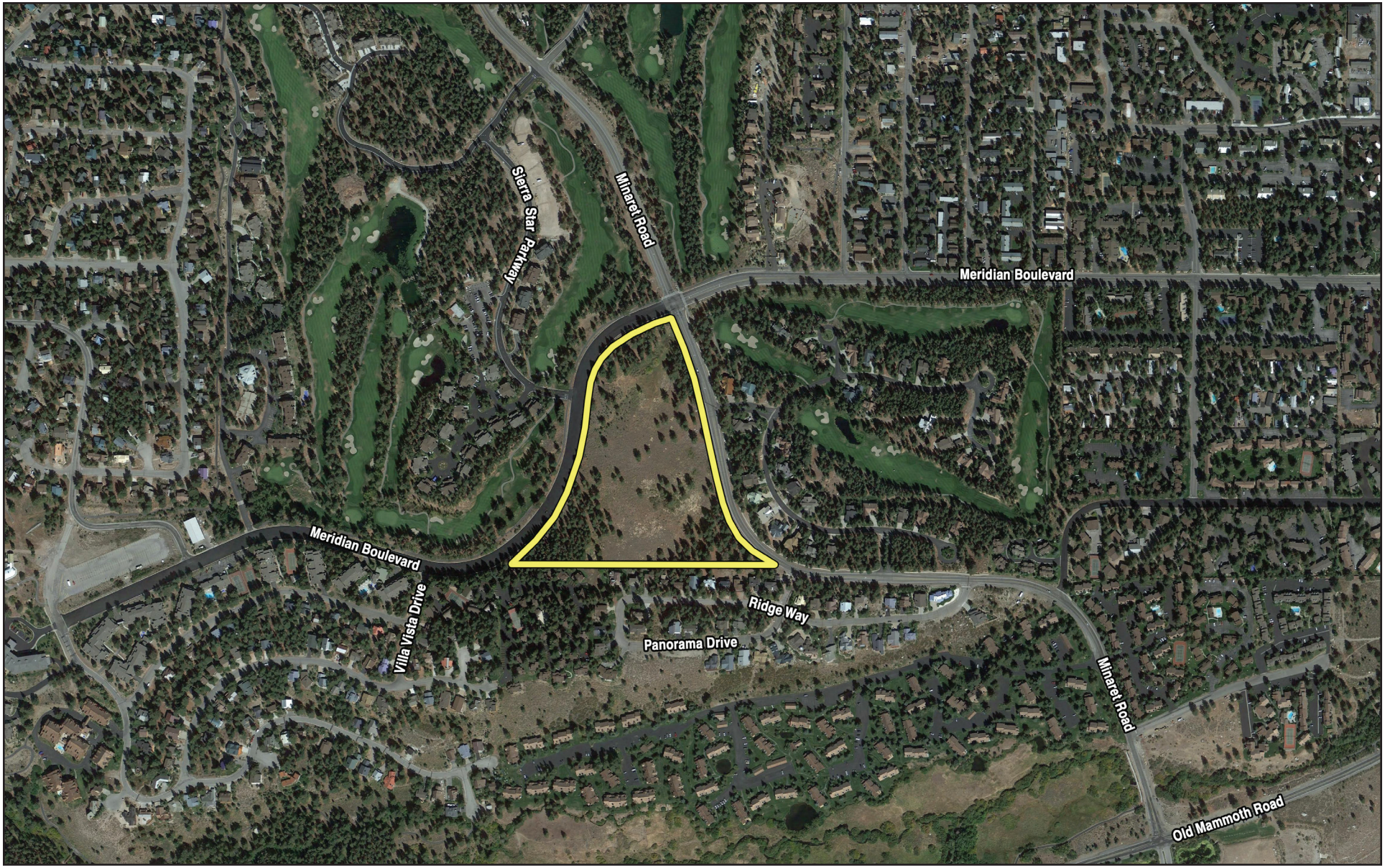
ABILITY TO MEET PROJECT OBJECTIVES

The Civic Center Parcel Alternative Site Alternative would meet some of the project's basic objectives. The existing ice rink would be relocated closer to public corridors/trails. A covered roof structure over the Town's ice rink facility would also be provided. However, a complimentary community center and new active outdoor recreational opportunities for all seasons would not be created. Further, implementation of this Alternative would preclude the Town from placing future government facilities at this property. The proposed project would not meet the Town's goals and objectives for a government facilities at this location.

7.3 "BELL SHAPED PARCEL ALTERNATIVE SITE" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The Bell Shaped Parcel is approximately 16.7 acres located at the southwest corner of the intersection of Minaret Road and Meridian Boulevard; refer to Exhibit 7-2, *Bell Shaped Parcel Alternative Site Location*. This Alternative site location currently consists of vacant land, with several trees, an open meadow, and drainage features present. Currently, there is a lack of existing public infrastructure (i.e., parking, water, electricity, sewer connections, etc.) supporting the site.



Source: Goolge Earth, 2016.

NOT TO SCALE

Michael Baker INTERNATIONAL

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ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Bell Shaped Parcel Alternative Site Location

Exhibit 7-2

Under the Bell Shaped Parcel Alternative Site Alternative, the proposed community multi-use facilities would be developed at the Bell Shaped Parcel. This Alternative would encompass an ice rink (winter)/RecZone covered by a roof structure, complimentary community center, additional storage and support space, as well as an outdoor active area, similar to the proposed project. Appropriate surface parking and utility connections would be required to be installed. Similar to the proposed project, upon project completion of construction, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation.

The following discussion evaluates the potential environmental impacts associated with the Bell Shaped Parcel Alternative Site Alternative, as compared to impacts from the proposed project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Relevant Planning

Under the Bell Shaped Parcel Alternative Site Alternative, the project features would be constructed at the Bell Shaped Parcel. Similar to the proposed project, this Alternative would not require amendments to the General Plan or Zone Code and would also require new land use approvals and permits. Implementation of this Alternative would meet the goals and objectives of the Town of Mammoth Lakes Parks and Recreation Master Plan, as complimentary facilities and a covered ice rink/RecZone would be provided along Town trails and public transit stops. Thus, the Bell Shaped Parcel Alternative Site Alternative would be neither environmentally superior nor inferior to the proposed project regarding land use consistency.

Aesthetics/Light and Glare

Under the Bell Shaped Parcel Alternative Site Alternative, the short-term visual impacts associated with grading and construction activities that would occur with the proposed project would not occur at the Mammoth Creek Park West facility. However, similar short-term visual impacts associated with grading and construction activities would occur at the Bell Shaped Parcel. New sensitive viewers located in the vicinity of the Bell Shaped Parcel would include surrounding residential uses to the east and south, as well as recreational users (Sierra Star Golf Course) to the north and west. Therefore, the project's less than significant construction-related impacts to the visual character/quality of the project site and its surroundings would be similar with this Alternative.

With development of the Bell Shaped Parcel Alternative, no visual impacts to the designated scenic views near Mammoth Creek Park West would occur. Although SR-203 is an eligible for listing as a State scenic highway, the existing Bell Shaped Parcel is not visible from SR-203. Thus, under this Alternative, the proposed community multi-use facilities would not impact this State scenic highway.

The project's less than significant long-term impacts to view blockage of visual resources and visual character at the Mammoth Creek Park West facility would be avoided with this Alternative. However, new impacts to view blockage of visual resources (as seen from Minaret Road) and visual character of this Alternative Site and surrounding community would occur. Lastly, the project's increased light and glare at Mammoth Creek Park West would not result; however, new sources of light and glare would be introduced at the Bell Shaped Parcel.

The Bell Shaped Parcel Alternative would be neither environmentally superior nor inferior to the proposed project regarding aesthetics/light and glare.

Biological Resources

Project implementation would result in less than significant impacts as the project does not contain special status species, sensitive natural communities, or jurisdictional waters and wetlands. Impacts to migratory birds and compliance with the Town's tree preservation ordinance would also be reduced to a less than significant level with the implementation of mitigation. Under the Bell Shaped Parcel Alternative, construction of the project at the Mammoth Creek Park West facility would not occur. However, construction of the community multi-use facilities would occur at the Bell Shaped Parcel, which currently consists of vacant land. Based on the U.S. Army Corps of Engineers (ACOE), Los Angeles District, *Preliminary Jurisdictional Determination Regarding Geographic Jurisdiction*, dated September 22, 2016, the ACOE preliminarily determined that waters of the U.S. may be present on the Bell Shaped Parcel. Indications of the presence of waters of the U.S., including wetlands, were noted. Thus, development of this Alternative could result in impacts to jurisdictional wetlands, whereas the project would not. Further, development of this Alternative could result in impacts to specials status plant or wildlife species or sensitive vegetation communities as well. Similar to the proposed project, this Alternative would result in tree removal activities and construction impacts could affect migratory birds.

The Bell Shaped Parcel Alternative would be environmentally inferior to the proposed project regarding biological resources, considering new potential impacts to wetlands at this location.

Cultural Resources

Cultural resources (CA-MNO-561) have been identified on the project site. Implementation of the proposed project was determined to not impact the CRHR eligibility of this resource as a whole. Although the data potential for the site has been exhausted by the Phase II investigation, the possibility for intact features (e.g., hearths, burials) within the project site remains. Although no conditions exist that suggest human remains are likely to be found on the project site, development of the project site could result in the discovery of human remains and impacts to these resources. With implementation of the recommended Mitigation Measure CUL-1 and compliance with existing State regulations regarding human remains, impacts in this regard would be reduced to less than significant levels.

Under the Bell Shaped Parcel Alternative, there would be no potential for impacts to cultural resources or human remains at the Mammoth Creek Park West facility, since development would not occur at this site. However, construction of the proposed community multi-use facilities would occur at the Bell Shaped Parcel. As the cultural resources can be commonly found throughout the Eastern Sierras, the potential to encounter unknown cultural resources within the Bell Shaped Parcel exists. Similar to the proposed project, impacts pertaining to encountering unknown human remains would be reduced to less than significant levels with compliance with existing State regulations.

The Bell Shaped Parcel Alternative would be environmentally superior to the proposed project regarding potential impacts to cultural resources, as no impacts to CA-MNO-561 would occur.

Traffic and Circulation

Under the Bell Shaped Parcel Alternative Site Alternative, the project's construction truck trips and operational net 116 p.m. peak hour (62 entering; 54 existing) trips would occur at the Bell Shaped Parcel, rather than at Mammoth Creek Park West. Therefore, the project's less than significant impacts on the study area intersections would not occur, but new traffic impacts on other Town intersections would result. Thus, the Bell Shaped Parcel Alternative would be neither environmentally superior nor inferior to the proposed project regarding traffic and circulation impacts.

Air Quality

Table 5.6-5 presents the project's anticipated daily short-term construction emissions and indicates that less than significant impacts would occur in this regard. Short-term air quality impacts from grading, excavation, and construction activities would still occur in the GBUAPCD boundaries, although at the Bell Shaped Parcel, rather than the Mammoth Creek Park West facility. Comparatively, the construction-related air quality impacts would be similar as the proposed project, given ground-disturbing activities would occur, although at a different site in the Town. Therefore, the short-term air quality impacts that would occur with the proposed project would also result under this Alternative.

The proposed project would not exceed the GBUAPCD's emissions thresholds, as indicated in Table 5.6-6. Additionally, the project would not result in CO hotspots at any of the study intersections. Although at a different site in Town, long-term air quality impacts from mobile and area source pollutant emissions would still occur as a result of Bell Shaped Parcel Alternative. This Alternative would result in similar development and vehicle trips, as compared to the proposed project. With this Alternative, similar long-term air quality impacts from mobile pollutant emissions would occur, as compared to the proposed project.

The Bell Shaped Parcel Alternative would be neither environmentally superior nor inferior to the proposed project regarding air quality impacts.

Greenhouse Gas Emissions

As indicated in Table 5.7-1, project implementation would result in 801.28 $MTCO_2eq/yr$, which is below the 900 $MTCO_2eq/yr$ threshold. Thus, less than significant short-term and operational GHG emission impacts would occur with the proposed project. Although at a different site in the GBUAPCD boundaries, the same GHG emissions from construction and operational activities would also occur with the Bell Shaped Parcel Alternative. As with the proposed project, the combined construction and operational GHG emissions would also result in less than significant impacts from a cumulative perspective under this Alternative.

The Bell Shaped Parcel Alternative would be neither environmentally superior nor inferior to the proposed project regarding GHG emissions.

Noise

Construction noise associated with the proposed project would result in less than significant impacts. The project's construction-related vibration impacts are also anticipated to be less than significant.

Short-term noise impacts from grading, excavation, and construction activities would still occur with the Bell Shaped Parcel Alternative, although in a different location in the Town. Comparatively, the project's construction-related noise impacts would no longer impact residents surrounding the Mammoth Creek Park West facility. However, new sensitive receptors near the Bell Shaped Parcel would include surrounding residential uses. Thus, short-term construction-related impacts would be similar to those considered for the proposed project.

As shown in Table 5.8-4, existing noise within the area from mobile noise ranges from 51.2 dBA to 65.1 dBA at 100 feet from the roadway centerline. Long-term noise impacts from vehicular travel on the surrounding roadway network near Mammoth Creek Park West would no longer occur with the Bell Shaped Parcel Alternative. However, new mobile noise source impacts would occur along the surrounding roadway network for the Bell Shaped Parcel under this Alternative. Comparatively, the project's mobile noise impacts would no longer impact those residents surrounding the Mammoth Creek Park West facility. However, those sensitive receptors near the Bell Shaped Parcel (i.e., residential uses) would be exposed to the project's mobile noise. Thus, mobile noise-related impacts would similar to the proposed project.

Project implementation would result in less than significant impacts from stationary noise sources with implementation of recommended mitigation. The increased noise from stationary sources from the proposed project (i.e., mechanical equipment, community center, ice rink, recreation zone, etc.) would not occur in and near Mammoth Creek Park West with this Alternative. As discussed previously, residential uses would be exposed to these stationary noise sources with implementation of this Alternative. Thus, implementation of the Bell Shaped Parcel Alternative Site Alternative would result in similar stationary noise impacts.

Thus, the Bell Shaped Parcel Alternative Site Alternative would be neither environmentally superior nor inferior to the proposed project regarding noise.

Hydrology and Water Quality

The proposed project would result in less than significant (with mitigation incorporated) short-term impacts to water quality associated with grading, excavation, and construction activities. Implementation of the Bell Shaped Parcel Alternative would similarly result in short-term impacts to water quality at the Bell Shaped Parcel, rather than Mammoth Creek Park West. Comparatively, this Alternative's short-term impacts to water quality would be similar to the proposed project (although in a different location in the Town), given this Alternative would involve a similar development on vacant land.

This Alternative would result in similar long-term operational impacts to water quality and quantity as the project, given permeable surfaces would be replaced with impermeable surfaces, new land uses would operate on the Bell Shaped Parcel, and an increase in traffic volumes would occur. However, it should be noted that the project's less than significant impacts involving a 100-year flood zone would be avoided with this Alternative, as the Bell Shaped Parcel is not located within a 100-year flood zone.

Although slightly reduced, the Bell Shaped Parcel Alternative would be neither environmentally superior nor inferior to the proposed project regarding hydrology and water quality.

ABILITY TO MEET PROJECT OBJECTIVES

The Bell Shaped Parcel Alternative would meet most of the project's basic objectives. A complimentary community center and active outdoor area that would provide recreational opportunities for all seasons would be created. A covered roof structure over the Town's ice rink facility would also be provided. However, the multi-use community facilities would not be relocated closer to public corridors/trails and public transit within the Town.

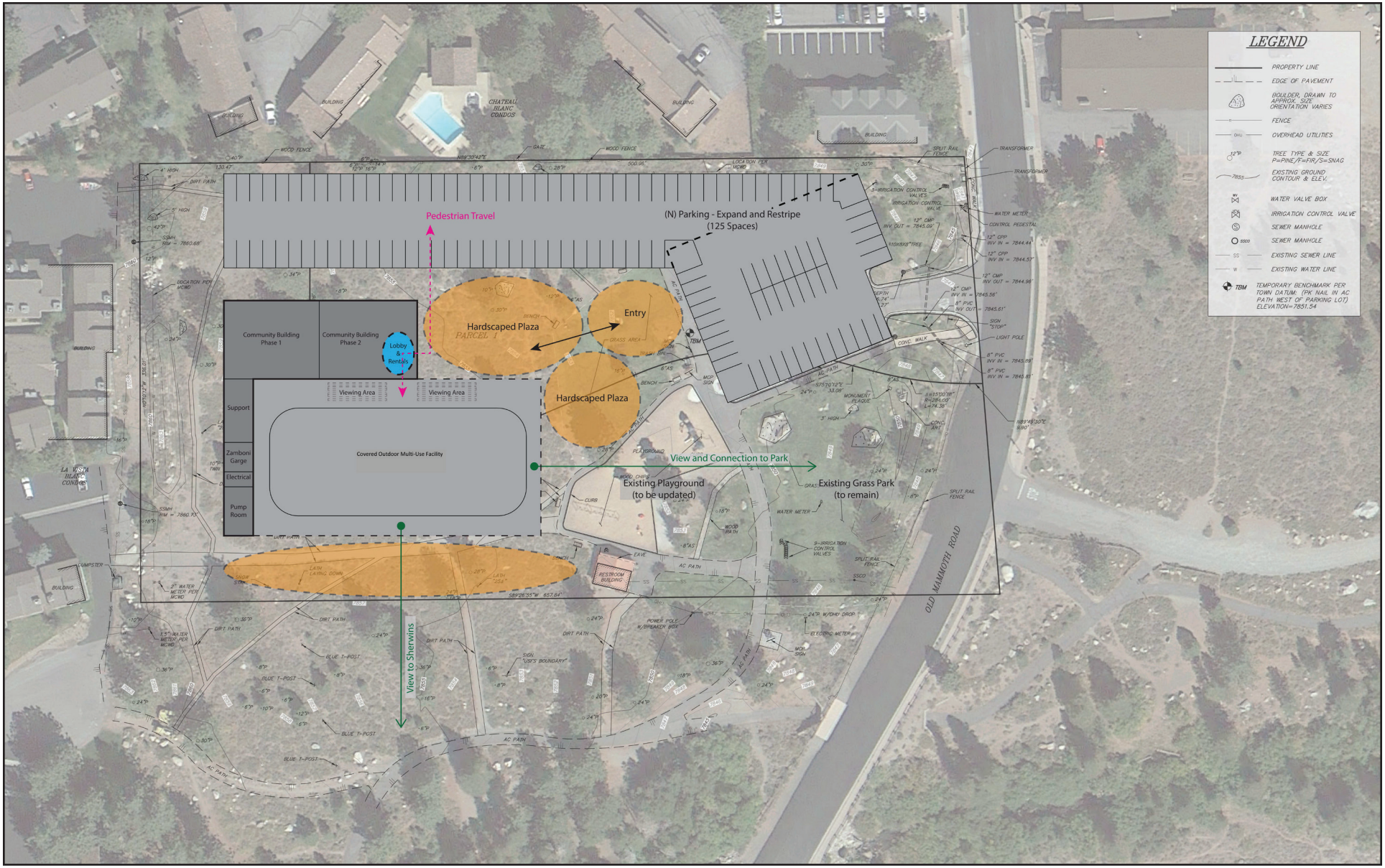
7.4 "RECONFIGURATION" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

On Friday, January 29, 2016 the Town hosted a Plan Mammoth Creek Park meeting at Town Hall, Suite Z, to present three distinct site planning alternatives (Site Concept 1, Site Concept 2, and Site Concept 3) for Mammoth Creek Park West. Each of these included the same features (multi-use facility, community center, and enhanced playground). They also include access and parking areas, public plaza's, entrance areas, and other appurtenances. Based on comments received from the public, Site Concept 3 was the general public's preference for site planning purposes, as it would reduce noise impacts to off-site sensitive receptors, has preferred public views of the Sherwin Range, and has preferred orientation for solar and protection from the sun. Based on this public meeting, the Town used Site Concept 3 and developed the proposed project's site plan, which responded to public concerns brought forth. However, for the purposes of this analysis, Site Concept 3 has been used for the Reconfiguration Alternative.

The Reconfiguration Alternative would reconfigure the proposed structures, resulting is less building square-footage for the proposed community facility; refer to Exhibit 7-3, *Reconfiguration Alternative Site Plan*. Under the Reconfiguration Alternative, the proposed new community multi-use facilities would be developed at the project site, but shifted slightly west (compared to the proposed project). The new community multi-use facilities would encompass an ice rink (winter)/RecZone covered by a roof structure, similar to the proposed project. However, additional support space and community center square-footage would be reduced by approximately 3,000 square feet. Surface parking and utility connections would be constructed, similar to the proposed project. Under this Alternative, an active outdoor recreation area would also be constructed. Similar to the proposed project, upon project completion of construction, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation.

The following discussion evaluates the potential environmental impacts associated with the Reconfiguration Alternative, as compared to impacts from the proposed project.



Source: HMC Architects; dated January 13, 2016.

NOT TO SCALE

Michael Baker INTERNATIONAL

12/16 • JN 151373

ENVIRONMENTAL IMPACT REPORT
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Reconfiguration Alternative Site Plan

Exhibit 7-3

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Relevant Planning

Under the Reconfiguration Alternative, the project features would be constructed at the project site, although with slightly less square footage for the support space/community facilities. Similar to the proposed project, this Alternative would not require amendments to the General Plan or Zone Code and would also require new land use approvals and permits. Implementation of this Alternative would meet the goals and objectives of the Town of Mammoth Lakes Parks and Recreation Master Plan, although not to the extent of the project, as fewer community facility space would be made available to the public. It also does not include reconfiguration of the existing playground facility. Thus, the Reconfiguration Alternative would be neither environmentally superior nor inferior to the proposed project regarding land use consistency.

Aesthetics/Light and Glare

Under the Reconfiguration Alternative, the short-term visual impacts associated with grading and construction activities that would occur with the proposed project would also occur with this Alternative, although to a slightly less affect as a result of fewer building square footage. Therefore, the project's less than significant construction-related impacts to the visual character/quality of the project site and its surroundings would be slightly reduced with this Alternative.

This Alternative would result in similar impacts to scenic views as the proposed project. The project's less than significant long-term impacts to the visual character at the Mammoth Creek Park West facility would remain under development of this Alternative.

The Reconfiguration Alternative would be neither environmentally superior nor inferior to the proposed project regarding aesthetics/light and glare.

Biological Resources

Project implementation would result in less than significant impacts as the project does not contain special status species, sensitive natural communities, or jurisdictional waters and wetlands. Impacts to migratory birds and compliance with the Town's tree preservation ordinance would also be reduced to a less than significant level with the implementation of mitigation. Under the Reconfiguration Alternative, construction of the project at the Mammoth Creek Park West facility would also occur with this Alternative, resulting in a similar disturbance footprint as the proposed project. Similar to the proposed project, this Alternative would not result in impacts to specials status plant or wildlife species or sensitive vegetation communities. Further, similar to the proposed project, construction impacts would affect migratory birds and would be required to comply with the Town's tree preservation ordinance.

The Reconfiguration Alternative would be neither environmentally superior nor inferior to the proposed project regarding biological resources.

Cultural Resources

Cultural resources (CA-MNO-561) have been identified on the project site. Implementation of the proposed project was determined to not impact the CRHR eligibility of this resource as a whole. Although the data potential for the site has been exhausted by the Phase II investigation, the possibility for intact features (e.g., hearths, burials) within the project site remains. Although no conditions exist that suggest human remains are likely to be found on the project site, development of the project site could result in the discovery of human remains and potential impacts to these resources. With implementation of the recommended Mitigation Measure CUL-1 and compliance with existing State regulations regarding human remains, impacts in this regard would be reduced to less than significant levels. Under the Reconfiguration Alternative, similar impacts to the existing cultural resource CA-MNO-561 exists. As with the proposed project, under this Alternative, Mitigation Measure CUL-1 would be required to reduce impacts in this regard to less than significant levels. Similar less than significant impacts to human remains would also occur with compliance with existing State regulations.

The Reconfiguration Alternative would be neither environmentally superior nor inferior to the proposed project regarding potential impacts to cultural resources, given it would involve similar ground-disturbing activities within the same development area.

Traffic and Circulation

Under the Reconfiguration Alternative, additional support space and community center square-footage at the project site would be reduced by approximately 3,000 square feet. Therefore, this Alternative would have a proportionate reduction of ADT compared to the proposed project. Comparatively, the traffic and circulation impacts under the Reconfiguration Alternative would be slightly less than the proposed project, given this Alternative would decrease the ADT. Therefore, the traffic and circulation impacts that would occur with the proposed project would be slightly reduced with this Alternative.

The Reconfiguration Alternative would be environmentally superior to the proposed project regarding traffic and circulation impacts due to slightly reduced traffic volumes.

Air Quality

Table 5.6-5 presents the project's anticipated daily short-term construction emissions and indicates that less than significant impacts would occur in this regard. Short-term air quality impacts from grading, excavation, and construction activities would also occur with the Reconfiguration Alternative. Comparatively, the construction-related air quality impacts would be slightly reduced compared to the proposed project, given construction would be approximately 3,000 fewer square feet than the proposed project. Therefore, the short-term air quality impacts that would occur with the proposed project would also occur under this Alternative, although slightly reduced.

The proposed project would not exceed the GBUAPCD's emissions thresholds, as indicated in Table 5.6-6. Additionally, the project would not result in CO hotspots at any of the study intersections. Long-term air quality impacts from mobile and area source pollutant emissions would occur with the

Reconfiguration Alternative, although to a lesser degree than the proposed project. This Alternative would result in slightly fewer vehicle trips, as compared to the proposed project. With this Alternative, mobile pollutant emissions would be proportionately reduced, as compared to the proposed project.

The Reconfiguration Alternative would be environmentally superior to the proposed project regarding air quality impacts due to slightly reduced mobile source emissions.

Greenhouse Gas Emissions

As indicated in Table 5.7-1, project implementation would result in 801.28 $MTCO_2eq/yr$, which is below the 900 $MTCO_2eq/yr$ threshold. Thus, less than significant short-term and operational GHG emission impacts would occur with the proposed project. GHG emissions from construction and operational activities would also occur with the Reconfiguration Alternative, although to a slightly lesser degree than the proposed project as a result of fewer ADT. The Alternative's combined construction and operational GHG emissions would also result in less than significant impacts from a cumulative perspective, although to a lesser degree than the proposed project.

The Reconfiguration Alternative would be environmentally superior to the proposed project regarding GHG emissions, due to decreased mobile emissions.

Noise

Construction noise associated with the proposed project would result in less than significant impacts. The project's construction-related vibration impacts are also anticipated to be less than significant. Short-term noise impacts from grading, excavation, and construction activities would also occur with the Reconfiguration Alternative due to construction of the proposed buildings and improvements at the project site. Comparatively, this Alternative's construction-related noise impacts would be slightly reduced compared to the proposed project, given this Alternative would result in slightly less building square-footage than the proposed project. Therefore, the less than significant (with mitigation incorporated) short-term noise impacts that would occur with the proposed project would occur also with this Alternative, although to a slightly lesser extent.

As shown in Table 5.8-4, existing noise within the area from mobile noise ranges from 51.2 dBA to 65.1 dBA at 100 feet from the roadway centerline. Long-term noise impacts from vehicular travel on the surrounding roadway network would occur with the Reconfiguration Alternative to a slightly lesser degree than the proposed project. Comparatively, this Alternative's mobile source noise impacts would be slightly reduced compared to the proposed project, given this Alternative would decrease the ADT. Therefore, the mobile source noise impacts that would occur with the proposed project would be slightly reduced with this Alternative.

Project implementation would result in less than significant impacts from stationary noise sources with implementation of recommended mitigation. The increased noise from stationary sources from the proposed project, including mechanical equipment, community center, ice rink, recreation zone, park playground, active outdoor recreation area, and parking, would also occur with this Alternative, but to a lesser degree. With the Reconfiguration Alternative, approximately 3,000 square feet fewer support/community center space would be developed, generating fewer stationary noises than the

proposed project. However, the project's larger structure would potentially not provide the same amount of noise attenuation to residential uses to the north. Further, the proposed facility for this Alternative would be sited approximately 30-feet west of the project's configuration (which would be closer to existing sensitive receptors). The surface parking lot would also be shifted approximately 20 feet north closer to the existing residential uses to the north. Thus, these potential stationary and intermittent noise sources would be relocated closer to existing sensitive receptors, creating increased noise impacts.

Thus, the Reconfiguration Alternative would be environmentally inferior to the proposed project regarding noise.

Hydrology and Water Quality

The proposed project would result in less than significant (with mitigation incorporated) short-term impacts to water quality associated with grading, excavation, and construction activities. Implementation of the Reconfiguration Alternative would similarly result in short-term impacts to water quality. Comparatively, this Alternative's short-term impacts to water quality would be similar to the proposed project, given this Alternative would involve a similar grading footprint.

The proposed project would result in long-term operational impacts to water quality and quantity, as permeable surfaces would be replaced with impermeable surfaces, new community multi-use facilities would operate on the project site, and an increase in traffic volumes would occur. Implementation of the Reconfiguration Alternative would result in long-term operational impacts to water quality and quantity. Comparatively, the long-term impacts to water quality would be similar to the proposed project, given this Alternative would involve a similar development (although slightly reduced).

The Reconfiguration Alternative would be neither environmentally superior nor inferior to the proposed project regarding hydrology and water quality.

ABILITY TO MEET PROJECT OBJECTIVES

The Reconfiguration Alternative would meet most of the project's basic objectives. The existing ice rink and community facilities would be relocated closer to public corridors/trails within the Town. A complimentary community center and active outdoor area that would provide recreational opportunities for all seasons would be created, although to a lesser extent than the project. A covered roof structure over the Town's ice rink facility would also be provided.

7.5 "ENVIRONMENTALLY SUPERIOR" ALTERNATIVE

Table 7-1, *Comparison of Alternatives*, summarizes the comparative analysis presented above (i.e., the alternatives compared to the proposed project). Review of Table 7-1 indicates the No Project Alternative is the environmentally superior alternative, as it would avoid or lessen the majority of impacts associated with development of the proposed project. According to CEQA Guidelines Section 15126.6(e), "if the environmentally superior alternative is the "no project" alternative, the EIR

shall also identify an environmentally superior alternative among the other alternatives." Accordingly, an environmentally superior alternative among the other alternatives is identified below.

Table 7-1
Comparison of Alternatives

Sections	No Project	Civic Center Parcel Alternative Site Alternative	Bell Shaped Parcel Alternative Site Alternative	Reconfiguration Alternative
Land Use and Relevant Planning	▲	▲	=	=
Aesthetics/Light and Glare	▼	▼	=	=
Biological Resources	▼	▼	▲	=
Cultural Resources	▼	▼	▼	=
Traffic and Circulation	▼	=	=	▼
Air Quality	▼	=	=	▼
Greenhouse Gas Emissions	▼	=	=	▼
Noise	▼	▼	=	=
Hydrology and Water Quality	=	▼	=	=

▲ Indicates an impact that is greater than the proposed Project (environmentally inferior).
▼ Indicates an impact that is less than the proposed Project (environmentally superior).
= Indicates an impact that is equal to the proposed Project (neither environmentally superior nor inferior).
* Indicates a significant and unavoidable impact.

It should be noted that no significant and unavoidable impacts have been identified for the proposed project. However, the environmentally superior alternative would be the Civic Center Parcel Alternative Site Alternative, as impacts are less than the proposed project. As concluded in the analysis presented above, the Civic Center Parcel Alternative Site Alternative would meet some of the project's basic objectives. The existing ice rink would be relocated closer to public corridors/trails. A covered roof structure over the Town's ice rink facility would also be provided. However, a complimentary community center and new active outdoor recreational opportunities for all seasons would not be created. Further, implementation of this Alternative would preclude the Town from placing future government facilities at this property. The proposed project would not meet the Town's goals and objectives for a government facilities at this location.

8.0 Effects Found Not To Be Significant

8.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

The Town of Mammoth Lakes (Town) conducted an analysis of the proposed project's effect on specific environmental topic areas, included as part of the Environmental Checklist form presented in Appendix G of the *CEQA Guidelines*, during the preparation of this EIR. In the course of this evaluation, certain impacts of the project were found to be less than significant due to the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in primary analysis sections of the Draft EIR. In accordance with *CEQA Guidelines* Section 15128, the following section provides a brief description of potential impacts found to be less than significant. The lettered analyses under each topical area directly correspond to their order in CEQA's Appendix G checklist.

AESTHETICS. *Would the project:*

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. No designated State scenic highways are located adjacent to the site.[1] However, State Route 203 (SR-203) (Main Street), located approximately 0.73-mile north of the project site (trending in an east/west direction), is eligible to become a State Scenic Highway, but has not yet been officially designated. The nearest Officially Designated State Scenic Highway is U.S. Route 395 (Highway 395), located approximately 2.8 miles to the east of the project site. Views of the project site are not afforded from SR-203 or Highway 395 due to intervening structures, topography, and vegetation. Thus, the proposed project would not damage any scenic resources within the viewshed of a state scenic highway. No impacts would occur in this regard.

AGRICULTURE AND FORESTRY RESOURCES. *Would the project:*

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. The project site currently consists of Mammoth Creek Park West, and does not support agricultural use and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[2] Thus, project implementation would not result in the conversion of farmland to non-agricultural uses. No impact would occur.

[1] State of California Department of Transportation, *California Scenic Highway Mapping System*, http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm, accessed on July 22, 2016.

[2] California Department of Conservation, *Farmland Mapping and Monitoring Program, California Important Farmland Finder*, http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx, accessed on September 14, 2016.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. The existing zoning and proposed zoning does not include any agricultural-related zoning designations, nor is the site part of a Williamson Act contract. As illustrated on the General Plan Land Use Diagram, the project site is designated as Open Space (OS), and zoned as Public and Quasi Public (P-QP) on the Zoning Map. The land uses surrounding the project site are not zoned for agricultural uses or in a Williamson Act contract. Thus, no impact would occur.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

No Impact. The project site is located within an area known for its forestland, and the adjoining parcel to the south is owned by the United States Forestry Service (USFS). However, the project site is not zoned or used for forestland resource production. The project vicinity is comprised of residential, commercial, office, institutional, and recreational/open space uses. Forestry operations do not occur at the project site or in the project vicinity. Project implementation would not result in the rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur in this regard.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. Refer to Agricultural Resources Response (c).

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. Refer to Agricultural Resources Responses (a) through (c). The project site consists of Mammoth Creek Park West and is located in the vicinity of developed mixed land uses (including residential, commercial, office, and institutional uses). Implementation of the proposed project would not result in the conversion of designated farmland or forest land to non-agricultural/non-forest land use. No impacts would occur in this regard.

AIR QUALITY. *Would the project:*

e) *Create objectionable odors affecting a substantial number of people?*

Less Than Significant Impact. Construction activity associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon project completion. Proposed land uses could create odors. However, odors during project operations are not expected to be objectionable. A less than significant impact would result.

BIOLOGICAL RESOURCES. *Would the project:*

c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. The *Habitat Assessment for the Mammoth Creek Park West New Community Multi-Use Facilities Project* (Habitat Assessment), prepared by Michael Baker International, Inc.,[3] did not identify any drainage or wetland features within the project footprint that would be considered jurisdictional by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), or California Department of Fish and Wildlife (CDFW). Thus, no regulatory approvals from the USACE, RWQCB, or CDFW would be required. The proposed project would not result in any impacts to USACE, RWQCB, or CDFW jurisdictional waters or wetlands. No impacts would occur in this regard.

f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

No Impact. The project site and surrounding vicinity are not located within an area covered by a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan.[4,5] No impact would occur in this regard.

CULTURAL RESOURCES. *Would the project:*

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No Impact. Based on the General Plan PEIR, there are no known unique paleontological resources or sites, and no known unique geologic features in the developable portions of the Town of Mammoth Lakes. The soils in the project area are glacial till and relatively recent volcanic materials, and therefore no paleontological resources would be expected to occur in the area. Given the lack of potential for paleontological resources within or near the project site, the proposed grading and construction activities for the project would not have the potential to result in significant adverse impacts to such resources. As such, no impact would occur in this regard.

[3] Michael Baker International, *Habitat Assessment for the Mammoth Creek Park West New Community Multi-Use Facilities Project*, August 2, 2016.

[4] U.S. Fish and Wildlife Service, *Habitat Conservation Plan Documents,* https://www.fws.gov/carlsbad/HCPs/HCP_Docs.html, accessed September 14, 2016.

[5] California Department of Fish and Wildlife, *NCCP Plan Summaries,* https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans, accessed September 14, 2016.

GEOLOGY AND SOILS. *Would the project:*

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

1) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

No Impact. The project site is located within the Sierra Nevada Mountain range, a tilted fault-block that is bordered on the east by the Sierra Nevada frontal-fault system. The region is considered to be an active seismic region. For the purposes of the Alquist-Priolo Earthquake Fault Zoning Map Act, the State of California defines active faults as those that have historically produced earthquakes or shown evidence of movement within the past 11,000 years (during the Holocene Epoch).[6] Active faults may be designated as Earthquake Fault Zones under the Alquist-Priolo Earthquake Fault Zoning Act, which includes standards regulating development adjacent to active faults. The site is not located within an Earthquake Fault Zone or Alquist-Priolo Hazard Zone. The nearest known active regional fault is the Hartley Springs fault, which is located approximately 45 miles to the northwest. The closest mapped earthquake fault zone is located approximately two miles to the northwest of the project site.

2) *Strong seismic ground shaking?*

No Impact. Due to existing site conditions, including the relatively flat nature of the site and its immediate surroundings, the project is not anticipated to result in a substantial adverse effect to people or structures resulting from strong seismic ground shaking. In addition, according to the General Plan PEIR, the Town has primarily very low to moderate ground instability. Further, all building construction associated with the project would be subject to the Town's existing construction ordinances and the California Building Code (CBC) in order to minimize hazards during a seismic event. The CBC includes standards related to soils and foundations, structural design, building materials, and structural testing and inspections. As such, the potential for ground shaking is considered low.

3) *Seismic-related ground failure, including liquefaction?*

No Impact. Liquefaction occurs when loose, water-saturated sediments lose strength and fail during strong ground shaking. Liquefaction is defined as the transformation of granular material from a solid state into a liquefied state as a consequence of increased pore-water pressure. According to the General Plan PEIR, liquefaction occurs in areas with shallow groundwater and where finer grained sands make up a significant part of the near surface (less than 30 feet above mean sea level) soil section. Within the Town, areas of alluvium and moraine material with shallow groundwater have the potential for liquefaction. Areas subject to liquefaction of fine-grained alluvium are in the low areas including Sherwin

[6] California Department of Conservation and California Geologic Survey. Potentially active faults have demonstrated displacement within the last 1.6 million years (during the Pleistocene Epoch), but do not displace Holocene Strata. Inactive faults do not exhibit displacement younger than 1.6 million years before the present.

Meadows, areas to the north and south of the Old Mammoth District, and an area of shallow groundwater near the Meridian Boulevard and Minaret Road. The project would be required to comply with the State of California's minimum standards for structural design and construction provided in the CBC. Given that the potential for liquefaction is considered very low and the project would comply with applicable requirements, the potential for seismic-related ground failure at the project site, including liquefaction, is low.

4) *Landslides?*

No Impact. Landslides are earthquake-induced ground failure that occurs primarily in areas with steep slopes, which have loose, granular soils that lose their cohesive characteristics when water-saturated. Landslides are primarily limited to areas with a combination of poorly consolidated material and slopes that exceed 30 percent. Based on the General Plan PEIR, there are slopes with slopes that exceed 30 percent in portions of Mammoth Knolls, Mammoth Slopes, and areas of Old Mammoth. However, there has been no landslide activity in the Town, where the project is located. Additionally, there have been no documented landslides that have occurred on-site. Therefore, no impact would occur in this regard.

b) *Result in substantial soil erosion or the loss of topsoil?*

Less Than Significant Impact. The highest erosion potential occurs in loose and/or shallow soils on steep slopes. Currently, the project site is generally level and consists of Mammoth Creek Park West. Construction of the project would produce loose soils, which are subject to erosion if the surface area were to be disturbed or vegetation were to be removed. Grading and trenching for construction may expose soils to short-term wind and water erosion. The proposed project would be subject to the Town Municipal Code requirements pertaining to the minimization of soil erosion during earthwork activities. Upon compliance with the Town Municipal Code, project implementation would reduce potential impacts pertaining to soil erosion and/or the loss of topsoil to less than significant levels.

c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less Than Significant Impact. Refer to Geologies and Soils Response (a). In order for the potential effects of liquefaction to be manifested at the ground surface, the soils generally have to be granular, loose to medium-dense and saturated relatively near the ground surface, as well as be subjected to ground shaking of a sufficient magnitude and duration. Within the Town, areas of alluvium and moraine material with shallow groundwater have the potential for liquefaction according to the General Plan PEIR. Areas subject to liquefaction of fine-grained alluvium are in the low areas including Sherwin Meadows, areas to the north and south of the Old Mammoth District, and an area of shallow groundwater near the Meridian Boulevard and Minaret Road. The project would be required to comply with the State of California's minimum standards for structural design and construction provided in the CBC. Given that the potential for liquefaction is considered very low and the project would comply with applicable requirements, potential impacts with regard to seismic-related ground failure would be less than significant.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

No Impact. Based on the General Plan PEIR, no expansive soils have been mapped or encountered in the Town. Thus, no impacts are anticipated in this regard.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

No Impact. No septic tanks or alternative wastewater systems are currently located within the project site and none would be constructed as part of the proposed project. Thus, no impacts would occur in this regard.

HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact. The project involves the construction of a residential community multi-use facility and no significant hazards to the public or environment are anticipated during the development of the project or the occupancy of the improvements due to requirements to comply with Building, Fire and other Uniform Code statutes related to the protection of the public's health and safety. No impacts would occur in this regard.

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

No Impact. The project consists of Mammoth Creek Park West and is surrounded by residential uses, office uses, and vacant land. The project is not anticipated to result in accidental releases of hazardous materials.

As noted above, project operations would not involve the routine transport, use, or disposal of substantial quantities of hazardous materials. During operations, it is anticipated that strict standards implemented by the Mono County Health Department would be implemented, if necessary. No impacts would occur in this regard.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact. The nearest school to the project site is Mammoth High School, located at 365 Sierra Park Road, Mammoth Lakes, approximately 0.34 mile northeast of the project site.[7] Therefore, the property is located more than one-quarter mile from the nearest school and no impacts would occur in this regard.

[7] Google Earth, 2016.

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

No Impact. Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and State Water Resources Board (SWRCB) to compile and update a regulatory sites listing (per the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations (CCR), to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

The project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5[8] and, therefore, would not create a significant hazard to the public or the environment. Thus, no impacts would occur in this regard.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. The project site is not located within an airport land use plan or within two miles of an airport or private airstrip. No impacts would occur in this regard.

f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. Refer to Hazards and Hazardous Materials Response (e).

g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

No Impact. Project construction activities could result in short-term temporary impacts to street traffic along Old Mammoth Road. While temporary lane closures may be required, travel along surrounding roadways would remain open and would not interfere with emergency vehicle access in the site vicinity. The project does not conflict with the adopted Town of Mammoth Lakes Emergency Operations Plan. No impacts would occur in this regard.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact. The Town and surrounding area have been rated as having a very high fire potential. Thus, implementation of the proposed project could expose people or the new structure to risk involving wildland fires, as would be true for any development within the Town.

[8] Department of Toxic Substances Control, http://www.envirostor.dtsc.ca.gov/public/mandated_reports.asp, accessed on September 14, 2016.

The proposed project is subject to compliance with the Uniform Fire Code, which was amended by the Mammoth Lakes Fire Protection District (MLFPD) to ensure that Fire Code regulations are met. Project implementation would result in a less than significant in this regard.

HYDROLOGY AND WATER QUALITY. *Would the Project:*

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Less Than Significant Impact. The proposed project would not result in any groundwater extraction or the depletion of groundwater supplies. Based on the *Preliminary Drainage Study* (Drainage Study), prepared by Triad/Holmes Associates, dated August 12, 2016 (enclosed in Appendix 11.7, *Drainage Study*), the proposed impervious condition of the project site would be approximately 62.5 percent, leaving the remaining 37.8 percent of the project site pervious. Implementation of the proposed project would still allow infiltration at the project site. Thus, impacts in this regard would be less than significant.

g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

No Impact. The project does not propose the construction of new housing. Thus, no impacts would occur in this regard.

j) *Result in inundation by seiche, tsunami, or mudflow?*

No Impact. According to the General Plan PEIR, the Town is not located in an area that would be impacted by a tsunami. The impacts from mudflows are considered to be negligible given the varying topography and heavily vegetated nature of the Town. Further, the project site is not located within the vicinity of a water body that would cause inundation of the project site by a seiche. Thus, no impacts would result in this regard.

LAND USE AND PLANNING. *Would the project:*

a) *Physically divide an established community?*

No Impact. The project site is comprised of Mammoth Creek Park West near the edge of the developed portion of the Town; therefore, the proposed project would not physically divide an established community. Additionally, the proposed development (recreation uses) is consistent with the existing Public and Quasi Public (P-QP) zoning designation. No impacts would occur in this regard.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

No Impact. As discussed in Biological Resources Response (f), the project site and surrounding vicinity are not located within an area covered by a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan. No impact would occur in this regard.

MINERAL RESOURCES. *Would the project:*

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. Based on Figure 4.4-1, *Mineral Resource Map,* of the General Plan PEIR, the project site is not known to contain mines, mineral deposits, or other mineral resources. Thus, no impacts are anticipated in this regard.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

Less Than Significant Impact. Refer to the Mineral Resources Response (a).

NOISE. *Would the project:*

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The project site is not located within an airport land use plan area or within two miles of a public airport or public-use airport. The Mammoth Yosemite Airport is located approximately six miles southeast from the project site. No impact would occur in this regard.

f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The project is not located in the vicinity of a private airstrip. Therefore, the proposed project would not expose people to excessive noise levels associated with the operation of a private airstrip. No impact would occur in this regard.

POPULATION AND HOUSING. *Would the project:*

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

No Impact. The project would serve the existing Mammoth Lakes community, and does not include any growth-inducing land uses. In addition, employees serving the existing facilities would serve the proposed project, resulting in only nominal increases in employees, if any. Thus, no impact would result in this regard.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

No Impact. No existing housing is present on-site. Thus, implementation of the proposed project would not result in the displacement of existing housing. No impact would result in this regard.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

Less Than Significant Impact. Refer to Population and Housing Response (b).

PUBLIC SERVICES.

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

1) *Fire protection?*

Less Than Significant Impact. The MLFPD provides fire protection and emergency response to the project site. The MLFPD service area includes approximately 3,000 acres of mountain resort area in and around the Town and over 2,500 acres within the Town. The MLFPD currently responds to calls for service from two fire stations. Fire Station No. 1, the primary station, is located at the northeast corner of the Main Street and Forest Trail intersection, and is located approximately 0.77-mile north of the project site. Fire Station No. 2 is located at 1574 Old Mammoth Road, located approximately 0.63-mile southwest of the project site. According to the General Plan PEIR, fire ratings range from one to ten, with one representing the best rating. As of 2005, the Town has a fire rating of three, as a result of the recent Insurance Service evaluation conducted within the Town. The project could result in an increase in the quantity of emergency calls received by the MLFPD due to the increase in activity and use in the area. The project would comply with the applicable provisions as set forth in the Town Municipal Code. While the project could result in an increase in calls, the project would not result in development that is unique in the area. The project would be subject to review by the MLFPD to ensure that the project complies with fire requirements. Therefore, with compliance with the MLFPD's requirements, impacts would be less than significant in this regard.

2) *Police protection?*

Less Than Significant Impact. Police protection and law enforcement in the Town of Mammoth Lakes are provided by the Mammoth Lakes Police Department (MLPD), the Mono County Sheriff's Department (MCSD), and the California Highway Patrol (CHP). The MLPD provides all police services for the project area. Criminal investigation calls, the primary job function of the MLPD, increase during the peak visitor months. MLPD is responsible for all traffic-related offences within the Town, except for along SR-203 where CHP also provides traffic-related services. The MLPD staff is currently comprised of 10 sworn officers and 3 civilian employees, all of whom operate out of the MLPD facility

located at 568 Old Mammoth Road.[9] Typically, two to four sworn officers are on duty at any one time. Dispatches for both the MLPD and MCSD are routed by Mono County.

The increase in visitors resulting from implementation of the project could result in a greater volume of emergency calls for police services and could potentially impact police protection and law enforcement services and facilities. However, the increase would be nominal as the project essentially is relocating the existing community facility and ice rink onto the project site.

3) *Schools?*

Less Than Significant Impact. The Town is located within the jurisdiction of the Mammoth Unified School District (MUSD). The MUSD provides education to students in grades kindergarten (K) through grade 12 with facilities that include Mammoth High School, Mammoth Middle School, Mammoth Elementary School, and Sierra High School. The average per pupil spending throughout the District is approximately $7,425 per student per year, including approximately $1,400 per student in federal and state aid for categorical, special education, and support programs. As the proposed community multi-use facilities would utilize existing Town staff for operations, an increase in employees would not occur. Therefore, the project would not generate additional population or students that would enroll at MUSD schools and a less than significant impact would occur in this regard.

4) *Parks?*

Less Than Significant Impact. The project would include active recreational opportunities, including an ice rink/RecZone, and an active outdoor recreation area to the west of the new community multi-use facilities. In addition, the existing park playground at Mammoth Creek Park West would be reconfigured and improved, and would remain on-site. As such, the project would provide Town residents access to recreational opportunities at the project site. Therefore, impacts would be less than significant in this regard.

5) *Other public facilities?*

Less Than Significant Impact. Other public services potentially impacted include public libraries, hospitals/healthcare, and public roadway maintenance. Library services in the Town are provided by the Mono County Library System. The Mammoth Lakes Library Branch, which is located at 400 Sierra Park Road, is approximately 17,000 square feet in size. The Mammoth Lakes Library was constructed in 2007 and was a substantial expansion from the previous library facility, which was approximately 7,000 square feet. The old library was located at 960 Forest Trail. In 2014 the Mammoth Lakes Library Branch served a population of approximately 85,000 persons.[10] This includes residents of the Town, residents of Mono County, as well as visitors to the area. The Mammoth Lakes Library Branch includes five full time equivalency staff, including the custodian.

[9] Correspondence with Chief Al Davis, Mammoth Lakes Police Department, conducted via e-mail on October 9, 2016.

[10] Town of Mammoth Lakes, *Land Use Element/Zoning Code Amendments and Mobility Element Update Environmental Impact Report*, SCH No. 2015052072, dated June 2016.

As development associated with the project would serve the existing Mammoth Lakes community and does not include any growth-inducing land uses, there would be no increase in demand for library services. Therefore, impacts would be less than significant in this regard.

RECREATION. ***Would the project:***

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less Than Significant Impact. The proposed project does not include any residential land uses. The project's proposed community multi-use facilities would increase the available recreational services and amenities and support existing park and recreational activities in the area. The proposed project also includes public open spaces consisting of pedestrian plazas, landscape areas, and other amenities to be located to the north, east, and south of the proposed structure, as well as an active recreation area to the west. The proposed recreational facilities would provide increased recreational services to benefit the existing Mammoth Lakes community. Therefore, potential impacts to park and recreational facilities would be less than significant.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?*

Less Than Significant Impact. Refer to Recreation Response (a).

TRANSPORTATION/TRAFFIC. ***Would the project:***

b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

No Impact. Currently, the project site is not subject to a Congestion Management Program (CMP). Thus, potential impacts associated with traffic on CMP facilities would not occur.

c) *Result in change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

No Impact. The Mammoth Yosemite Airport is located approximately six miles east of the project site. As the proposed project consists of new community multi-use facilities, a change in air traffic patterns at this airport facility would not result. Impacts in this regard are less than significant.

e) *Result in inadequate emergency access?*

Less Than Significant Impact. Development of the proposed project would maintain existing emergency access to persons at the project site via access along Old Mammoth Road. Refer to Hazards and Hazardous Materials Response (g).

The project would be required to comply with applicable MLFPD codes for emergency vehicle access. All appropriate fire and emergency access conditions would be incorporated into the design of the project. In addition, the project may not impede emergency access for adjacent or surrounding properties during construction or operation. Thus, with compliance with the Town's regulations, site access would be sufficient for emergency vehicles and impacts in this regard would be less than significant.

f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

Less Than Significant Impact. The project would not conflict with adopted policies, plans, or programs supporting alternative transportation. The proposed project would result in beneficial impacts related to travelers within the project vicinity, since the project proposes multi-use community and recreational facilities situated along multi-use pathways and in close proximity to major transit stops.

Pedestrian access is currently provided via sidewalks on the eastern and western portions of Old Mammoth Road. There are no designated bike lanes along Old Mammoth Road in the vicinity of the project site. However, there are existing Class I Paved Multi-Use Paths along Old Mammoth Road and Mammoth Creek Road, adjacent to the project site. The multi-use paths provide for bicycle and pedestrian travel on a paved right-of-way completely separated from any street or highway. In addition, pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site, increasing access to public recreational amenities and allowing for pedestrian integration and improved circulation within the area. Eastern Sierra Transit and town trolley stops are currently located immediately adjacent to the project site along Old Mammoth Road and Mammoth Creek Road and in close proximity to the project area along Old Mammoth Road and Chateau Road. Access to the transit stops would be maintained, further encouraging reduction in automobile trips by providing access to transit. Existing access to the site via walking, bicycling, and public transit would be improved compared to existing conditions, and would not be interrupted or obstructed. Access to the project site would be required to comply with all Town design standards. With compliance with Town design standards, impacts would be less than significant in this regard.

UTILITIES AND SERVICE SYSTEMS. *Would the project:*

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

Less Than Significant Impact. Wastewater treatment services are provided by the Mammoth Community Water District (MCWD). The wastewater treatment facility for the Town provides advanced secondary treatment, which includes biological treatment, filtration, and disinfection through utilization of chlorine. Treated water is stored in 10 distribution system storage reservoirs. According to the MCWD *2010 Urban Water Management Plan*, the existing wastewater treatment facility is designed to collect and treat wastewater of approximately 1,666 acre-feet per year in 2015 to approximately 2,330 acre-feet per year in 2030. The wastewater projections to be collected resulted from the average ratio of collected wastewater to total water demand for 2005 and 2010 and was applied to projected water demand for 2015-2030. Treated wastewater is discharged to Laurel Pond, located approximately 5.5 miles southeast of Mammoth Lakes. Laurel Pond provides

secondary treatment of approximately 1,145 acre-feet per year to approximately 1,677 acre-feet per year in 2030. The proposed project would result in the construction of new community multi-use facilities at the project site. As the project does not include any growth-inducing land uses, it is not expected that the proposed project would exceed the MCWD wastewater treatment requirements. Therefore, impacts would be less than significant.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less Than Significant Impact. Per a settlement agreement between Los Angeles Department of Water and Power (DWP) and the Mammoth Community Water District (MCWD) resolving two recent court cases, future water demands in the MCWD's service area should not exceed 4,387 acre-feet annually. Following a dry winter and a warm summer as well as a decline in groundwater aquifers, the MCWD Board enacted the "2013 MCWD Level I Water Restrictions" to place restrictions on water use. As such, project implementation could require additional water supplies to meet the increased demands of the proposed project. The existing on-site restroom and ice rink facilities water demands are approximately 2,300 gallons per day (gpd).[11] The proposed restrooms, ice rink/RecZone, and community space would demand approximately 8,500 gpd.[12] Project implementation would result in a net increase of 6,200 gpd in water demand (or 6.94 acre-feet per year).

The MCWD's 2005 Urban Water Management Plan (UWMP) considered the *Town of Mammoth Lakes Parks and Recreation Master Plan* (Parks and Recreation Master Plan) in demands for water for public sector uses from approximately 374 acre feet annually in 2010 to approximately 660 acre feet annually in 2025. The proposed project is within the Parks and Recreation Master Plan, which would comprise a small portion of the demand for treated water at General Plan build-out and demand is anticipated to occur within the anticipated growth parameters (660 acre feet by 2025).[13] In addition, the MCWD's 2010 UWMP indicates that available water sources particularly groundwater would be sufficient to serve the Town through 2030. Based on the 2010 UWMP, projected water demand by 2020 is anticipated to be 3,387 acre feet per year (and an available supply of 4,436 acre feet per year) and by 2030 is anticipated to be 4,180 acre feet per year (and an available supply of 4,436 acre feet per year). Thus, the MCWD anticipates having a surplus of 1,049 acre fee per year in 2020 and 256 acre feet per year by 2030. The proposed project would result in a net increase of 6.94 acre feet per year, which would only be 0.07 percent of the surplus water supply anticipated in 2020 and 2.7 percent of the surplus water supply anticipated in 2030 for an average year.

Further, it is acknowledged that the MCWD has published the *Draft 2015 Urban Water Management Plan* (Draft 2015 UWMP), which accounts for the Town's Parks and Recreation Master Plan, the Town's allocated 4,387 acre-feet per year, as well as updated cumulative projects (including recent changes to the Town's Floor Area Ratio [FAR] regulations). It is acknowledged that the Draft 2015 UWMP considers the Town's General Plan buildout horizon of 2035. Based on the Draft 2015

[11] Correspondence between the Town of Mammoth Lakes Public Works Department and HMC Architects, conducted via e-mail on December 20, 2016.

[12] Ibid.

[13] PCR, *Town of Mammoth Lakes Parks and Recreation Master Plan Project Final Initial Study/Mitigated Negative Declaration,* December 2011.

UWMP, projected water demand by 2020 is anticipated to be 2,264 acre feet per year (and an available supply of 2,299 acre feet per year) and by 2035 is anticipated to be a demand of 3,719 acre feet per year (and an available supply of 3,762 acre feet per year). Thus, the MCWD anticipates having a surplus of 35 acre fee per year in 2020 and 43 acre feet per year by 2035. The proposed project would result in a net increase of 6.94 acre feet per year, which would only be 19.8 percent of the surplus water supply anticipated in 2020 and 16.1 percent of the surplus water supply anticipated in 2035 for an average year.

Therefore, the project's water demand would be met. The proposed project does not include any growth-inducing land uses. Therefore, the Town would have the necessary infrastructure and water supply to accommodate the proposed project. Impacts to water demand, water supplies, and infrastructure would be less than significant in this regard. Also, refer to Utilities and Service Systems Response (a).

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less Than Significant Impact. Refer to Hydrology and Water Quality Impact Statements HWQ-2 and HWQ-3.

d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Less Than Significant Impact. Refer to Hydrology and Water Quality Response (b).

e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Less Than Significant Impact. Refer to Hydrology and Water Quality Response (b).

f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Less Than Significant Impact. Solid waste collection service for the Town is currently provided by Mammoth Disposal, Incorporated. All solid waste generated by the Town is transferred to the Benton Crossing Landfill for disposal. The landfill is approximately 145 acres in size with a landfill footprint of approximately 72 acres. The maximum daily permitted throughput is 500 tons per day. The landfill has a remaining capacity of 695,047 cubic yards of compacted waste and is projected to close in December 2023.[14] The Town is working on a long term solution to address solid waste over the next 30 years. Project implementation could increase solid waste generation, placing greater demands on collection and disposal services, and diminishing landfill capacity. With the existing capacity in the Benton Crossing Landfill, there is adequate landfill capacity that can accommodate the waste generation and disposal needs for the proposed project. Further, all future development would be subject to compliance with the Town's Source Reduction and Recycling Element (SRRE)

[14] CalRecycle, *Facility/Site Summary Details: Benton Crossing Landfill*, http://www.calrecycle.ca.gov/SWFacilities/Directory/26-AA-0004/Detail/, accessed September 14, 2016.

for solid waste reduction. Therefore, with compliance with the Town's regulations, impacts would be less than significant.

g) *Comply with federal, state, and local statutes and regulations related to solid waste?*

No Impact. The proposed project would comply with all applicable Federal, State, and local statutes and regulations related to solid waste. As the project would generate solid waste, it would be subject to compliance with the Town's SRRE and Integrated Solid Waste Management Plan (ISWMP) provisions, and the Municipal Code Chapter 8.12, *Solid Waste Management*, for solid waste reduction. The proposed project would also be required to comply with Assembly Bills 939 and 341, which require measures to enhance recycling and source reduction efforts, and expand opportunities for additional recycling services and recycling manufacturing facilities. Therefore, the project would not conflict with Federal, State, or local statutes and regulations related to solid waste, and no impact would occur in this regard.

9.0 Organizations and Persons Consulted

9.0 ORGANIZATIONS AND PERSONS CONSULTED

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Ms. Leslie Suen, Engineer

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11.1 Initial Study/Notice of Preparation and Comment Letters

NOTICE OF PREPARATION

Date: June 2, 2016

To: Reviewing Agencies and Other Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Report

Project Title: Mammoth Creek Park West New Community Multi-Use Facilities

Project Applicant: Town of Mammoth Lakes

Scoping Meeting: June 8, 2016 at 2:00 p.m.

The purpose of this Notice of Preparation (NOP) is to notify potential Responsible Agencies (Agencies) that as the Lead Agency, the Town of Mammoth Lakes, plans to prepare an Environmental Impact Report (EIR) for the proposed Mammoth Creek Park West New Community Multi-Use Facilities (the project) and to solicit comments and suggestions regarding (1) the scope and content of the EIR and (2) the environmental issues and alternatives to be addressed in the EIR (California Environmental Quality Act [CEQA] Guidelines §15082). This NOP also provides notice to interested parties, organizations, and individuals of the preparation of the EIR and requests comments on the scope and contents of the environmental document.

The Town of Mammoth Lakes requests your careful review and consideration of this notice, and it invites any and all input and comments from interested Agencies, persons, and organizations regarding the preparation of the EIR. Pursuant to CEQA §21080.4, Agencies must submit any comments in response to this notice no later than 30 days beginning June 2, 2016, and ending the close of business on July 1, 2016. This NOP is available for view at:

1. Town of Mammoth Lakes, Community and Economic Development Department, 437 Old Mammoth Road, Suite R, Mammoth Lakes.

2. Mono County Library, 400 Sierra Park Road, Mammoth Lakes.

3. Town of Mammoth Lakes website: http://www.townofmammothlakes.ca.gov/index.aspx?nid=158

All comments or other responses to this notice should be submitted in writing to:

Ms. Sandra Moberly, Community and Economic Development Manager
Town of Mammoth Lakes
437 Old Mammoth Road, Suite R
Mammoth Lakes, California 93546
smoberly@townofmammothlakes.ca.gov
760.934.8989, ex. 251

The Town will conduct a public scoping meeting in conjunction with this NOP in order to present the project and the EIR process and to receive public comments and suggestions regarding the scope and content of the EIR. The meeting will be held on June 8, 2016 at 2:00 p.m. at Town Council Chambers, located at 437 Old Mammoth Road, Suite Z, Mammoth Lakes, California 93546.

Project Location. The Town of Mammoth Lakes (Town) is located in the southwest portion of Mono County, on the eastern side of the Sierra Nevada mountain range; refer to Exhibit 1, *Regional Vicinity*. The project site is located at Mammoth Creek Park West (686 Old Mammoth Road) and is comprised of Assessor's Parcel Numbers (APNs) 040-140-001-000 and 040-140-002-000. The project site is approximately 4.9 acres and is bounded by multi-family residential uses and commercial uses to the north, Old Mammoth Road to the east, recreational open space to the south, and multi-family residential uses to the west; refer to Exhibit 2, *Site Vicinity*. Vehicular access to the site is provided via Old Mammoth Road, and pedestrians/trail users can access the site via the Town Loop trail to the east and south. The primary local roadway providing access through the project site is Old Mammoth Road.

The Town's existing community center (1000 Forest Trail) and Mammoth Ice Rink (416 Sierra Park Road) are located approximately 1.38 miles to the northwest, and 0.30-mile to the northeast of the project site, respectively. The operations of the existing community center would continue. However, the winter and summer operations of the Multi-Use Facility (Mammoth Ice Rink/Mammoth RecZone) would be relocated to Mammoth Creek Park west as part of the proposed project, as described below.

Environmental Setting. The project site is comprised of Mammoth Creek Park West; refer to Exhibit 2. Mammoth Creek Park West currently includes playground equipment, grass/open space, picnic areas, trail connections, and a surface parking lot for 44 vehicles. Based on the *Town of Mammoth Lakes General Plan 2007* (General Plan) Land Use Map, the project site is designated OS (Open Space). Based on the Town's Zoning Map, the project site is zoned P-QP (Public and Quasi Public).

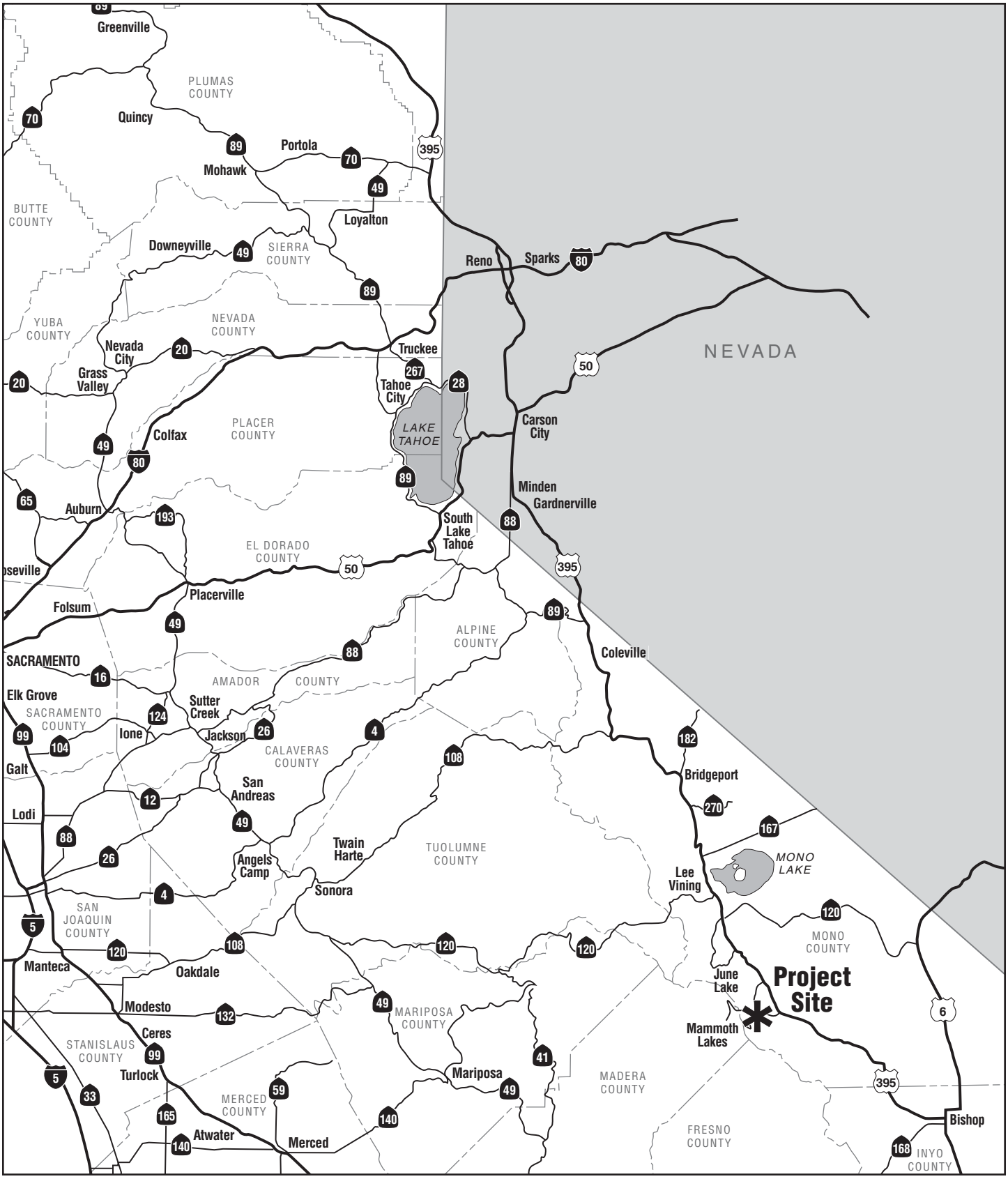
Surrounding land uses include residential, commercial, office, and open space uses, which are further described as follows:

- *North:* Commercial/office uses, including The Stove restaurant and Mammoth Dental office, and multi-family residential uses (Chateau Blanc Condominiums) are located to the north of the project site.

- *East:* Open space/recreational trail uses (Town Loop trail), Mammoth Creek, Mammoth Creek Park East, and Old Mammoth Road are located to the east of the project site.

- *South:* The southern portion of Mammoth Creek Park West [owned by the United States Forest Service (USFS) and in part under a Special Use Permit to the Town], open space/recreational trail uses (Town Loop trail), and Mammoth Creek bound the project site to the south. In addition, Old Mammoth Road is located further to the south.

- *West:* Multi-family residential uses (La Visa Blanc Condominiums) bound the project site to the west.



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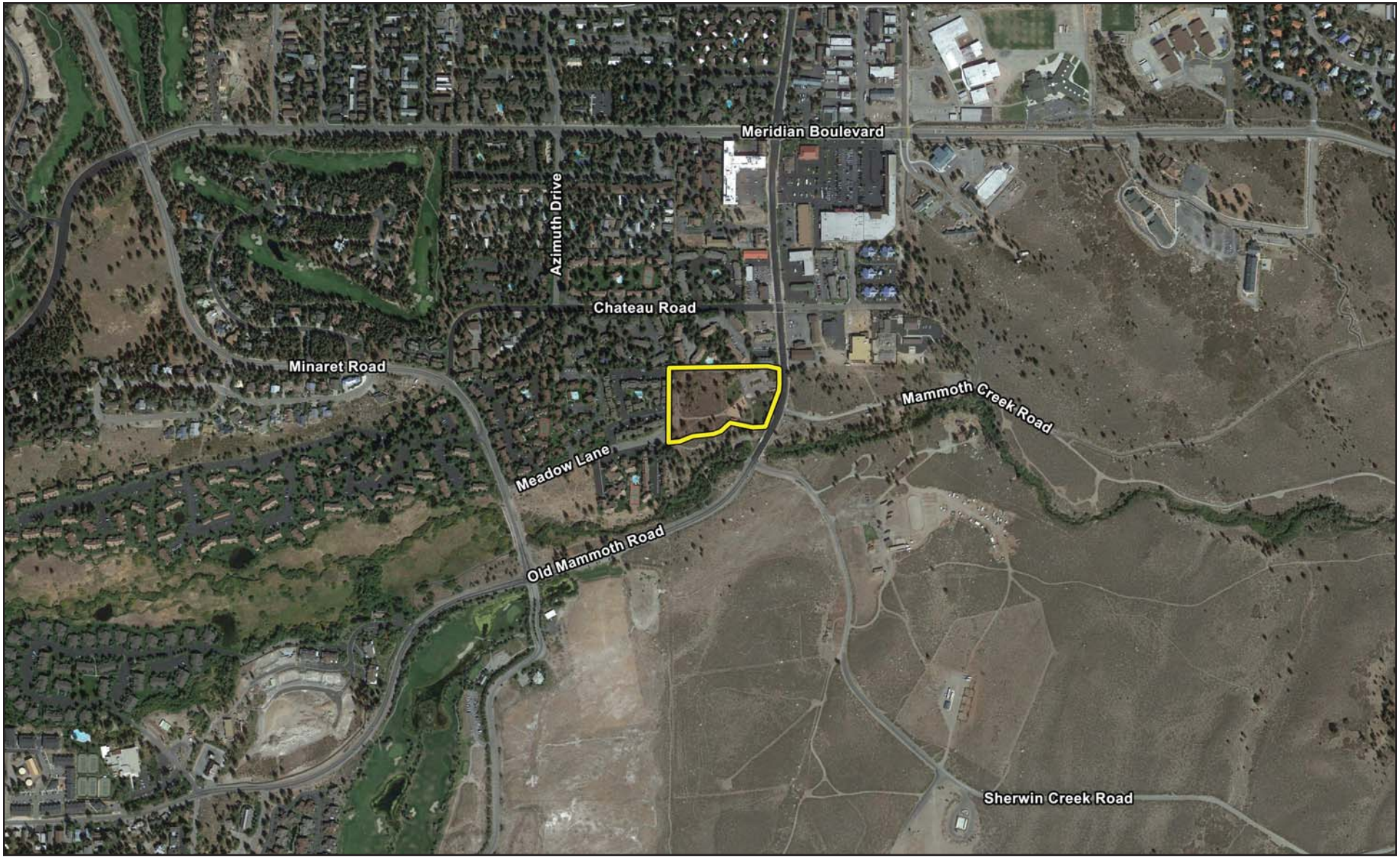
NOTICE OF PREPARATION
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Regional Vicinity

Exhibit 1



Source: Goolge Earth, 2016.
- Project Site

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NOTICE OF PREPARATION
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Site Vicinity

Exhibit 2

Background and History.

Ice Rink

The Town has been engaged in finding a permanent location for the Multi-Use Facility with a focus on the operation of an ice rink since 1998. From 1999-2004 the Town operated a seasonal ice rink at the Mammoth RV Park that was well attended; however, escalating operating costs required the Town to find another location. In 2007 the Town entered into a long-term agreement with the Mammoth Unified School District (MUSD) and the Mono County Office of Education (MCOE) to utilize two acres of land adjacent to the MUSD offices to construct and operate an ice rink. The ice rink operated from 2007 to 2010 on a temporary basis and averaged over 6,000 skaters per winter. In 2011, Measure R funds contributed to the installation of a permanent ice rink slab, and the Town has been operating the facility year-round since 2012 as an ice rink in winter and the Mammoth RecZone (inline/roller skating, skate ramps, volleyball, etc.) during the summer. The Town has determined the lease for this existing facility would not be extended past the end of 2017.

Community Center

The Town operates a year-round community center of approximately 2,500 square feet, located at 1000 Forest Trail just east of Minaret Boulevard. The facility has several deficiencies, including extensive building deterioration, on-going maintenance issues, and functional inefficiencies. Currently, this facility does not meet the current or future desire or needs of the community and would require substantial investment to upgrade the structure. While operations at the existing facility are anticipated to continue for the foreseeable future, rather than invest considerable funds to upgrade the existing facility, the Town intends to design and construct a new facility at the project site.

Ice Rink/Community Center Site Selection

Town Staff working in conjunction with representatives from Mammoth Lakes Recreation and the Recreation Commission were tasked to identify, evaluate, and recommend to Town Council appropriate sites for a Multi-Use Facility that would include a new community center and ice rink, and complementary uses. After an extensive review of available Town-owned properties/managed facilities, the following sites were considered for a new Multi-Use Facility:

- Community Center Parcel;
- Bell Shaped Parcel;
- Mammoth Creek Park West;
- Whitmore Park/Track;
- Parcel at Tavern and Sierra Park Road; and
- Civic Center Parcel.

Ultimately, the Town's ad hoc committee [i.e., the Recreation Commission, Mammoth Lakes Recreation (MLR) and members of the Ad Hoc Facility Task Force] recommended that the Multi-Use Facility be located at Mammoth Creek Park West with a complementary Community Center. It is noted that the review of potential sites did not include Shady Rest Park or Mammoth Creek Park East as the current USFS Special Use Permits under which these two sites are managed do not allow the construction of this type of permanent facility.

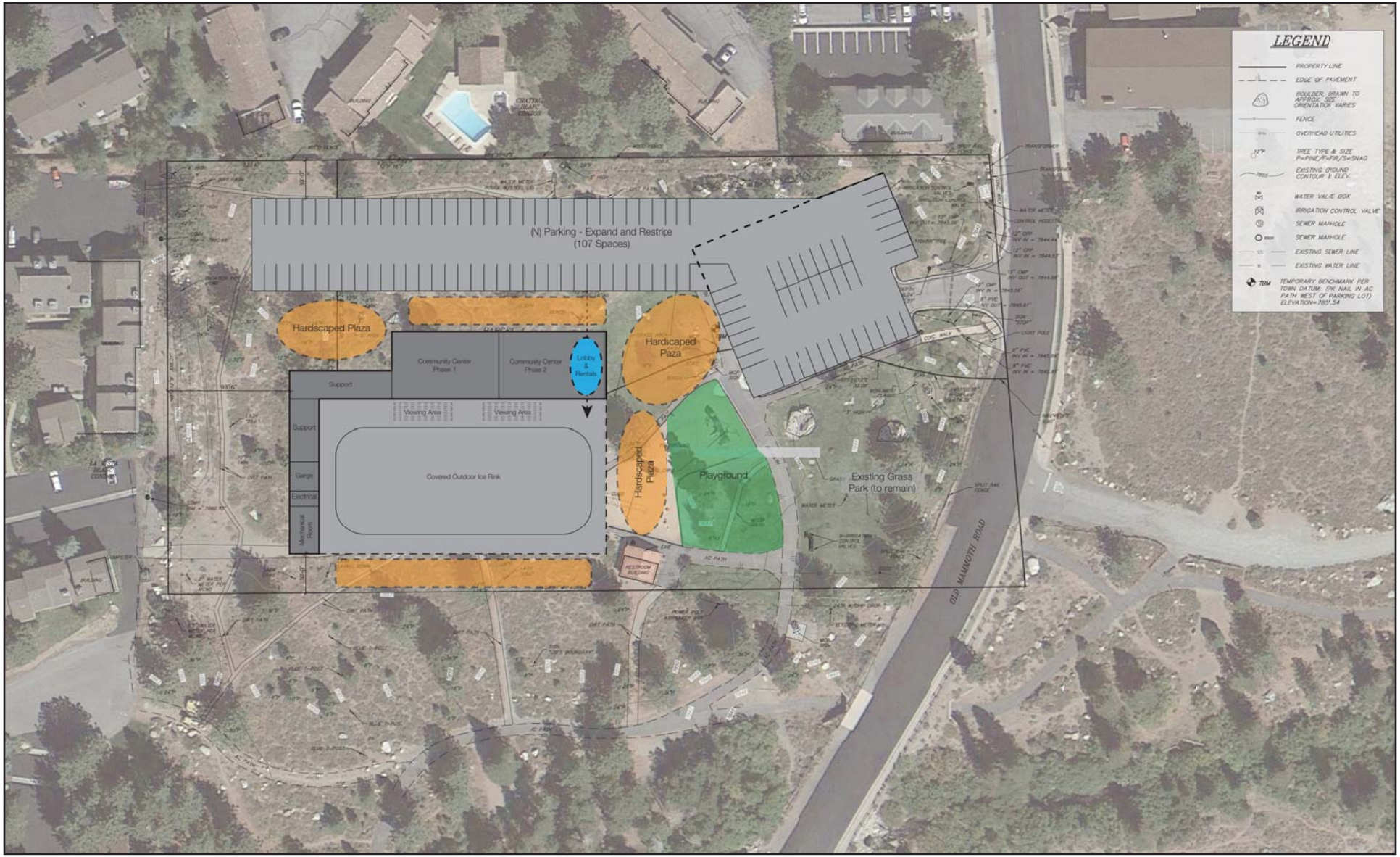
Project Design/Programming Process

On January 6, 2016, the Town Council authorized consultant services agreements related to the preliminary design and environmental documentation for the project at Mammoth Creek Park West. Preliminary tasks focused on providing the desired community benefit while considering how best to mitigate potential impacts to the environment and neighboring land uses. On January 11, the Town kicked off the site planning process with HMC Architects. HMC reviewed available information, including previous staff reports, site information, historical data and comments to date from interested parties. HMC began the development of three site plan alternatives that were posted and remain available on the Town website for this project at www.PlanMCP.com. These were made available in advance of the initial public workshop on possible site plans held on January 29, 2016. The workshop was well attended and resulted in a list of comments, questions, and ideas. Questions received and preliminary responses were subsequently posted on the dedicated project website.

Before moving forward to select and refine a preferred site plan, additional information was gathered from public comments, discussions with stakeholders and the first sessions of the programming efforts. A preferred alternative was prepared that considered all input received. A follow up public site planning workshop was held on March 18, 2016. In advance of that meeting, an updated list of questions and responses was posted along with a preferred alternative.

In parallel with the site planning/preliminary design workshops discussed above, a series of public programming workshops have also been conducted. These six formal and facilitated workshops took place from February 22 through April 12, 2016. There was also a specific hockey workshop held in March 2016 as well as a workshop with the Town/County Youth Advisory Committee (YAC). The public was also invited to participate via an online survey tool available in both English and Spanish. The collated and summarized programming information (i.e., the "Playbooks") serve to inform the final site planning and preliminary design efforts, as well as final design.

Project Description. The project consists of constructing new Community Multi-Use Facilities at the project site, encompassing a maximum 100-foot by 200-foot ice rink (winter)/recreation/event area (RecZone) covered by a roof structure of approximately 30,000 square feet, a 13,000 square-foot complementary community center, reconfiguration and improvements to an existing playground to add accessible components, restroom improvements, and 107 additional surface parking spaces; refer to Exhibit 3, *Conceptual Site Plan*. The project would also include an active outdoor recreation area to the west of the new Community Multi-Use Facilities. Upon project completion, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation. The proposed project components are described in more detail below.



Source: HMC Architects, dated March 7, 2016.

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NOTICE OF PREPARATION
MAMMOTH CREEK PARK WEST
NEW COMMUNITY MULTI-USE FACILITIES

Conceptual Site Plan

Exhibit 3

Community Center

The proposed 13,000 square-foot complementary community center would include a maximum of two large rooms (1,500 to 3,000 square feet) adjacent to the multi-use facility, a 200 to 400 square-foot warming kitchen with concession space, approximately 400 square feet of office space, a 500 to 600 square-foot arts/crafts/play room, a 300 to 400 square-foot meeting room, a 600 to 800 square-foot multi-purpose room, two to four locker rooms (approximately 400 square feet each), Americans with Disabilities Act (ADA) accessible restrooms, a 400 to 600 square-foot storage room, mechanical room (including storage, cleaning supplies, phone, electrical, internet, etc.), and 20 to 40 wall lockers.

The community center would host a number of community-based programs, events, classes, camps, meetings, community/social gatherings, and rental space for Town community members. Such activities would include, but are not limited to, adult and youth introductory fitness classes (e.g., gymnastics/tumbling, yoga), arts and crafts programs/camps, training/certification courses (e.g., first-aid training), seasonal productions (theatre/rehearsal), senior programs, holiday celebrations, fairs/festivals, rotating art gallery, community variety/talent shows, and facility rentals for small events/conferences. Community center operations would generally run between 6:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 10:00 p.m. to 12:00 a.m.

Ice Rink

The proposed ice rink would be open on two sides (to the south and east), oriented in an east-west direction, and would be up to 100-feet long by 200-feet wide. The ice rink would include space for skate rental, concessions and/or vending machines, ADA accessible restrooms, a viewing area, bleachers, and lockers for personal items. The ice rink would operate during the winter months (November to April), and would provide a number of recreational activities, including recreational skating, youth and adult hockey, as well as programs for ice skating, figure skating, and curling. The ice rink would also host community events, hockey tournaments, private/special events, and professional/club/college/school rentals and events. Ice rink operations would generally run between 9:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 6:00 a.m. to 9:00 a.m. or 10:00 p.m. to 12:00 a.m.

Mammoth Recreation Zone

In the summer months (mid-May to mid-October) the multi-use facility would operate as the summer Mammoth RecZone. The Mammoth RecZone would be the home of Parks and Recreation Department summer camps and programs. The facility would also offer youth, adult and senior court sports (drop-in and league play), a climbing wall, professional/club/college/school rental space, community gathering space, and would be home to community and special events. Activities could include youth and adult recreational basketball, badminton, pickleball, cricket, handball, small-sided soccer (futsal), volleyball, street hockey, dodgeball, kickball, adaptive sports (wheelchair basketball, pickleball, etc.), summer sports camps (basketball, volleyball, soccer), roller/inline skating, farmers market, festivals, holiday events, and special events such as weddings, trade shows, birthday parties, etc. Auxiliary equipment such as sport court flooring, wind screens, scoreboards, athletic equipment, tables, chairs, etc., would be required to operate the Mammoth RecZone. Mammoth RecZone operations would generally run between 6:00 a.m. and 10:00 p.m., Monday through Sunday, with occasional use from 10:00 p.m. to 12:00 a.m. The open area south of the Mammoth RecZone may also be used occasionally for access and seating for events.

Park Playground

The square footage of the existing playground on the project site would remain the same. However, some elements of the existing playground may be moved or new "inclusive" features may be added. In addition, the existing bathroom at the Mammoth Creek Park West would be updated for year round use and to comply with ADA standards. The existing rock garden in the southeast portion of the project site would remain unchanged.

Active Outdoor Recreation Area

The area to the west of the proposed Community Multi-Use Facility would be used as an active outdoor recreation area. Possible activities for this portion of the project site include a dog park, a BMX bicycle dirt track (during summer months), sledding hill (during winter months), and/or a community garden.

Parking

The existing surface parking lot in the northeast portion of the project site would be expanded westward across the northern portion of the project site, and would provide 107 additional parking spaces (a total of 151 parking spaces).

Construction Phasing

Construction of the proposed project would be phased and is anticipated to begin in June 2017 and conclude in June 2022.

Required Approvals

The project would require the following project approvals:

- Environmental Review
  - Certification of the Environmental Impact Report

- Discretionary Permits
  - Use Permit
  - Major Design Review
    - Site Plan Review
    - Architectural Review

- Ministerial Permits
  - Grading Permit
  - Building Permit

Environmental Analysis. Due to the decision to prepare an EIR, an Initial Study was not prepared. This option is permitted under *CEQA Guidelines* Section 15063(a), which states that if the Lead Agency determines an EIR will be required for a project, the Lead Agency may skip further initial review and begin work on the EIR. The Draft EIR will focus on the following environmental issues:

- Aesthetics;
- Agriculture and Forest Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Mineral Resources;
- Noise;
- Population and Housing;
- Public Services;
- Recreation;
- Transportation/Traffic; and
- Utilities and Service Systems.

The EIR will particularly focus on the following topical areas:

- *Aesthetics*. The proposed project could result in visual impacts due to potential public view blockage/effects from the proposed Community Multi-Use Facility building, as well as the change in character/quality of the project area. Other impacts that could result include introduced lighting from both interior and exterior lighting sources as well as increased vehicle headlights entering and exiting the project site.

- *Agriculture and Forest Resources*. As the project area is not designated for agricultural production, impacts in this regard are not anticipated. The project site is located within an area known for its forestland, and the adjoining parcel to the south is owned by the USFS. However, the project site is not zoned or used for forestland resource production. The Draft EIR will confirm that the project would not create impacts related to agriculture and forest resources.

- *Air Quality*. The project may result in air quality impacts due to temporary construction-related emissions, as well as long-term air emissions from project operations associated with daily automobile traffic and energy consumption. Short-term construction air quality impacts that may occur include dust generation, construction vehicle emissions, and possible odors. Future development within the project area may result in long-term air quality impacts within the Great Basin Valleys Air Basin (GBVAB). These issues will be addressed in the Draft EIR, including project consistency with regional air quality planning programs.

- *Biological Resources*. Given the undeveloped nature of the project site and proximity to Mammoth Creek, biological impacts to sensitive species or habitat could occur at the project site. The Draft EIR will include a Habitat Assessment/Field Investigation to document baseline conditions from which to evaluate the sites potential to support special-status species, sensitive habitat types, or jurisdictional drainages. The Habitat Assessment/Field Investigation will be used in the Draft EIR to analyze impacts to biological resources as a result of the proposed project.

- *Cultural Resources*. Culturally significant resources are known to exist in the project area. As such, the potential exists for future construction activities at the planning site to encounter known or unknown prehistoric and historic resources. As part of the Draft EIR, a Cultural Resources Technical Report will be prepared. The Cultural Resources Technical Report will supplement the Draft EIR analysis of impacts on cultural resources and address potential cultural and historic resource impacts as a result of the proposed project in the Draft EIR.

- *Geology and Soils*. The Town and surrounding area is situated within a seismically active region, capable of producing surface rupture, ground motion, liquefaction, or soil settlement of sufficient magnitude to damage buildings or structures during an earthquake. The Draft EIR will utilize the *Town of Mammoth Lakes 2005 General Plan Update Final Program Environmental Impact Report* (General Plan EIR), or any updates thereto, to evaluate seismicity of the local area, presence of existing fault lines and effect on development, the potential for erosion of site soils, soil stability, and expansive characteristics of project area soils.

- *Greenhouse Gas Emissions*. Development at the project site could increase greenhouse gas emissions both during construction and operations of the proposed Community Multi-Use Facility. The Draft EIR will analyze short-term construction activities and long-term operations, buildings, and transportation as these activities pertain to greenhouse gas emissions.

- *Hazards and Hazardous Materials*. Operations at the project site may involve limited amounts of hazardous materials such as cleaning and degreasing solvents, fertilizers, pesticides, and other materials used in the regular maintenance of buildings and landscaping. The Draft EIR will address the potential that a significant hazard to the public may be created through the transport, use, or disposal of hazard materials, as well as the potential for reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment. The Draft EIR will identify whether or not the project would emit hazardous materials and/or interfere with any emergency response plans. Potential impacts to nearby residents and schools, if applicable, will also be evaluated.

- *Hydrology and Water Quality*. According to flood hazard maps published by the Federal Emergency Management Agency, portions of the project site are located within Special Flood Hazard Areas (SFHAs). As part of the Draft EIR, Hydrology/Water Quality Analysis will be conducted. The Draft EIR will address the potential that project implementation could place future development and within SFHAs that would impede or redirect flood flows. The project could generate pollutants typical of urban development, which may adversely impact receiving waters. The Draft EIR will analyze short-term temporary construction-related effects on hydrology and water quality; long-term project-related water quality; permanent changes to stormwater drainage and/or flooding; project-related impacts to groundwater quantity and quality; and off-site hydrology and water quality impacts.

- *Land Use and Planning*. The project is not anticipated to require a General Plan Amendment or Zone Change. The proposed project will be evaluated in regards to consistency with the existing policies and standards of the General Plan, *Mammoth Lakes Municipal Code* (Municipal Code), and *Town of Mammoth Lakes Parks and Recreation Master Plan* (Parks and Recreation Master Plan). The project's potential adverse impacts to adjacent land uses would also be evaluated through an analysis of short-term construction activities and long-term operations.

- *Mineral Resources*. According to the Town's General Plan EIR, no known mineral resources are known to occur in the project area. The Draft EIR will confirm that there is no effect on the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

- *Noise*. Development at the project site may result in short-term construction noise and long-term changes in noise levels in the area due to traffic volume changes along area roadways and on-site project operations. The Draft EIR will describe these potential construction and operational noise impacts and will compare these impacts to applicable noise thresholds. The Draft EIR will evaluate these potential noise-related issues as well as address the noise/land use compatibility of the proposed project with existing and future expected noise levels.

- *Population and Housing*. The Draft EIR will present existing population, housing, and employment figures for the project site and the projected changes in these variables as a result of project implementation. The population analysis will compare the amount and type of growth anticipated under the proposed project with estimates from the General Plan, the U.S. Census Bureau, the California Department of Finance, and other adopted planning documents.

- *Public Services*. Potentially affected agencies such as fire and law enforcement protection will be contacted to confirm relevant existing conditions, project impacts, and recommended mitigation measures. The discussion will focus on the potential alteration of existing facilities, extension, or expansion of new facilities, and the increased demand on services based on the proposed land uses. The Draft EIR will evaluate the ability of the project to receive adequate service based on applicable Town standards and, where adequate services are not available, will identify the effects of inadequate service, and recommended mitigation measures if necessary.

- *Recreation*. The Draft EIR will analyze the potential for increased use of or substantial degradation of existing local and regional parks. The Draft EIR will also evaluate potential impacts on construction or expansion of recreational facilities based on the proposed land uses.

- *Transportation/Traffic*. Potential impacts associated with construction-related traffic, project-related operational traffic on local and regional transportation facilities, internal circulation, and emergency access of the project may occur. Development of the proposed project could include on-site and off-site circulation improvements, which may affect access, and/or traffic volumes. As such, a Transportation Impact Memorandum will be conducted. The Draft EIR will summarize the results of the Transportation Impact Memorandum addressing these issues and will analyze effects on public transit, as well as public transit needs and alternative modes of transportation.

- *Utilities and Service Systems*. Potentially affected agencies such as water service, wastewater treatment, and solid waste providers will be contacted to confirm relevant existing conditions, project impacts, and recommended mitigation measures. The discussion will focus on the potential development requiring the construction of new facilities, expansion of existing facilities, and the increased demand on services based on the proposed land uses. The Draft EIR will evaluate the ability of the project to receive adequate service based on applicable Town standards and, where adequate services are not available, will identify the effects of inadequate service, and recommended mitigation measures.

- *Cumulative Impacts*. Consistent with Section 15130 of the CEQA Guidelines, the Draft EIR will discuss cumulative impacts of the proposed project, addressing each topic covered in the environmental analysis.

- *Effects Not Found to be Significant*. This section will discuss those environmental issues found not to have an impact as a result of the proposed project.

- *Significant and Unavoidable Environmental Effects*. This section will describe any significant and unavoidable impacts on the environment that cannot be avoided or reduced to a less than significant level with the application of mitigation measures.

- *Growth Inducing Effects*. As a required discussion according to CEQA Section 15126.2(d), the Draft EIR will include a discussion of growth inducing effects. The anticipated growth conditions in the project area and parameters for consideration of any secondary impacts from growth will be discussed. The section will evaluate the potential for the proposed project to generate additional growth in the area using standard growth analysis criteria, such as the project's potential to foster economic or population growth or its potential to remove obstacles to population growth through extension of infrastructure.

- *Project Alternatives*. Under CEQA, environmental documentation must include an analysis of a reasonable range of alternatives to the project, including the "No Project" alternative. Each alternative will be contrasted with the proposed project in terms of the extent to which project's objectives are met and a reduction in adverse impacts is achieved. The environmentally superior alternative will be identified.

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State of California - Natural Resources Agency
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CHARLTON H. BONHAM, Director

June 29, 2016

Ms. Sandra Moberly
Community and Economic Development Manager
Town of Mammoth Lakes
437 Old Mammoth Road, Suite R
Mammoth Lakes, CA 93546

Subject: Notice of Preparation of a Draft Environmental Impact Report
Mammoth Creek Park West New Community Multi-Use Facilities Project
State Clearinghouse No. 2016062009

Dear Ms. Moberly:

The California Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Mammoth Creek Park West New Community Multi-Use Facilities Project (project) [State Clearinghouse No. 2016062009]. The Department is responding to the NOP as a Trustee Agency for fish and wildlife resources (California Fish & G. Code, §§ 711.7 & 1802, and the California Environmental Quality Act [CEQA] Guidelines, § 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines, § 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish & G. Code, § 1600 *et seq.*) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish & G. Code, §§ 2080 & 2080.1).

The project is located at Mammoth Creek Park West and is approximately 4.9 acres. It is bounded by multi-family residential uses and commercial uses to the north, Old Mammoth Road to the east, recreational open space to the south, and multi-family residential uses to the west. The project consists of constructing new Community Multi-Use Facilities at the project site, encompassing a maximum 100-foot by 200-foot ice rink/recreation area; a 13,000 square-foot complementary community center; reconfiguration and improvements to an existing playground; and 107 additional surface parking spaces. The project would also include an active outdoor recreation area to the west of the new Community Multi-Use Facilities.

COMMENTS AND RECOMMENDATIONS

The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (i.e., biological resources). The Department offers the comments and recommendations presented below to assist the Town of Mammoth Lakes (the Town; the CEQA lead agency) in adequately identifying and/or mitigating the project's significant, or

potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable the Department to adequately review and comment on the proposed project with respect to impacts on biological resources. The Department recommends that the forthcoming DEIR address the following as applicable to the project:

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable Department staff to adequately review and comment on the project, the DEIR should include a complete assessment of the flora and fauna within and adjacent to the project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. The Department recommends that the DEIR specifically include:

1. An assessment of the various habitat types located within the project footprint, and a map that identifies the location of each habitat type. The Department recommends that floristic, alliance- and/or association based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions;

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project. The Department's California Natural Diversity Database (CNDDB) in Sacramento should be contacted at (916) 322-2493 or http://www.dfg.ca.gov/biogeodata/cnddb/ to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed project. The Department recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at: http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp

   Please note that the Department's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. The Department recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish & G. Code, § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines, § 15380). The inventory should address seasonal variations in use of the project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist

and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service, where necessary. Note that the Department generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed project may warrant periodic updated surveys for certain sensitive taxa, particularly if the project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following the Department's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see https://www.wildlife.ca.gov/Conservation/Plants);

5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines, § 15125[c]);

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the project. To ensure that project impacts to biological resources are fully analyzed, the following information should be included in the DEIR:

1. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by zoning of development projects or other project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address project-related changes on drainage patterns and water quality within, upstream, and downstream of the project site, including: volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site.

2. A discussion of potential indirect project impacts on biological resources, including resources in areas adjacent to the project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Natural Community Conservation Plan, or other conserved lands).

3. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. Please include all potential direct and indirect project related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on

similar plant communities and wildlife habitats.

Mitigation Measures for Project Impacts to Biological Resources

The DEIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the construction and long-term operation and maintenance of the project. When proposing measures to avoid, minimize, or mitigate impacts, the Department recommends consideration of the following:

1. *Sensitive Plant Communities*: The Department considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.

2. *Species of Special Concern* (SSC) status applies to animals generally not listed under the federal Endangered Species Act or the California Endangered Species Act, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. SSCs should be considered during the environmental review process.

3. *Mitigation*: The Department considers adverse project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DEIR should include mitigation measures for adverse project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

   The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

4. *Nesting Birds and Migratory Bird Treaty Act:* Please note that it is the project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game

Code (FGC) also afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

The Department recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the project site. If pre-construction surveys are proposed in the DEIR, the Department recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

Lake and Streambed Alteration Program

Any project that may substantially alter a lake or streambed will require notification to the Department per Fish and Game Code section 1602. Fish and Game Code section 1602 requires an entity (as defined in Fish and Game Code section 1601(d)) to notify the Department prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit or dispose of debris or waste where it may pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year round). This includes ephemeral streams, desert washes, watercourses with a subsurface flow, and hydraulically connected floodplains of a body of water.

Upon receipt of a complete notification, the Department determines if the proposed project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake or Streambed Alteration Agreement is required. A Lake or Streambed Agreement includes measures necessary to protect existing fish and wildlife resources. The Department may suggest ways to modify your project that would eliminate or reduce harmful impacts to fish and wildlife resources.

The Department's issuance of a Lake or Streambed Agreement constitutes a "project", and is subject to CEQA (Pub. Resources Code §21065); the Department is thus bound by its role as a Responsible Agency to independently evaluate and approve the Environmental Document prepared by the Lead Agency, pursuant to California Code of Regulations

section15096 (f). To facilitate issuance of a Lake or Streambed Agreement, the DEIR should fully identify the potential impacts to all lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the Department is recommended to ensure timely preparation and execution of a Lake or Streambed Alteration agreement, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to https://www.wildlife.ca.gov/Conservation/LSA/Forms.

Further Coordination

The Department appreciates the opportunity to comment on the NOP of a DEIR for the Mammoth Creek Park West New Community Multi-Use Facilities Project (SCH No. 2016062009) and recommends that the Town address the Department's comments and concerns in the forthcoming DEIR.

If you should have any questions pertaining to the comments provided in this letter, please contact Rose Banks at (760) 873-4412 or at Rose.Banks@wildlife.ca.gov.

Sincerely,

Heidi Calvert

for Leslie MacNair
Regional Manager

Literature Cited

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

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June 7, 2016

Sandra Moberly
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sent via e-mail:
smoberly@townofmammothlakes.ca.gov

RE: SCH# 2016062009 Mammoth Creek Park West New Community Multi-Use Facilities Project, Environmental Impact Report, Mono County, California

Dear Ms. Moberly:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
    d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
    a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
    a. Alternatives to the project.
    b. Recommended mitigation measures.
    c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
    a. Type of environmental review necessary.
    b. Significance of the tribal cultural resources.
    c. Significance of the project's impacts on tribal cultural resources.
    d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
    a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
    b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
   i. Protecting the cultural character and integrity of the resource.
   ii. Protecting the traditional use of the resource.
   iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
   - **a.** If part or all of the APE has been previously surveyed for cultural resources.
   - **b.** If any known cultural resources have been already been recorded on or adjacent to the APE.
   - **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
   - **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
   - **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
   - **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   - **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   - **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   - **a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   - **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   - **c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

Bogue, Kristen

From: Sandra Moberly <smoberly@townofmammothlakes.ca.gov>
Sent: Friday, July 01, 2016 8:44 AM
To: Torres, Eddie; Bogue, Kristen
Cc: Stuart Brown; Grady Dutton
Subject: FW: Comments: Scope of EIR for MUF at Mammoth Creek Park West

FYI

From: Lesley B [mailto:lestravel@hotmail.com]
Sent: Thursday, June 30, 2016 10:07 PM
To: Sandra Moberly
Subject: Comments: Scope of EIR for MUF at Mammoth Creek Park West

smoberly@townofmammothlakes.ca.gov

Dear Ms. Moberly,

As someone who has called Mammoth Lakes home for nearly twenty years, and as one who treasures our natural environment (along with most other residents and visitors), I urge our town government to use the utmost care in preparing EIR documents for the Multi-Use Facility at Mammoth Creek Park West.

Of primary importance is retaining the viability of the riparian corridor along Mammoth Creek. This section of creek is home to a variety of birds and mammals and is a stop for migrant birds. Removal of natural vegetation - including significant stands of Jeffrey Pines - will degrade this habitat and needs to be accurately documented in the EIR.

Ice rink operations carry a risk of leaking contaminants which could further endanger local wildlife. This should be addressed by the EIR along with possible impacts to groundwater.

The large parking lot will encourage vehicular travel and is inconsistent with town's plan to encourage a "feet first" community. Added car trips will increase pollutants.

Noise and light pollution will cause a significant impact, especially if the MUF is developed as an open air structure. It's vital that the EIR looks at these issues carefully and notes the degradation of quality of life to nearby residents resulting from added noise and glare. Also, we should be following our town's "dark skies" guidelines.

It is my hope that the EIR document will present a fair assessment of the environmental consequences of siting an industrial-style facility in a relatively natural area. It is my fear that the document will minimize environmental impacts in order to expedite development.

Sincerely,
Lesley Bruns
818 424-5552 (lesleybruns@outlook.com)

P.S. I can't resist sharing this link which details numerous failed ice rink projects and notes some undesirable environmental consequences: http://iceskatingresources.org/ClosedOrFailingIceRinks.html

Virus-free

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CATHERINE C. ENGBERG
Attorney
engberg@smwlaw.com

October 21, 2015

Mayor Michael Raimondo
Mammoth Lakes Town Council
Town of Mammoth Lakes
P.O. Box 1609
Mammoth Lakes, CA 93546

Re: Comments on Agenda Item 11—Proposed Community Multi-Use Recreation Facility at Mammoth Creek Park West

Dear Mayor Raimondo and Members of the Town Council:

On behalf of our clients, La Vista Blanc Homeowners' Association, Mammoth Creek Homeowners' Association, Sunrise Homeowners' Association, and Chateau Blanc Homeowners' Association ("the Homeowners' Associations"), we are writing to provide comments on the proposed relocation of the Mammoth Ice Rink from its current location on Mammoth Unified School District property to a Community Multi-Use Recreation Facility at Mammoth Creek Park West ("the Facility").

The Mammoth Creek Park West site poses severe and likely insurmountable development challenges. While the Town has not released a detailed project description, it appears that the Facility would replace a five acre park, currently used as open space, with a full-sized hockey and ice skating rink and mixed summer uses, and would also include a 10,000 square foot community center and a concessions trailer that could sell alcohol. The co-location of these facilities is meant to reduce costs for the Town, but crowding in so many different uses on such a small site will concentrate negative impacts on the surrounding residential community and those who enjoy Mammoth Creek Park for its current recreational amenities. The proposed relocation will bring permanent changes to the surrounding residential community, a beloved and well-used park, riparian habitat within Mammoth Creek Park, and Mammoth Lakes as a whole. The Town must therefore carefully analyze the impacts of the Facility and ensure rigorous public involvement in the decision-making process.

In light of the Facility's significant environmental impacts, we concur with staff's recommendation that an "Environmental Impact Report be considered as the

appropriate environmental review document for this project." October 21, 2015 Staff Report at 3. The Homeowners' Associations are particularly concerned with the Facility's impacts to noise levels, parking and traffic, light and aesthetics, land use compatibility, air and water quality, and public safety. Because "it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact[s]," if the Town decides to move forward with the Facility, compliance with the California Environmental Quality Act ("CEQA") will require the completion of an Environmental Impact Report ("EIR"), including thorough analysis of alternative sites. *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75. CEQA prohibits the Town from approving the Facility if the project's significant environmental effects could be substantially lessened through use of a project alternative that accomplishes the project's goals or through feasible mitigation. Pub. Res. Code §§ 21000 *et seq.*; CEQA Guidelines, Cal. Code Regs., tit. 14, §§ 15000, *et seq.*; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 731.

The Homeowners' Associations urge the Town to take this opportunity to either abandon Mammoth Creek Park West as the preferred project location and/or to prepare an EIR that thoroughly analyzes potential impacts of the Facility and project alternatives, including those described below.

I. The Facility Will Result in Significant Noise Impacts.

The project must fully comply with noise control requirements of CEQA, the Mammoth Lakes General Plan, and the Noise Ordinance of the Mammoth Lakes Municipal Code. CEQA requires lead agencies, such as the Town, to "[t]ake all action necessary to provide the people…with freedom from excessive noise," and the defines the potential to "increase substantially the ambient noise levels for adjoining areas" to be a significant environmental effect. *Lewis v. Seventeenth Dist. Agricultural Assn.* (1985) 165 Cal.App.3d 823, 829 fn. 7 (quoting CEQA Guidelines Appendix G); Pub. Res. Code § 21001(b). Residential developments like those surrounding the proposed project site are identified in the Mammoth Lakes General Plan as a noise-sensitive use, and the Noise Ordinance sets detailed standards for acceptable decibel levels in residential zones at different times throughout the day. Mammoth Lakes General Plan, Noise Element § 1.1; Mammoth Lakes Municipal Code §§ 8.16.010 *et seq.*). As a part of environmental review, the Town should analyze all of the noise producing elements discussed below individually and cumulatively for their compatibility with both the daytime and nighttime noise thresholds of the Noise Ordinance. Pub. Res. Code § 21083(b)(2) (requiring identification of significant cumulative impacts).

If the Facility is placed at Mammoth Creek Park West, removal of snow from the ice rink, ice resurfacing machines, and ice cooling units will contribute substantial ambient daytime noise to the adjacent quiet residential community. Noise impacts would be heightened during hockey game times through crowd noise, public address system announcements, increased traffic, and game play noises like referee whistles and hockey pucks hitting dasher boards. Game noise would be particularly detrimental to the peace of the surrounding residential community if night games are allowed at the Facility. Even without scheduled nighttime games, however, noise impacts could run around the clock if the ice cooling units run at all hours, maintenance such as snow removal and resurfacing occurs afterhours, or if the site is not well-patrolled for illicit afterhours use. Additionally, grading and construction will also create temporary noise impacts that will be a nuisance to surrounding residents and recreational users of the park.

II. The Facility Will Result in Significant Parking and Traffic Impacts.

Currently, Mammoth Creek Park West is served by a lot with only 44 parking spaces. Town of Mammoth Lakes, Conceptual Site Plan: Mammoth Creek Park West, http://www.ci.mammoth-lakes.ca.us/DocumentCenter/View/5299. Forty-four spaces will most certainly be insufficient for a development of this scale. Adverse impacts to parking are a significant effect on the environment for CEQA purposes. See *Taxpayers for Accountable School Bond Spending v. San Diego Unified School District* (2013) 215 Cal.App.4th 1013, 1050, *reh'g denied (Apr. 25, 2013), review denied (July 31, 2013)* (invalidating school district's mitigated negative declaration of proposed field lighting at football stadium based on fair argument that significant parking impacts would occur). A failure to provide additional parking for Facility users will lead to parking overflow into adjacent private lots that will burden area residents, and effective enforcement against illegal parkers would take up valuable police resources. Minimizing parking impacts through converting more undeveloped land into parking, however, will in turn increase open space loss.

Old Mammoth Road provides the only vehicular access to Mammoth Creek Park. Significant, unmitigated impacts to traffic requires preparation of an EIR. *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 342. The additional trips the project will generate on this two-lane roadway will create congestion that could reduce access to local businesses and residences during peak use times. Congestion at the bend in Old Mammoth Road approaching the park could create dangerous roadway conditions, as visibility is limited there.

III. The Facility Will Result in Significant Light and Aesthetic Impacts.

The Facility will introduce new light sources into the project area that will produce glare and spill lighting on the surrounding residential area. Particularly if the design includes sports lighting typical of major recreational facilities, light intensity from the Facility could exceed levels permitted under the Town's Exterior Lighting Ordinance. Mammoth Lakes Municipal Code § 17.36.030 (requiring that "[o]utdoor lighting installations shall be designed to avoid harsh contrasts in lighting levels between the project site and the adjacent properties" and prohibiting the installation of lights that cause glare or spillover onto neighboring properties). Unless effectively mitigated, light impacts from the project will contribute to a loss of night sky observation and will interfere with sleep and health of nearby residents. Substantial adverse effects on human beings, such as negative health impacts, are significant environmental effects for the purposes of CEQA. Pub. Res. Code § 21083(b)(3).

Furthermore, the addition of Facility buildings to the site will detrimentally modify views from neighboring residential properties and from within the park. "[A]esthetic issues, such as public and private views, are properly studied in an EIR to assess the impacts of a project." *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 492, *as modified (July 13, 2004)*. CEQA requires review of the Facility's impact on residents who will lose their views of Mammoth Lakes' dramatic mountain vistas. Even with careful design review, such aesthetic impacts will be very difficult to mitigate, whereas the selection of an alternative project site that is not adjacent to residential development would avoid these impacts altogether.

IV. The Facility Will Cause Significant Impacts Related to Land Use Compatibility.

The Facility's proposed intensive and dense use of the site must be analyzed for consistency with current land uses both on the park itself and in the surrounding area.

Currently, Mammoth Creek Park is heavily used for recreation purposes, including fishing in the stream, dog walking, and creek access. Parents and their young children who frequent the park's playground make up a particularly large segment of users. Diverse recreational uses that are desirable in their own right are not necessarily compatible in a shared site. The transformation of Mammoth Creek Park into a multi-use sports facility and community center will entail the removal of vegetation, grading, and changes in land use that will lead to permanent loss of a beloved open space for community residents, and will result in a space ill-suited for its present passive

recreational uses. The segments of the populace served will also shift. A boisterous hockey rink can be expected to primarily benefit adults and teens, forcing out young families and senior citizens who enjoy the park's quiet, safe, and contemplative atmosphere.

The Mammoth Lakes General Plan includes a goal to "[p]reserve and enhance the exceptional natural, scenic and recreational value of Mammoth Creek," and policies to "protect stream-bank vegetation" and "[m]anage all properties held by the Town of Mammoth Lakes along the Mammoth Creek corridor for open space, habitat preservation and passive recreation." Mammoth Lakes General Plan, Resource Management and Conservation Element, R. 3-3.B. The Facility's necessary destruction of open space along the Mammoth Creek corridor is directly inconsistent with these provisions of the General Plan.

Use of Mammoth Creek Park West to develop a crowded multi-use facility is also incompatible with the surrounding use, which is overwhelming residential. There are a number of condo developments to the south, west, and north of the park. Community residents depend on Mammoth Creek Park as a place for peaceful recreation. As the diversity of possible impacts discussed herein attests to, residents can expect the incompatibility of existing uses and the Facility's uses to be highly disruptive to their community.

V. The Facility Will Cause Significant Air and Water Quality Impacts.

Environmental review must analyze the risk of pollution from the Facility's construction, use, and maintenance impacting to air quality, water quality, and biological resources in the park's creekside riparian habitat.

The Facility poses a risk of doing irreparable harm to Mammoth Creek, an invaluable natural resource. Construction runoff, vehicle fuel, and chemicals used by ice-chilling devices could pollute and permanently degrade the creek and groundwater resources. Given the importance of the creek as a biological resource, analysis of plans for stormwater collection and treatment, soil erosion control, and spill cleanup for fuel used on-site are all of heightened importance in the environmental review process.

Environmental review must also analyze the potential for increased traffic, idling of vehicles, and use of gasoline-fueled ice resurfacing machines or ice chillers to degrade air quality below requirements set in the Mammoth Lakes Air Quality Management Plan. (Air Quality Management Plan for the Town of Mammoth Lakes, Nov. 30, 1990).

VI. The Facility Will Result in Significant Public Safety Impacts.

Public safety risks created by the Facility could put new demands on police and fire services. Possible impacts of the Facility that require review include afterhours vandalism and increases in crime in the area if alcohol is available through the concessionaire. The sale of alcohol on-site would also exacerbate traffic safety hazards created by congestion at the blind bend in Old Mammoth Road. Insufficient mitigation for pedestrian safety could particularly threaten young children and elderly persons accessing the park and Facility on foot.

VII. The EIR Must Contain a Robust Alternatives Analysis.

Finally, as a part of the EIR, the Town will need to conduct thorough evaluation of alternative locations and designs for the Facility. An EIR must describe a range of alternatives to the proposed project, and to its location, that would feasibly attain the project's basic objectives while avoiding or substantially lessening the project's significant impacts. Pub. Res. Code § 21100(b)(4); CEQA Guidelines § 15126.6(a). A proper analysis of alternatives is essential for the Town to comply with CEQA's mandate that significant environmental damage be avoided or substantially lessened where feasible. Pub. Res. Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126.6(a). The Town has already acknowledged that it considers the Mammoth Creek Park East alternative "to have less direct impact on any residential areas." Town of Mammoth Lakes, Proposed Ice Rink Relocation Project, http://www.ci.mammoth-lakes.ca.us/index.aspx?NID=659. In addition to analysis of the Mammoth Park East alternative, the EIR should analyze a no-relocation alternative, other Town-owned sites (such as Community Center Park, Bell Shaped Parcel, Trails End Park, and Whitmore Park Complex), and a less intensive design option in order to identify the project alternative that will best achieve project goals while minimizing environmental impacts.

Mammoth Creek Park West is not the only viable project site, and it appears several of the alternative sites would result in reduced impacts. Mammoth Lakes Multi-Use Facility, Task Force Due Diligence Progress, September 4, 2015, at 1-3. For example, Trails End Park is rejected because of likely interference with some existing amenities. However, the Trails End Park site would likely result in less inference with existing recreation opportunities; The area includes only minimal residential development that would be impacted by light, noise, and traffic from the project, there is no sensitive creek habitat, and the site already includes a skate park, creating an excellent opportunity for co-location of compatible uses. The Town must also seriously reconsider the no-relocation alternative in light of public comments and analysis of likely impacts discussed herein. The no-relocation alternative would have no effect on residential areas and would

keep the ice rink where it makes the most sense—near the middle school, high school, and community college. While the Town claims that the lease costs over twenty years would be similar to the cost of relocation, this analysis likely fails to take into account the high risk of cost overruns for this sort of project, or the cost of necessary environmental remediation at the current site. July 10, 2015 Staff Report at 3.

VIII. Conclusion

We respectfully request that the Town consider all of the above mentioned issues before committing to a preferred project location and commencing the EIR process. This information is required to provide the basis for a comprehensive analysis of environmental impacts and the identification of feasible mitigation measures and project alternatives.

We appreciate the opportunity to provide these comments. Please keep us informed of all notices, hearings, staff reports, briefings, meetings, and other events related to the Facility.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Catherine C. Engberg

cc: Andrew Morris, Town Attorney
Stuart Brown, Recreation Manager

718233.2

11.2 Habitat Assessment

Michael Baker
INTERNATIONAL

Innovation Done Right...We Make a Difference

August 2, 2016 JN: 151373

TOWN OF MAMMOTH LAKES
P.O. Box 1609
Mammoth Lakes, California 93546

SUBJECT: Habitat Assessment for the Mammoth Creek Park West New Community Multi-Use Facilities Project

Introduction

Michael Baker International (Michael Baker), conducted a habitat assessment for the Mammoth Creek Park West New Community Multi-Use Facilities Project (project) located at Mammoth Creek Park West (686 Old Mammoth Road), Town of Mammoth Lakes (Town), Mono County, California. Michael Baker biologist, Travis J. McGill, inventoried and evaluated the condition of the habitat on the proposed project site on June 8, 2016.

The habitat assessment was conducted to characterize existing site conditions and to assess the probability of occurrence of special-status[1] plant and wildlife species that could pose a constraint to development of the proposed project. Special attention was given to special-status species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base (CNDDB) and the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California as potentially occurring in the vicinity of the project site.

Project Location

The project site is generally located west of U.S. Route 395, south of State Route 203 on the eastern foothills of the Sierra Nevada mounting range within the Town of Mammoth Lakes, in the southwest portion of Mono County, California. The project site is depicted on the Old Mammoth quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series

1 As used in this report, "special-status" refers to plant and animal species that are federally or State listed, proposed, or candidates; plant species that have been designated a California Native Plant Society Rare Plant Rank; and animal species that are designated by the CDFW as fully protected, species of special concern, or watch list species.

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in Section 2 of Township 4 south, Range 27 east. Specifically, the project site is located at Mammoth Creek Park West (686 Old Mammoth Road) and is comprised of Assessor's Parcel Numbers (APNs) 040-140-001-000 and 040-140-002-000.

Project Description

The project consists of constructing new community multi-use facilities at the project site, including a maximum 100-foot by 200-foot ice rink (winter)/recreation/event area covered by an approximately 30,000 square feet roof structure (refer to Exhibit 4, *Depiction of Proposed Project*). In addition, the proposed project includes a 13,000 square-foot complementary community center, reconfiguration and improvements to an existing playground to add accessible interactive components, restroom improvements, and 107 additional surface parking spaces. The project would also include an active outdoor recreation area to the west of the new community multi-use facilities. Upon project completion, the existing Mammoth Ice Rink/RecZone (located at 416 Sierra Park Road) would be made inactive, and the existing community center (located at 1000 Forest Trail) would remain under Town operation.

Methodology

A literature review and records search was conducted to determine which sensitive biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted that provided information on the existing site conditions and the site's potential to support sensitive biological resources.

Literature Review

Prior to conducting the field visit, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. The record search was focused on the Old Mammoth USGS 7.5-minute quadrangles, as well as the three nearby and adjoining quadrangles Mammoth Mountain, Bloody Mountain, and Crystal Crag. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW CNDDB Rarefind 5, the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

Literature detailing biological resources previously observed in the vicinity of the project site and historical land uses were reviewed to understand the extent of disturbances to the habitats on-site. Standard field guides and texts on special-status and non-special-status biological resources were reviewed for habitat requirements, as well as the following resources:

- Google Earth Pro historic and aerial imagery;

- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey;
- USFWS Critical Habitat designations for Threatened and Endangered Species;
- The Birds of North America Online; and
- eBird.

The literature review provided a baseline from which to inventory the biological resources potentially occurring on the project site. Additional recorded occurrences of these species found on or near the project site were derived from database queries. The CNDDB ArcGIS database was used, in conjunction with ArcGIS software, to locate the nearest occurrence and determine the distance from the project site.

Habitat Assessment

Michael Baker biologist, Travis J. McGill, inventoried and evaluated the extent and conditions of the plant communities found within the boundaries of the project site on June 8, 2016. Plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the plant communities and along boundaries between plant communities. The plant communities were evaluated for their potential to support special-status plant and wildlife species as well as the identification of corridors and linkages that may support the movement of wildlife through the area. Special attention was given to any sensitive habitats and/or undeveloped, natural areas having a higher potential to support special-status plant and wildlife species.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded in a standardized field notebook. Observations of wildlife species included scat, trails, tracks, burrows, nests, and visual observation. In addition, site characteristics such as soil condition, topography, presence of indicator species, slope, condition of the plant communities, hydrology, jurisdictional features, and evidence of human use of the site were noted.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field visit using the USDA NRCS Soil Survey for Mono County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes the project site has undergone.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. Plants were identified using keys, descriptions, and illustrations in Munz (1974) and Hickman (2012). Nomenclature for vegetation types generally follows that of *The Vegetation*

Classification and Mapping Program: List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database (CDFW 2010). Additionally, the plant communities were cross referenced with Sawyer, Keeler-Wolf and Evens (2009) and Holland (1986).

Plants

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field, and recorded in a field notebook. Unusual and less familiar plants were identified in the laboratory using taxonomical guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife Species

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of wildlife species during the survey included *The Sibley Field Guide to the Birds of Western North America* (Sibley 2003), *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003), and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Areas

Aerial photography was reviewed prior to conducting the habitat assessment. The aerials were used to locate and inspect any potential natural drainage features and water bodies that may be considered riparian/riverine habitat and/or fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential jurisdictional features and are subject to state and federal regulatory authorities.

Existing Site Conditions

The areas north of the project site have generally undergone a conversion from natural habitats into residential, and commercial land uses, while the area south of the project site is generally undeveloped, open space. The project site is approximately 4.9 acres and is bounded by multi-family residential uses and commercial uses to the north, Old Mammoth Road to the east, recreational open space to the south, and multi-family residential uses to the west. In addition, Mammoth Creek is located approximately 240 feet south of the project site. Vehicular access to the site is provided via Old Mammoth Road, and pedestrians/trail users can access the site via the Town Loop trail to the east and south of the project site. The primary local roadway providing

access to the project site is Old Mammoth Road. The project site is comprised of Mammoth Creek Park West, which currently includes playground equipment, grass/open space, picnic areas, trail connections, and a surface parking lot for 44 vehicles.

On-site elevation ranges from approximately 7,850 to 7,875 feet above mean sea level and generally slopes from northwest to southeast. According to the USDA NRCS Soil Survey, surface soils on and adjacent to the project site consist of Chesaw family soils (0 to 5 Percent Slopes) (refer to Exhibit 5, *Soils*). The Chesaw soil series consists of very deep, somewhat excessively drained soils formed in glacial outwash, and are typically found on terraces, terrace escarpments, and eskers.

Vegetation

The eastern half of the project site consists of the existing Mammoth Creek Park West that is developed and no longer supports native plant communities. However, the western half of the proposed project site is undeveloped and supports native vegetation surrounded by existing developments with several existing dirt trails. One (1) plant community was observed within the boundaries of the project site during the habitat assessment: big sagebrush scrub with scattered pine trees. In addition, three (3) human-modified areas were observed within the boundaries of the project site during the habitat assessment: landscaped, disturbed, and developed. The vegetation communities and land cover types are described in further detail below.

Big Sagebrush Scrub

The undeveloped western half of the project is dominated by a big sagebrush scrub plant community that is primarily composed of big sagebrush (*Artemesia tridentata*). Other common larger woody plant species observed within this plant community include antelope bush (*Purshia tridentate*), and mountain snowberry (*Symphoricarpos rotundifolius*) with sparse aspen (*Populus tremuloides*). Other common plant species observed in this plant community include rabbibrush (*Ericameria nauseosa*), western wallflower (*Erysimum capitatum*), woolly mule's ears (*Wyethia millis*), one seeded pussypaws (*Calyptridium monospermum*), and goosefoot violet (*Viola purpurea* ssp. *purpurea*). Refer to Appendix D for a list of plant species observed on the project site.

Within the big sagebrush scrub plant community are scattered pine trees, primarily Jeffery pine (*Pinus jeffreyi*), and lodgepole pine (*Pinus contorta* ssp. *murrayana*). These individual pine trees are not grouped together and do not provide a dense canopy.

Landscaped

The majority of the eastern half of the project site is comprised of landscaped vegetation associated with Mammoth Creek Park West. This area consists primarily of manicured lawns, and ornamental vegetation that have been planted for the park.

Disturbed

Disturbed areas on the project site no longer support native vegetation or comprise a native plant community, but are generally un-vegetated except for sparse ruderal/weedy plant species that have been subject to human disturbances from recreational activities. Disturbed areas include dirt trails and are composed of heavily compacted soils with early successional and non-native plant species.

Developed

Developed areas generally encompass all buildings, as well as paved, impervious surfaces. Developed areas within the proposed project site include a parking lot, bathroom, park recreational equipment, and paved access routes associated with the Mammoth Creek Park West, and the existing paved Old Mammoth Road.

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predations. This section provides a discussion of those wildlife species that were observed or expected to occur within the project site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

Fish

No fish or hydrogeomorphic features (e.g., creeks, ponds, lakes, reservoirs) with frequent sources of water that would support populations of fish were observed on the project site. It should be noted that Mammoth Creek, located approximately 240 feet south of and outside of the proposed project site supports native fish populations. However, no impacts to Mammoth Creek will occur from development of the proposed project. No water features occur on the project site that would support fish, and as a result, fish are presumed absent from the project site.

Amphibians

No amphibians or hydrogeomorphic features (e.g., creeks, ponds, lakes, reservoirs) with frequent sources of water that would support amphibian species were observed on the project site. Mammoth Creek, south of the project site has the potential to support Sierran treefrog (*Pseudacris sierra*). However, no impacts to Mammoth Creek will occur from development of the proposed project. Further, no water features occur on the project site that would support amphibians, and as a result, no amphibians are expected to occur and are presumed absent from the project site.

Reptiles

Based on the habitats present, the project site provides marginal habitat for a limited number of

reptilian species acclimated to human presence and disturbance. No reptilian species were detected during the habitat assessment. Reptilian species expected to occur on-site include Great Basin fence lizard (*Sceloporus occidentalis longipes*), and sagebrush lizard (*Sceloporus graciosus gracilis*).

Birds

The project site provides suitable foraging and cover habitat for a variety of resident and migrant bird species. Common bird species detected during the field survey included stellar jay (*Cyanocitta stelleri*), brewer's blackbird (*Euphagus cyanocephalus*), common raven (*Corvus corax*), northern flicker (*Colaptes auratus*), northern mockingbird (*Mimus polyglottos*), Bewick's wren (*Thryomanes bewickii*), mountain chickadee (*Poecile gambeli*), red-breasted nuthatch (*Sitta canadensis*), mourning dove (*Zenaida macroura*), American robin (*Turdus migratorius*), brown-headed blackbird (*Molothurs ater*), lesser goldfinch (*Spinus psaltria*), song sparrow (*Melospiza melodia*), cliff swallow (*Petrochelidon pyrrhonota*), and western wood-pewee (*Contopus sordidulus*).

Mammals

The project site and surrounding habitat has the potential to support a limited amount of mammalian species adapted to human disturbances. Only one mammal was observed on-site during the habitat site investigation, lodgepole chipmunk (*Tamias speciosus*). However, most mammal species are nocturnal and are difficult to observe during a diurnal field visit. Other mammalian species that have the potential to occur on-site and have adapted to human presence and development include mule deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), and coyote (*Canis latrans*).

Nesting Birds

No remnant or active avian nests were observed during the June 8, 2016 site investigation. However, the plant communities within the proposed project footprint provide suitable foraging and nesting habitat for a variety of year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. The vegetation located within and surrounding the project site have the potential to provide suitable nesting opportunities for avian species.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for

others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The proposed project site is not located within any local or regional designated migratory corridors or linkages. However, Mammoth Creek, south of and outside of the proposed project site, has the potential to provide west to east wildlife movement opportunities along the riparian corridor associated with the creek from the mountains to the valley floor. The proposed project site will not impact Mammoth Creek and is not expected to disrupt or have any adverse effects to potential wildlife movement along Mammoth Creek.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage or wetland features were observed on the project site during the site investigation that would be considered jurisdictional by the Corps, Regional Board, or CDFW. It should be noted that Mammoth Creek generally flows west to east approximately 240 feet south of the project site. The riparian corridor associated with the Creek is topographically confined and lined with coyote willow (*Salix exigua*), Booth's willow (*S. boothii*) and shining willow (*S. lucida* ssp. *caudata*), alder (*Alnus* sp.), and aspen. Based on the current design plan, no impacts to Mammoth Creek will occur as a result of development of the proposed project. If any impacts to Mammoth Creek and its associated riparian vegetation will occur as a result of the proposed project, regulatory approvals will likely need to be acquired from Corps, Regional Board, and CDFW prior to development of the project site.

Sensitive Biological Resources

The CNDDB was queried for reported locations of listed and special-status plant and wildlife species as well as special-status natural plant communities in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag USGS 7.5-minute quadrangles. A search of published records of these species within these quadrangles was conducted using the CNDDB Rarefind 5 online software. The CNPS Inventory of Rare and Endangered Plants of California supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The habitat assessment was used to assess the ability of the plant communities found on-site to provide suitable habitat for relevant special-status plant and wildlife species.

The literature search identified forty-eight (48) special-status plant species, twenty (20) special-status wildlife species, and one (1) special-status plant community as having the potential to occur within the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag USGS 7.5-minute quadrangles. These special-status plant and wildlife species were evaluated for their potential to occur on the project site based on habitat requirements, availability/quality of suitable habitat, and known distributions. Species determined to have the potential to occur on-site are presented in Attachment C, *Potentially Occurring Special-Status Biological Resources*. Attachment C provides details of the analysis and field surveys regarding the potential occurrence of listed and sensitive plant and wildlife species within the project site.

Special-Status Plants

Forty-eight (48) special-status plant species have been recorded in the CNDDB and CNPS in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles (refer to Attachment C). No sensitive plant species were observed on-site during the habitat assessment. Based on habitat requirements for specific species and the availability and quality of habitats needed by each special-status plant species, it was determined that the project site does not provide suitable habitat for special-status species known to occur in the general vicinity of the project site. All special-status plant species are presumed to be absent from the project site.

Special-Status Wildlife

Twenty (20) special-status wildlife species have been recorded in the CNDDB in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles (refer to Attachment C). No special-status wildlife species observed on-site during the June 8, 2016 field investigation. Based on habitat requirements for specific species and the availability and quality of habitats needed by each special-status wildlife species, it was determined that the project site has a low potential to provide suitable foraging habitat for northern goshawk (*Accipiter gentilis*), silver-haired bat (*Lasionycteris noctivagans*), long-eared myotis (*Myotis evotis*), and Yuma myotis (*Myotis yumanensis*). All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability and quality of habitat needed by each species and known distributions.

Special-Status Plant Communities

The CNDDB lists one (1) special-status plant community as having been recorded in the Old Mammoth, Mammoth Mountain, Bloody Mountain, and Crystal Crag quadrangles: Mono pumice flat (refer to Attachment C). This plant special-status plant community does not occur on-site and no sensitive plant communities occur on the project site.

Critical Habitat

Under the Federal Endangered Species Act, "Critical Habitat" is designated at the time of listing

of a species or within one year of listing. Critical Habitat refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. In the event that a project may result in take or in adverse effects to a species' designated Critical Habitat, the project proponent may be required to engage in suitable mitigation. However, consultation for impacts to Critical Habitat is only required when a project has a federal nexus (i.e. occurs on federal land, is issued federal permits [e.g. Corps Section 404 Clean Water Act permit], or receives any other federal oversight or funding). If a project does not have a federal nexus, consultation with the USFWS is not required for loss or adverse modification to Critical Habitat.

The project site is not located within federally designated Critical Habitat (refer to Exhibit 8, Critical Habitat). The closest designated Critical Habitat is located 2.4 miles south of the project site for Yosemite toad (*Anaxyrus canorus*), and 2.6 miles south of the project site for Sierra Nevada bighorn sheep (*Ovis Canadensis sierra*).

Conclusion

The areas north of the project site have generally undergone a conversion from natural habitats into residential, and commercial land uses, while the area south of the project site is generally undeveloped, open space. The project site is primarily surrounded by existing development to the north, west, and east, and is subject to human disturbances from recreational activities associated with Mammoth Creek Park West. As a result of these disturbances, one plant community was observed within the boundaries of the project site during the habitat assessment, big sagebrush scrub with scattered pine trees. Additionally, three human-modified areas were observed within the boundaries of the project site during the habitat assessment: landscaped, disturbed, and developed.

Based on habitat requirements for specific species and the availability and quality of habitats needed by each special-status plant species and site conditions, it was determined that the project site does not provide suitable habitat for special-status species known to occur in the general vicinity of the project site. All special-status plant species are presumed to be absent from the project site. The project site was determined to have a low potential to provide suitable foraging habitat for northern goshawk, silver-haired bat, long-eared myotis, and Yuma myotis. All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability and quality of habitat needed by each species and known distributions.

Development surrounding the project site and existing land uses and disturbance levels on the project site have limited the site's viability to provide suitable habitat for sensitive biological resources known to occur in the general vicinity of the project site. As a result, no significant adverse impacts to special-status biological resources are identified or anticipated as a result of implementation of the proposed project.

Recommendations

Nesting Birds

Vegetation within and adjacent to the project site has the potential to provide suitable nesting opportunities for avian species. Construction activities should be conducted outside of the avian breeding season to avoid impacts to nesting birds. However, if construction will occur during the avian breeding season, a pre-construction nesting bird clearance survey should be conducted to ensure no birds are nesting on or within 500 feet of the project site.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act, Bald/Golden Eagle Protection Act, and Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513). In order to protect migratory bird species, nesting bird clearance surveys need to be conducted prior to any vegetation removal or any ground disturbing activities that may disrupt nesting birds during the nesting season. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions. Some raptor species can nest as early as December. Therefore, it is recommended that the nesting bird clearance window be expanded from December 1 through August 31.

A pre-construction clearance survey for nesting birds should be conducted within three (3) days prior to any ground disturbing activities to ensure that no nesting birds will be disturbed during construction. As long as development does not cause direct take of a bird or egg(s) or disrupt nesting behaviors, immediate protections would not be required. The biologist conducting the clearance survey should document a negative survey with a report indicating that no impacts to active avian nests will occur.

If an active avian nest is discovered during the pre-construction clearance survey, construction activities might have to be rerouted, a no-work buffer[2] might have to be established around the nest, or construction may be delayed until the nest is inactive. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area if an active nest is observed and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the qualified biologist has determined that young birds have successfully fledged or the nest has otherwise become inactive, a monitoring report shall be prepared and submitted to the applicant for review and approval prior to initiating construction activities within the buffer area. The monitoring report shall summarize the results of the nest monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds. Construction within the designated buffer area shall not proceed until written authorization is

2 The size of the buffer shall be determined by the biologist in consultation with CDFW, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests of non-listed, non-raptors and 500 feet from the nests of listed species or raptors.

received by the applicant from CDFW.

Tree Ordinance

Due to the presence of pine trees on the proposed project site, a tree removal permit or tree removal and protection plan shall be obtained/prepared from the Town of Mammoth Lakes prior to development of the proposed project. Mammoth Lakes Municipal Code Section 17.36.140 includes "provisions to protect and to regulate the removal of certain trees, based on the important environmental, aesthetic and health benefits that trees provide to Mammoth Lakes residents and visitors, and the contribution of such benefits to public health, safety and welfare."

Since the proposed project will receive development approval through a land use, building, or grading permit, a tree removal and protection plan will need to be prepared that is consistent with the standards of Section 17.36.140 of the Mammoth Lakes Municipal Code. As a result, a separate tree removal permit is not required, and removal of trees is considered approved through the land use, building, or grading permit. The tree removal and protection plan shall clearly depict all trees to be preserved and/or removed on the site (refer to Appendix E).

Please do not hesitate to contact Thomas McGill at (909) 974-4907 or tmcgill@mbakerintl.com or Travis McGill at (909) 974-4958 or travismcgill@mbakerintl.com should you have any questions or require further information.

Sincerely,

Thomas J. McGill, Ph.D.
Vice President
Natural Resources

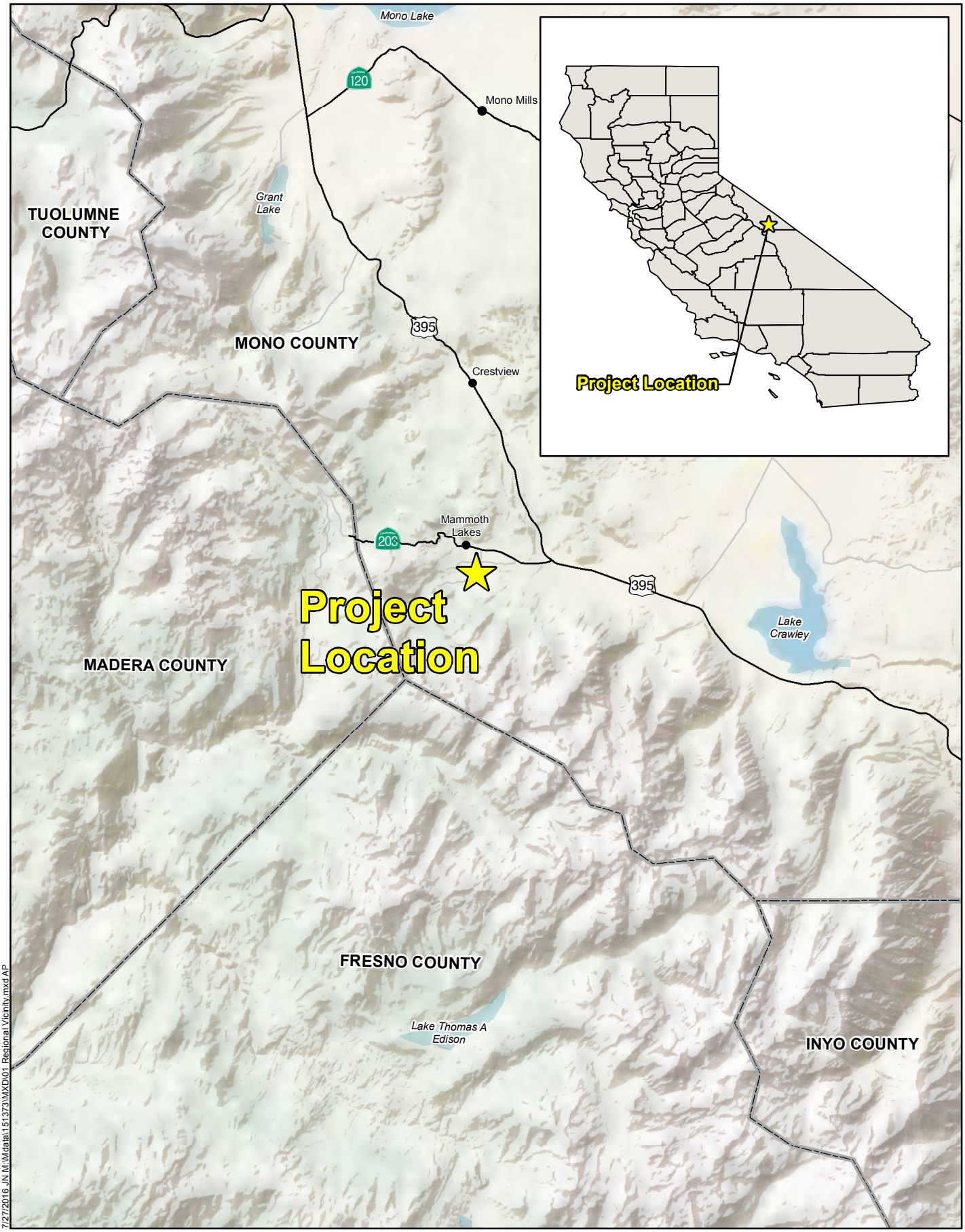
Travis J. McGill
Biologist
Natural Resources

Attachments:

A. *Project Exhibits*
B. *Site Photographs*
C. *Potentially Occurring Special-Status Biological Resources*
D. *Flora and Fauna Compendium*
E. *Mammoth Lakes Municipal Code Section 17.36.140*

Attachment A

Project Exhibits



7/27/2016 J:\N M:\Mdata\151373\MXD\01 Regional Vicinity.mxd AP

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

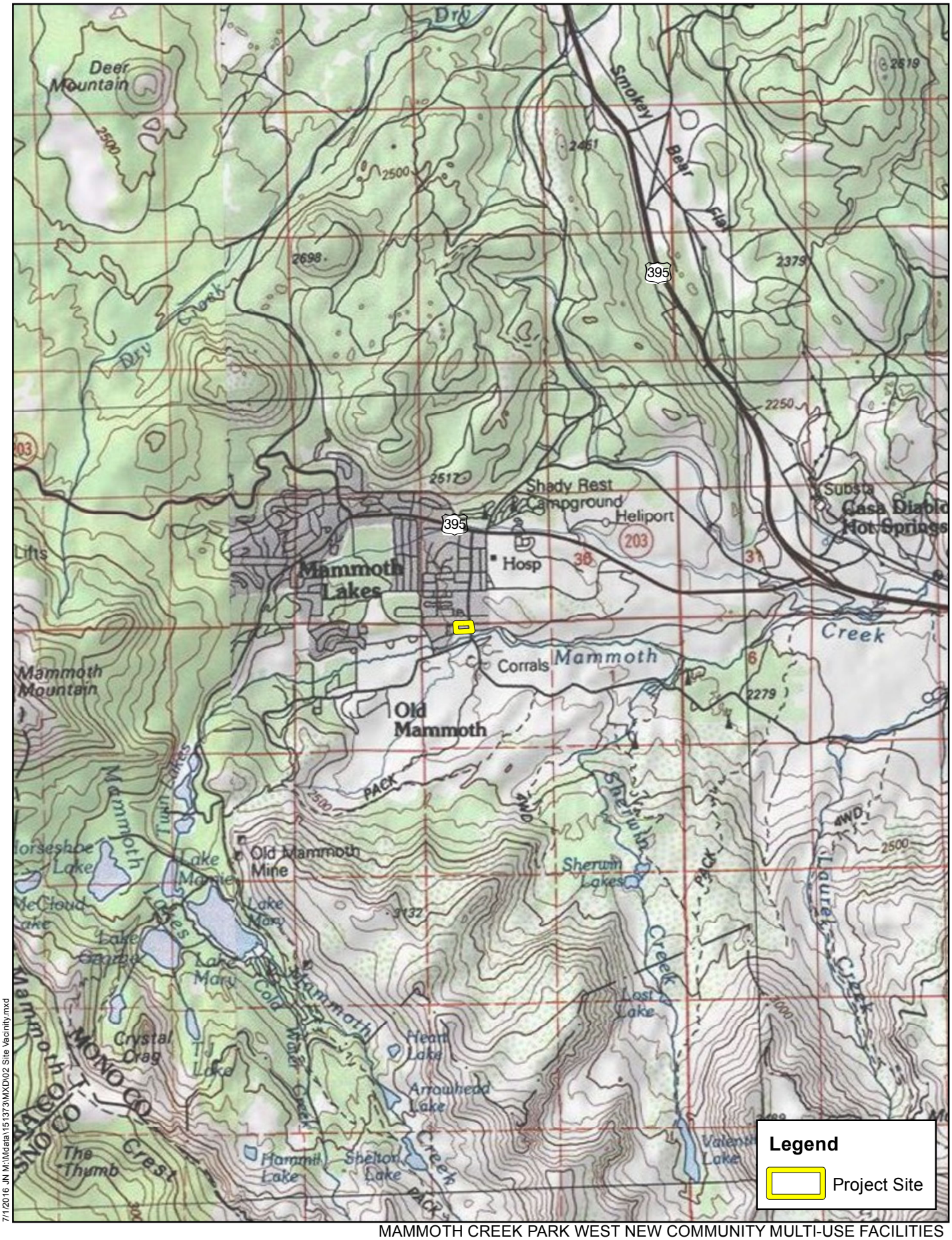
Regional Vicinity

Michael Baker INTERNATIONAL

0 2.5 5 Miles

Source: ESRI Relief Map, National Highway Planning Network

Exhibit 1



7/1/2016 JN M:\Mdata\151373\MXD\02 Site Vicinity.mxd

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

Site Vicinity

Michael Baker INTERNATIONAL

0 0.5 1 Miles

Source: ESRI USA Topographic Basemap

Exhibit 2

7/27/2016 JN M:\Mdata\151373\MXD\03 Project Site 2.mxd

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

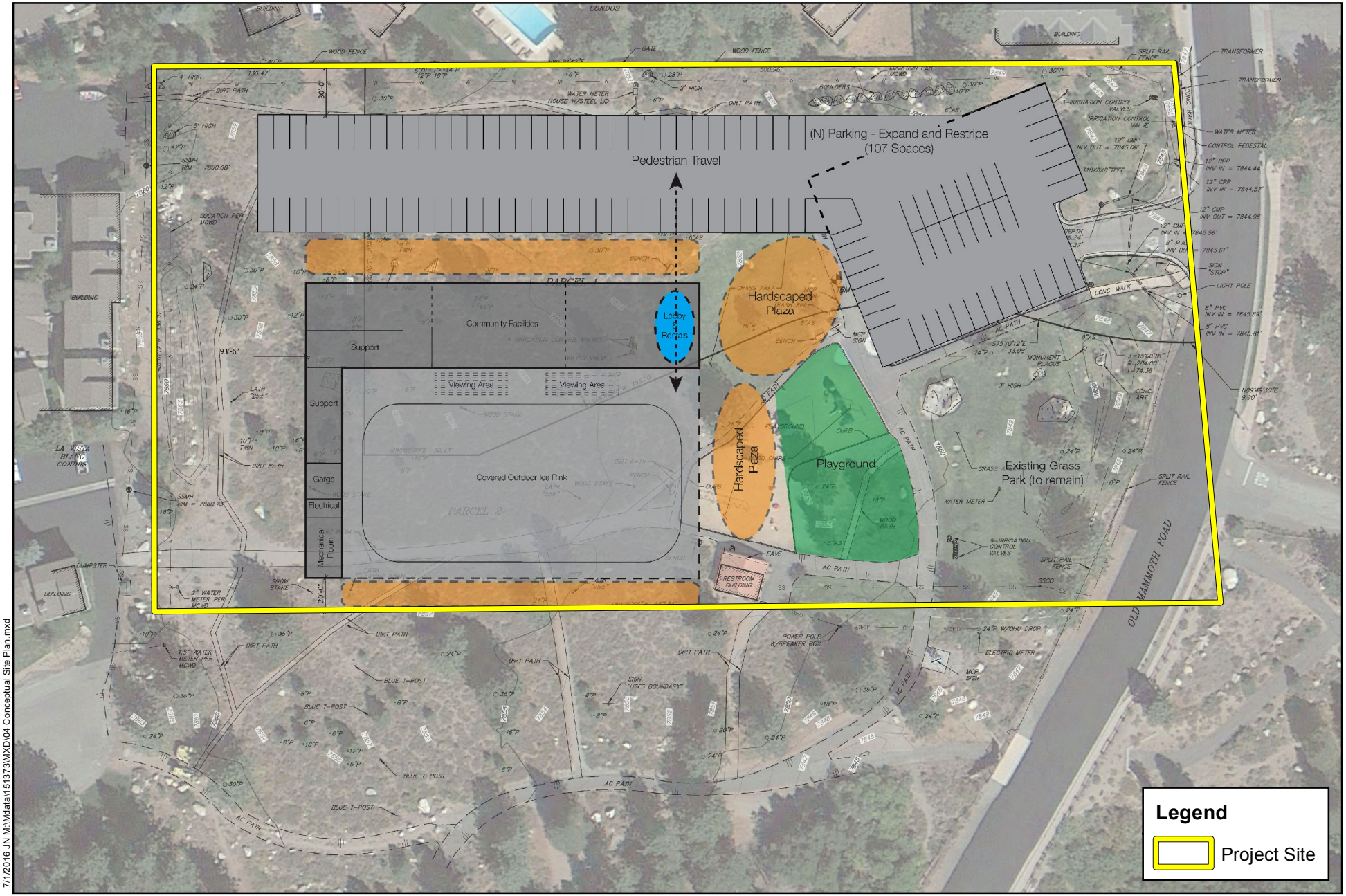
Project Site

Michael Baker INTERNATIONAL

0 100 200 Feet

Source: Michael Baker International

Exhibit 3



7/1/2016 JN M:\Mdata\151373MXD\04 Conceptual Site Plan.mxd

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

Conceptual Site Plan

Michael Baker INTERNATIONAL

0 100 200 Feet

Source: Michael Baker International

Exhibit 4

7/27/2016 JN M:\Mdata\151373\MXD\05 Soils 2.mxd

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

Michael Baker INTERNATIONAL

0 100 200 Feet

Source: Michael Baker International

Soils

Exhibit 5

8/2/2016 JN M:\Mdata\151373\MXD\06 Vegetation 3.mxd

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

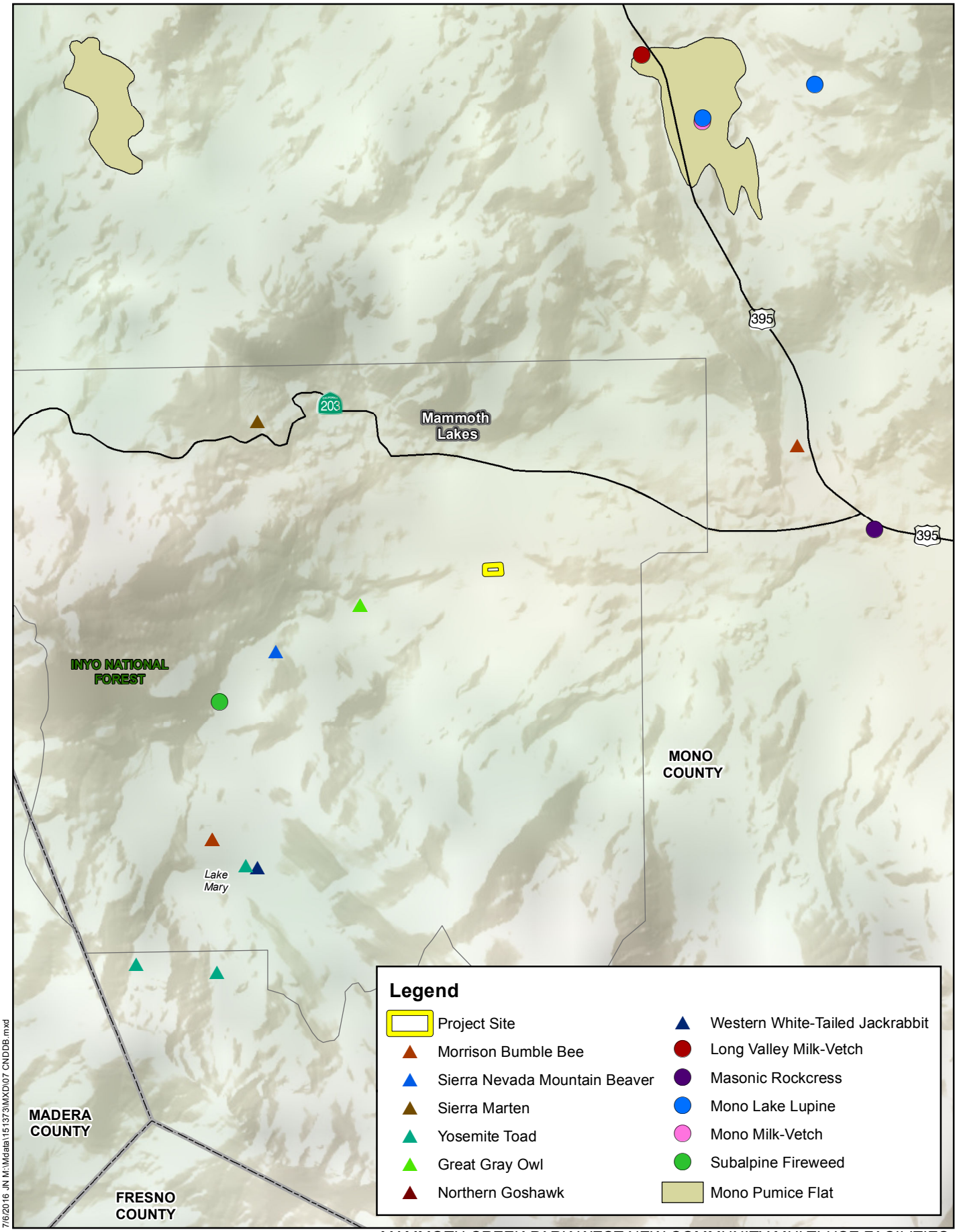
Vegetation

Michael Baker INTERNATIONAL

0 100 200 Feet

Source: Michael Baker International

Exhibit 6



7/6/2016 JN M:\Mdata\151373\MXD\07 CNDDB.mxd

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

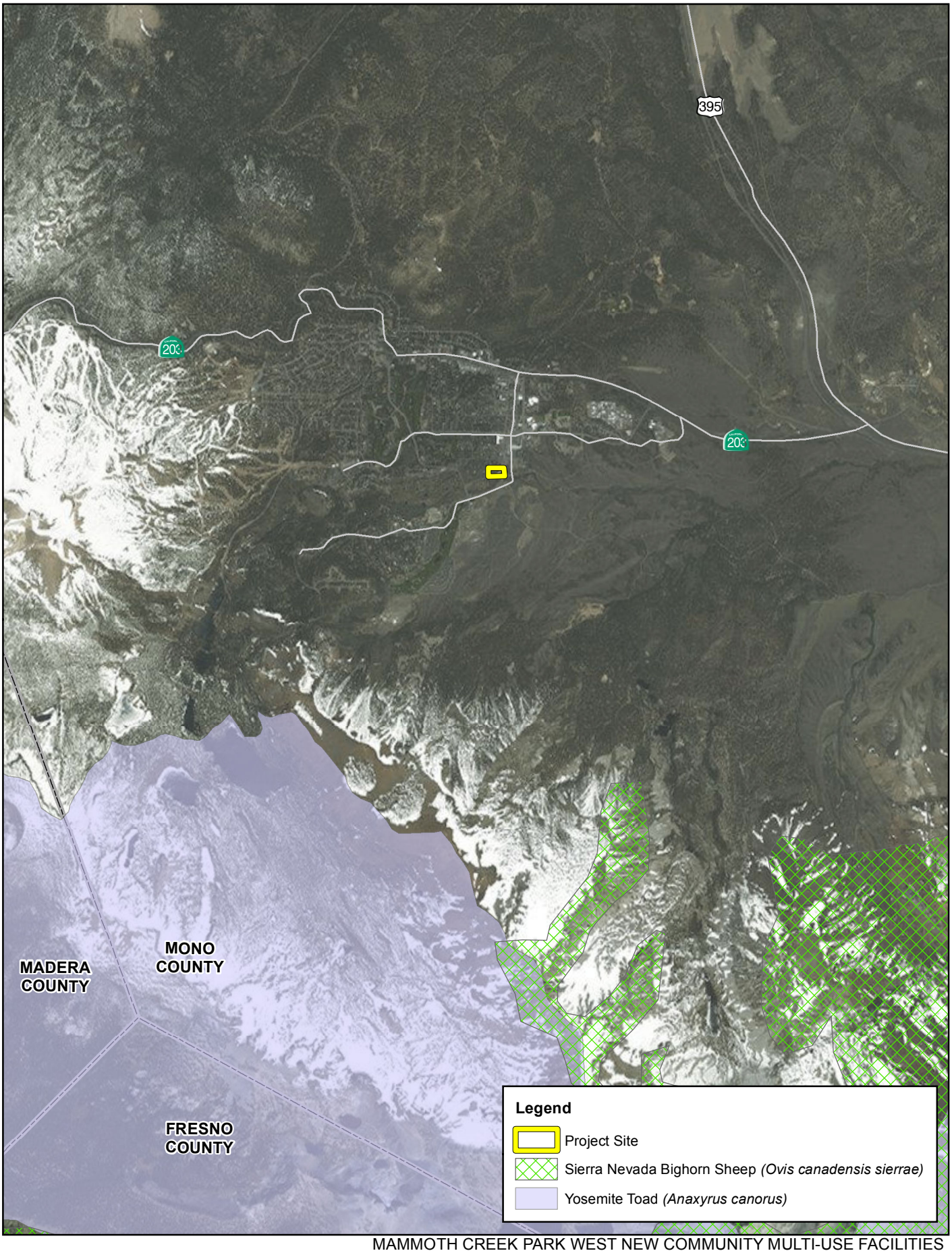
CNDDB

Michael Baker INTERNATIONAL

0 0.5 1 Miles

Source: ESRI USA World Imagery Basemap, California Department of Fish and Wildlife

Exhibit 7



7/27/2016 JN M:\Mdata\151373\MXD\08 Critical Habitat.mxd

MAMMOTH CREEK PARK WEST NEW COMMUNITY MULTI-USE FACILITIES
HABITAT ASSESSMENT

Critical Habitat

0 0.5 1 Miles

Source: USFWS Critical Habitat Portal, ESRI USA World Imagery Basemap

Exhibit 8

Attachment B

Site Photographs

Photograph 1: From the middle of the southern boundary of the western boundary of the project site looking north at the Great Basin sagebrush scrub plant community.

Photograph 2: From the middle of the northern boundary of the project site, looking west along a dirt access trail.

Photograph 3: From the northwest corner of the project site looking south along the western boundary of the project site.

Photograph 4: From the southwest corner of the project site looking east along the southern boundary of the project site.

Photograph 5: From the southeast corner of the western half of the project site looking north.

Photograph 6: From the southeast corner of the project site looking northwest at the existing park.

Photograph 7: Photo of the existing park equipment.

Photograph 8: From the northeast corner of the project site looking southwest across the existing parking lot.

Attachment C

Potentially Occurring Special-Status Biological Resources

Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Wildlife Species				
Accipiter gentilis northern goshawk	Fed: None CA: None	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.
Anaxyrus canorus Yosemite toad	Fed: **THR** CA: None	Vicinity of wet meadows in central High Sierra, 6,400 to 11,300 feet in elevation. Primarily montane wet meadows; also in seasonal ponds associated with lodgepole pine and subalpine conifer forest.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Aplodontia rufa californica Sierra Nevada mountain beaver	Fed: None CA: None	Dense growth of small deciduous trees & shrubs, wet soil, & abundance of forbs in the Sierra Nevada & east slope. Needs dense understory for food & cover. Burrows into soft soil. Needs abundant supply of water.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Bombus morrisoni Morrison bumble bee	Fed: None CA: None	From the Sierra-Cascades ranges eastward across the intermountain west. Food plant genera include Cirsium, Cleome, Helianthus, Lupinus, Chrysothamnus, and Melilotus.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Buteo swainsoni Swainson's hawk	Fed: None CA: **THR**	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Catostomus fumeiventris Owens sucker	Fed: None CA: None	Endemic to the Owens River drainage. In its native river habitat it is most common in areas with long runs & few riffles. Adults can thrive in reservoirs, but need gravelly riffles in tributary streams for spawning.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Gulo gulo California wolverine	Fed: None CA: None	Needs water source. Uses caves, logs, burrows for cover & den area. Hunts in more open areas. Can travel long distances.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Lasionycteris noctivagans silver-hared bat	Fed: None CA: None	Primarily a coastal & montane forest dweller feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes & rarely under rocks. Needs drinking water.	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.
Lepus townsendii townsendii western white-tailed jackrabbit	Fed: None CA: None	Sagebrush, subalpine conifer, juniper, alpine dwarf shrub & perennial grassland. Open areas with scattered shrubs & exposed flat-topped hills with open stands of trees, brush & herbaceous understory.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Martes caurina sierra Sierra marten	Fed: None CA: None	Mixed evergreen forests with more than 40% crown closure along Sierra Nevada & Cascade Mountains. Needs variety of different-aged stands, particularly old-growth conifers & snags which provide cavities for dens/nests.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Myotis evotis long-eared myotis	Fed: None CA: None	Found in all brush, woodland & forest habitats from sea level to about 9000 ft. prefers coniferous woodlands & forests. Nursery colonies in buildings, crevices, spaces under bark, & snags. Caves used primarily as night roosts.	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.
Myotis yumanensis Yuma myotis	Fed: None CA: None	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	No	**Low**. The project site provides suitable foraging habitat, but no suitable nesting habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Ochotona princeps schisticeps grey-headed pika	Fed: None CA: None	Mountainous areas, generally at higher elevations, often above the treeline up to the limit of vegetation. At lower elevations found in rocky areas within forests or near lakes. Talus slopes, occasionally on mine tailings. Prefers talus-meadow interface.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Oncorhynchus clarkii seleniris Paiute cutthroat trout	Fed: **THR** CA: None	Cool, well-oxygenated waters. Cannot tolerate presence of other salmonids, requires clean gravel for spawning.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Pekania pennant fisher –west coast DPS	Fed: **Proposed THR** CA: **Candidate THR**	Intermediate to large-tree stages of coniferous forests & deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs & rocky areas for cover & denning. Needs large areas of mature, dense forest.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Picoides arcticus black-backed woodpecker	Fed: None CA: None	Coniferous forests in the Sierra Nevada and Cascades to the Siskiyou Mountains. Recently burned coniferous forest, areas with dense standing dead trees, and less commonly in unburned forests.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Rana sierra Sierra Nevada yellow-legged frog	Fed: **END** CA: **THR**	Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Sorex lyelli Mount Lyell shrew	Fed: None CA: None	High elevation riparian areas in the southern Sierra Nevada. Requires moist soil, lives in grass or under willows. Uses logs, stumps, etc. for cover.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Strix nebulosi great grey owl	Fed: None CA: **END**	Resident of mixed conifer or red fir forest habitat, in or on edge of meadows. Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy microclimate.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Vulpes vulpes necator Sierra Nevada red fox	Fed: None CA: **THR**	Historically found from the Cascades down to the Sierra Nevada. Found in a variety of habitats from wet meadows to forested areas. Use dense vegetation & rocky areas for cover & den sites. Prefer forests interspersed w/ meadows or alpine fell-fields.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Plant Species				
Agrostis humilis mountain bent grass	Fed: None CA: None CNPS: 2B.3	Alpine bounder and rock field, meadows and seeps, subalpine coniferous forest. Blooming period is July to September. Elevational range 8,760 feet to 10,500 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Antennaria pulchella beautiful pussy-toes	Fed: None CA: None CNPS: 4.3	Alpine boulder and rock field (stream margins), and meadows and seeps. Blooming period is June to September. Elevational range 9,186 feet to 12,139 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Arabis repanda var. greenei Greene's rockcress	Fed: None CA: None CNPS: 3.3	Subalpine coniferous forest, upper montane coniferous forest on granitic, talus, rocky or sandy soils. Blooming period is June to August. Elevational range 7,693 feet to 11,811 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Astragalus johannis-howellii Long Valley milk-vetch	Fed: None CA: Rare CNPS: 1B.2	Great Basin scrub in sandy volcanic ash or pumice soils. Blooming period is June to August. Elevational range from 6,700 feet to 8,300 feet above mean sea level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Astragalus kentrophyta var. danaus Sweetwater Mountains milk-vetch	Fed: None CA: None CNPS: 4.3	Alpine boulder and rock field, subalpine coniferous forest in rocky talus. Blooming period is July to September. Elevational range 9,842 feet to 12,000 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Astragalus monoensis Mono milk-vetch	Fed: None CA: Rare CNPS: 1B2	Great Basin scrub, upper montane coniferous forest, pumice flats with sparse vegetative cover. Blooming period is June to August. Elevational range 6,900 feet to 11,000 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Atriplex pusilla smooth saltbush	Fed: None CA: None CNPS: 2B.1	Great Basin scrub, meadow and seep, wetland. Known from hot springs, and alkali springs. Blooming period is June to September. Elevational range 4,265 feet to 6,560 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Boechera cobrensis Masonic rockcress	Fed: None CA: None CNPS: 2B.3	Great Basin scrub, Pinon and juniper woodlands, usually in sandy soils. Blooming period is June to July. Elevational range 4,430 feet to 11,200 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Boechera pinzliae Pinzl's rockcress	Fed: None CA: None CNPS: 1B.3	Alpine, alpine boulder and rock field, subalpine coniferous forest in steep, unstable scree and sand. Blooming period is July. Elevational range 9,842 feet to 10,990 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Boechera tularensis Tulare rockcress	Fed: None CA: None CNPS: 1B.3	Subalpine coniferous forest, upper montane coniferous forest on rocky slopes. Blooming period is May to August. Elevational range 5,987 feet to 11,000 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Bruchia bolanderi Bolander's bruchia	Fed: None CA: None CNPS: 4.2	Lower montane coniferous forest, meadow and seep, and upper montane coniferous forest. Moss which grows on damp clay soils. Seems to colonize bare soil along streambanks, meadows, fens and springs. Elevational range 5,282 feet to 10,958 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex congdonii Congdon's sedge	Fed: None CA: None CNPS: 4.3	Alpine boulder and rock field, subalpine coniferous forest in rocky soils. Blooming period is July to August. Elevational range 8,530 feet to 12,795 feet above mean seal level.	No	No **Presumed absent**. There is no suitable habi No tat within the proposed project footprint.
Carex davyi Davy's sedge	Fed: None CA: None CNPS: 1B.3	Subalpine coniferous forest, and upper montane coniferous forest. Blooming period is May to August. Elevational range 4,921 feet to 10,500 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex geyeri Geyer's sedge	Fed: None CA: None CNPS: 4.2	Great Basin scrub and lower montane coniferous forest. Blooming period is May to August. Elevational range 3,789 feet to 6,889 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex incurviformis Mt. Dana sedge	Fed: None CA: None CNPS: 4.3	Alpine bounder and rock field. Blooming period is July to August. Elevational range 12,139 feet to 13,320 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex petasata Liddon's sedge	Fed: None CA: None CNPS: 2B.3	Broadleaved upland forest, lower montane coniferous forest, meadow and seep, Pinon and juniper woodlands, and wetlands. Blooming period is May to July Elevational range 2,739 feet to 9,940 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Carex scirpoidea ssp. pseudoscirpoidea Western single-spiked sedge	Fed: None CA: None CNPS: 2B.2	Found in mesic, often carbonate soils in alpine boulder nd rock field, meadows and seeps, and subalpine coniferous forest (rocky). Blooming period is July to September. Elevational range 9,809 feet to 12,139 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Carex tiogana Tioga Pass sedge	Fed: None CA: None CNPS: 1B.3	Meadows and seeps in mesic, lake margins. Blooming period is July to August. Elevational range 10,170 feet to 10,826 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Claytonia megarhiza fell-fields claytonia	Fed: None CA: None CNPS: 2B.3	Alpine, alpine boulder and rock field, and subalpine coniferous forest in the crevices between rock in rocky and gravelly soils. Blooming period is July to September. Elevational range 8,530 feet to 10,940 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Crepis runcinata fiddleleaf hawksbeard	Fed: None CA: None CNPS: 2B.2	Mojavean desert scrub, and Pinon and juniper woodlands in moist, alkaline valley bottoms. Blooming period is May to August. Elevational range 1,246 feet to 10,203 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Cryptantha glomeriflora clustered-flower cryptantha	Fed: None CA: None CNPS: 4.3	Found in granitic or volcanic, sandy soils in Great Basin scrub, meadows and seeps, subalpine coniferous forest, and upper montane coniferous forest. Blooming period is June to September. Elevational range 5,905 feet to 12,303 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba cana canescent draba	Fed: None CA: None CNPS: 2B.3	Alpine, alpine boulder and rock field, limestone, meadow and seep, and subalpine coniferous forest in carbonate substrates. Blooming period is July. Elevational range 9,842 feet to 11,500 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba incrassata Sweetwater Mountain draba	Fed: None CA: None CNPS: 1B.3	Alpine, alpine boulder and rock field, endemic to the rhyolitic substrates of the Sweetwater Mountains on loose step talus slopes. Blooming period is July to August. Elevational range 8,202 feet to 13,000 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba lonchocarpa spear-fruited draba	Fed: None CA: None CNPS: 2B.3	Alpine boulder and rock field, limestone. On limestone scree. Blooming period is June to July. Elevational range 10,793 feet to 11,958 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Draba praealta tall draba	Fed: None CA: None CNPS: 2B.3	Meadows and seeps on mesic sites. Blooming period is July to August. Elevational range 8,202 feet to 11,204 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Elymus scribneri Scribner's wheat grass	Fed: None CA: None CNPS: 2B.3	Alpine, and alpine boulder and rock filed on rocky slopes. Blooming period is July to August. Elevational range 9,500 feet to 13,779 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Epilobium howellii subalpine fireweed	Fed: None CA: None CNPS: 4.3	Meadow and seeps, subalpine coniferous forest, and wetland. Found in wet meadows, mossy seeps. Blooming period is July to August. Elevational range 6,561 feet to 10,239 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Ericameria nana dwarf goldenbush	Fed: None CA: None CNPS: 4.3	Pinon and juniper woodland (rocky, carbonate or granitic soils). Blooming period is July to November. Elevational range 4,800 feet to 9,186 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Eriogonum microthecum var. alpinum northern limestone buckwheat	Fed: None CA: None CNPS: 4.3	Found in alpine dwarf scrub and Great Basin scrub, sometimes rocky or gravelly soils. Blooming period is July to September. Elevational range 8,202 feet to 10,826 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Eriophorum gracile slender cottongrass	Fed: None CA: None CNPS: 4.3	Bogs and fends, meadows and seems, and upper montane coniferous forest in acidic soils. Blooming period is May to September. Elevational range 4,200 feet to 9,514 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Festuca minutiflora small-flowered fescue	Fed: None CA: None CNPS: 2B.3	Alpine boulder rand rock field. Blooming period is July. Elevational range 10,500 feet to 13,287 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Hulsea brevifolia short-leaved hulsea	Fed: None CA: None CNPS: 1B.2	Lower montane coniferous forest and upper montane coniferous forest in granitic or volcanic soil of forest openings and road cuts. Blooming period is July to September. Elevational range 1,500 feet to 10,500 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Hulsea vestita ssp. parryi Parry's sunflower	Fed: None CA: None CNPS: 4.3	Lower montane coniferous forest, pinon and juniper woodland, upper montane coniferous forest in granitic or carbonate, rocky soils. Blooming period is April to August. Elevational range 4,494 feet to 9,498 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Ivesia unguiculata Yosemite ivesia	Fed: None CA: None CNPS: 4.2	Meadows and seeps, subalpine coniferous forest, and upper montane coniferous forest. Blooming period is July to September. Elevational range 4,921 feet to 9,596 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Kobresia myosuroides Seep kobresia	Fed: None CA: None CNPS: 2B.2	Alpine boulder and rock field (mesic), meadows and seeps, and subalpine coniferous forest. Blooming period is June to August. Elevational range 4,888 feet to 10,646 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Lupinus duranii Mono Lake lupine	Fed: None CA: None CNPS: 1B.2	Great Basin scrub, subalpine coniferous forest, and upper montane coniferous forest in pumice flats, coarse barren soils of volcanic origin. Blooming period is May to August. Elevational range 2,500 feet to 10,000 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Meesia longiseta long seta hump moss	Fed: None CA: None CNPS: 2B.3	Bogs and fens, meadows and seeps, upper montane coniferous forest on moist soils along streams and meadows, often carbonate. Elevational range 5,741 feet to 10,000 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Mentzelia monoensis Mono Craters blazing star	Fed: None CA: None CNPS: 4.3	Great Basin scrub, and upper montane coniferous forest in pumice, gravelly, disturbed areas. Blooming period is May to July. Elevational range 6,578 feet to 8,136 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Minuartia stricta bog sandwort	Fed: None CA: None CNPS: 2B.3	Alpine boulder and rock field, alpine dwarf scrub, and meadows and seeps. Blooming period is July to September. Elevational range 8,000 feet to 13,000 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Phacelia inyoensis Inyo phacelia	Fed: None CA: None CNPS: 1B.2	Meadow and seep, in alkaline meadows. Blooming period is April to August. Elevational range 3,000 feet to 10,500 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-site**	**Potential to Occur**
Potamogeton robbinsii Robbin's pondweed	Fed: None CA: None CNPS: 2B.3	Marshes and swamps, wetlands. Deep water, lakes. Blooming period is July to August. Elevational range 5,000 feet to 10,826 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Puccinellia simplex California alkali grass	Fed: None CA: None CNPS: 1B.2	Found in chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools in alkaline, vernally mesic, sinks, flats, and lake margins. Blooming period is March to May. Elevational range 6 feet to 3,051 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Salix brachycarpa var. brachycarpa Short-fruited willow	Fed: None CA: None CNPS: 2B.3	Alpine dwarf scrub, limestone, meadow and seeps, subalpine coniferous forest, and wetland. Found on edges of lakes, and in wet meadows, on limestone, marble, and metamorphic substrates. Blooming period is June to July. Elevational range 9,816 feet to 10,252 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Salix nivalis snow willow	Fed: None CA: None CNPS: 2B.3	Alpine dwarf scrub. Blooming period is July to August. Elevational range 10,170 feet to 11,482 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Sedum pinetorum Pine City sedum	Fed: None CA: None CNPS: 3	Alpine boulder and rock field, subalpine coniferous forest, likely on rocky volcanic slopes. Blooming period is July.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Senecio hydrophiloides sweet marsh ragwort	Fed: None CA: None CNPS: 4.2	Lower montane coniferous forest, meadows and swamps (mesic). Blooming period is May to August. Elevational range 0 feet to 9,186 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Stuckenia filiformis ssp. alpine slender-leaved pondweed	Fed: None CA: None CNPS: 2B.2	Marshes and swamps (assorted shallow freshwater). Blooming period is May to July. Elevational range 984 feet to 7,053 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Triglochin palustris marsh arrow-grass	Fed: None CA: None CNPS: 2B.3	Meadows and seeps, marshes and swamps (freshwater), subalpine coniferous forest (mesic). Blooming period is July to August. Elevational range 7,500 feet to 12,139 feet above mean seal level.	No	**Presumed absent**. There is no suitable habitat within the proposed project footprint.
Sensitive Habitats				
Mono Pumice Flat	CDFW Sensitive Habitat	Pumice substrate, Parry rabbitbrush (*Ericameria parryi*) sole or dominant shrub in canopy; bitterbrush, big sagebrush, ephedras, and rabbitbrush may be present.	No	**Absent**

U.S. Fish and Wildlife Service (USFWS) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered
THR- California Threatened
FP- Fully Protected
CSC- California Species of Concern
WL- Watch List

California Native Plant Society (CNPS)
California Rare Plant Rank
1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is Needed – A Review List
4 Plants of Limited Distribution – Watch List

Threat Ranks
0.1- Seriously Threatened in California
0.2- Moderately Threatened in California
0.3- Not Very Threatened in California

Attachment D

Flora and Fauna Compendium

Table D-1: Plant Species

Allium campanulatum	Sierra onion
Allophyllum gilioides ssp. violaceum	dense false gilia
Alnus incana ssp. tenuifolia	creek alder
Aquilegia Formosa	columbine
Arctostaphylos patula	manzanita
Bromus tectorum	downey chess
Calochortus leichtlinii	Leichtlin's mariposa lily
Calyptridium monospermum	one seeded pussypaws
Chamaesaracha nana	dwarf chamaesaracha
Cymopterus terebinthinus	rurpentine cymopterus
Eleocharis sp.	spikerush
Ericameria nauseosa	rabbitbrush
Erigeron breweri	Brewer's fleabane
Erigeron glacialis var. hirsutus	wandering fleabane
Erodium ssp.	filaree
Erysimum capitatum	western wallflower
Iris missouriensis	western blue flag
Pinus contorta ssp. murrayana	Lodegpole pine
Pinus jeffreyi	Jeffery pine
Poa secunda	pine bluegrass
Populus tremuloides	Quaking aspen
Purshia tridentate	Antelope bush
Ribes ssp.	gooseberry
Symphoricarpos rotundifolius	mountain snowberry
Viola purpurea ssp. purpurea	goosefoot violet
Wyethia mollis	woolly mule's ears
Cryptantha sp.	popcorn flower
Lupinus ssp.	lupine

Table D – 2: Wildlife Species

Scientific Name	**Common Name**
Aves	**Birds**
Colaptes auratus	northern flicker
Contopus sordidulus	western wood-pewee
Corvus corax	common raven
Cyanocitta stelleri	*Stellar jay*
Euphagus cyanocephalus	Brewer's blackbird
Melospiza melodia	song sparrow
Mimus polyglottos	northern mockingbird
Molothurs ater	brown-headed blackbird
Petrochelidon pyrrhonota	cliff swallow
Poecile gambeli	Bewick's wren
Sitta canadensis	red-breasted nuthatch
Spinus psaltria	lesser goldfinch
Thryomanes bewickii	mountain chickadee
Turdus migratorius	American robin
Zenaida macroura	mourning dove
Mammalia	**Mammals**
Tamias specissus	Lodgepole chipmunk

Attachment E

Mammoth Lakes Municipal Code Section 17.36.140

17.36.140 - Tree Removal and Protection.

A. **Purpose.** This section includes provisions to protect and to regulate the removal of certain trees, based on the important environmental, aesthetic and health benefits that trees provide to Mammoth Lakes residents and visitors, and the contribution of such benefits to public health, safety and welfare. These benefits include, but are not limited to, enhancement of the character and beauty of the community as a "Village in the Trees," protection of property values, provision of wildlife habitat, reduction of soil erosion, noise buffering, wind protection, and visual screening for development.

B. **Applicability.** The terms and provisions of this section shall apply to all private and public property within the Town of Mammoth Lakes.

C. **Exemptions.** The following shall be exempt from the provisions of this section:
   1. Removal of a tree that presents an immediate safety hazard to life or property, as determined by the Town Manager, Director, Building Official, Public Works Director, Police Chief, Fire Marshall, Public Utility Company, or their designees.
   2. Routine tree maintenance, such as the trimming or thinning of branches.
   3. Tree removal performed by the Town, public utilities, or other public agencies in public utility easements or public rights-of-way;
   4. Tree removal for fuels reduction purposes on publicly owned land, performed in conjunction with an approved fuel reduction program or activity;
   5. Removal of trees felled by natural weather conditions or an act of God;
   6. Removal of visibly dead trees; and
   7. Coniferous and deciduous trees with a "Diameter at Breast Height" (DBH) of less than 12 inches.

D. **Tree removal permit required.** No person shall remove or cause to be removed any tree from any property, which is subject to this section and not otherwise exempted pursuant to Section 17.36.140.C, 17.36.140.F. or 17.36.140.G, without first obtaining a valid tree removal permit pursuant to the requirements of Chapter 17.60 (Applications, Processing, and Fees).

E. **Tree removal permit application and review.**
   1. ***Tree removal permit application.*** The following information shall be provided in the tree removal permit application:
      a. A site plan or drawing showing the location, type and size of all tree(s) proposed to be removed;
      b. A statement of the reasons for removal; and
      c. Written consent of the owner of record of the land on which the tree(s) are proposed to be removed, or their authorized agent or contractor.
   2. ***Tree removal permit review.*** The following shall be considered when reviewing tree removal permits:
      a. The Director shall inspect the property and evaluate each application. The applicant shall clearly mark or flag all trees proposed for removal.
      b. The Director shall issue a permit if any of the conditions 1. through 10. below are determined to apply. The Director may request the applicant to provide a professional assessment by a Registered Professional Forester (RPF) or arborist to support the reasons for the proposed tree removal.
         i. The tree(s) is infected with an epidemic insect or disease where the recommended control is not applicable and an arborist has recommended removal to prevent transmission;
         ii. The tree is visibly dying;
         iii. The tree(s) presents a hazard to health, safety or property that cannot be corrected by pruning, transplanting or other treatments;

iv. The tree(s) severely interfere with the growth and development of a more desirable tree;

v. The removal of the tree would be necessary to provide for the required amount of snow storage on a residential or commercial property;

vi. The removal of the tree would substantially increase mid-day solar access to a solar collector;

vii. The tree(s) interferes or is causing extensive damage to utility services or facilities, roadways, sidewalks, curbs, gutters, pavement, water or sewer line, foundations or existing structures;

viii. The removal of the trees(s) would be necessary to maintain defensible space around a structure, or for fuels reduction purposes approved by Mammoth Lakes Fires Protection District;

ix. The removal of the tree(s) would allow for improved enjoyment or quality of a publicly-accessible recreation or event site (e.g., improved event circulation or seating, enhanced golf course playability, etc.) consistent with the Town's destination resort objectives.

x. Other reason, which, in the determination of the Director, would be necessary to maintain public health, safety or welfare, or to avoid damage to buildings or property.

c. Creation of views, lawns, or similar amenities shall not be sufficient cause to remove trees.

3. Expiration of tree removal permits. Tree removal permits shall remain valid for a period of five years from date of issue.

F. **Multi-family residential project tree management plan.** An Administrative Permit for a tree management plan may be approved by the Director for an existing multi-family residential or lodging property of twenty-five units or more consistent with the standards of this section. Separate tree removal permits would not be required with an approved tree management plan.

1. ***Tree Management Plan.*** A tree management plan shall include the following information:
   a. Name of multi-family residential or lodging property.
   b. Narrative describing purpose and objectives of the tree management plan.
   c. Location, species, diameter at DBH, reason, and anticipated year of removal for each tree expected to be removed under the management plan.
   d. Signature of certified RFP or arborist certifying the validity of the tree management plan.
2. ***Expiration of tree maintenance plan.*** Tree management plans shall remain valid for a period of five years from date of issue. Substantial revisions or amendments to an approved tree management plan shall be approved by the Director.

G. **Construction-related tree removal and protection.** If a site has received development approval through a land use, building, or grading permit that includes a tree removal and protection plan consistent with the standards of this section, then a separate tree removal permit is not required, and removal of trees is considered approved through the land use, building, or grading permit.

1. *Tree removal and protection plan.* A tree removal and protection plan is required prior to conducting development activities which require a land use permit, building permit or grading permit, including, but not limited to, clearing, grading, excavation or demolition work on any property or development site containing one or more trees.
   a. The tree removal and protection plan shall clearly depict all trees to be preserved and/or removed on the site. The plan must be drawn to scale and include the following:
      i. Location, species and diameter of each tree at DBH.
      ii. Clear identification of all trees proposed to be removed.
      iii. Location of drip line of each tree.
      iv. Location of existing and proposed roads, water, sanitary and storm drain, irrigation and other utility lines/facilities and easements.

v. Location of existing and proposed structures.

vi. Grade change or cut and fill during or after construction.

vii. Existing and proposed impervious surfaces.

viii. Location and type of tree protection measures to be installed per Section G.1.b., below.

b. *Tree protection measures.* Except as otherwise allowed by the review authority or Director, all required tree preservation measures set forth in this section shall be instituted prior to any construction or development activities, including but not limited to, clearing, grading, excavation or demolition work, and shall be removed only after completion of all construction activity, including landscaping and irrigation installation.

i. Fencing, a minimum of three feet tall with posts placed no more than ten feet apart shall be installed at the edge of the tree drip line. Fencing shall be flush with the initial (undisturbed) grade.

ii. No construction activity shall occur within the tree drip lines, including, but not limited to dumping or storage of materials such as building supplies, soil, waste items, equipment or parked vehicles.

iii. Tree drip lines shall be maintained free of chemically injurious materials and substances such as paints, thinners, cleaning solutions, oil and gasoline, concrete or drywall excess, construction debris or run-off.

iv. No excavation, trenching, grading, root pruning or other activity shall occur within the drip line unless approved by the review authority or the Director.

v. The applicant shall not proceed with any development or construction activities, except installation of erosion control measures, until the Town has inspected and approved the installation of the required tree protection measures and a grading and/or building permit has been issued by the Town.

c. *Waiver of requirement to provide tree removal and protection plan.* The Director may waive the requirement to provide a tree removal and protection plan where it can be demonstrated, to the Director's satisfaction, than no trees would be removed or otherwise directly or indirectly affected by the proposed activity.

H. **Penalty for removal of a tree without a permit.** The following penalties may be imposed for removal of a tree(s) without an approved tree removal permit where one is required, consistent with Municipal Code Section 8.32 (Administrative Citations).

1. Coniferous trees over 12 inches: a fine of no less than $2,500 per tree and/or as valued by an RPF or arborist; in no circumstances shall the fine be less than $2,500 and no more than $50,000, per tree;
2. Deciduous trees over 12 inches: a fine of $1,000 per tree and/or as valued by an RPF or arborist; in no circumstances shall the fine be less than $1,000 and no more than $5,000;
3. Replacement plantings may be required as determined by the Director consistent with Section 17.36.140. I, which may include valuation by an RPF or arborist.

I. **Mitigation for tree removal.** As mitigation for tree removal, either in conjunction with a tree removal permit, construction-related tree removal, or as penalty for tree removal performed without a permit, the Director may require replacement plantings. If required, replacement shall be limited to plantings in areas suitable for tree replacement with species identified in the Town of Mammoth Lakes' Recommended Plant List. The replacement ratio shall be determined by the Director. If required, the minimum replacement tree size shall be seven gallons. Replacement requirements may also be determined based on the valuation of the tree as determined by an RPF or arborist. The property owner shall maintain plantings to a level approved by the Director.

(Ord. No. 14-02, § 4, 3-19-2014; Ord. No. 15-01, § 4(Exh. A, § 26), 1-21-2015)

11.3 Cultural Resource Studies

APPENDIX 11.3

CULTURAL RESOURCE STUDIES

A *Phase I Cultural Resources Study* (Phase I Cultural Study), and *Phase II Cultural Resources Report* (Phase II Cultural Study), were prepared for the proposed project by Rincon Consultants, Inc. (Rincon). These reports are dated September 28, 2016 and December 1, 2016, respectively.

The Phase I and Phase II reports contain sensitive and confidential information concerning Native American site and component locations and are not for general distribution. Archaeological site locations are exempted from the California Public Records Act, as specified in Government Code 6254.10, and from the Freedom of Information Act (Exemption 3), under the legal authority of both the National Historic Preservation Act (PL 102-574, Section 304[a]) and the Archaeological Resources Protection Act (PL 96-95, Section 9[a]). Sections of the reports contain maps and other sensitive information. Should any individuals request to review these reports, they should contact the Town directly for consultation. The covers and table of contents of these reports are included in this Appendix.

Michael Baker International

Community Multi-Use Facilities Project

Phase I Cultural Resources Study

U.S.G.S. *Old Mammoth* quadrangle

Prepared for:
Michael Baker International
14725 Alton Parkway
Irvine, CA 92618-2027

Prepared by:
Rincon Consultants, Inc.
255 West Fallbrook Avenue, Suite 103
Fresno, CA 93711

Authors: Hannah Haas, B.A.,
and Christopher Duran, M.A., RPA

Revised
September 28, 2016

Keywords: USGS Old Mammoth Quad; Mono County; intensive pedestrian survey; records search; P-26-000561; CA-MNO-561; USFS No. 05-04-52-43

CONFIDENTIAL DISTRIBUTION

The following document contains sensitive and confidential information concerning Native American site and component locations and **this report are not for general distribution**. Archaeological site locations are exempted from the California Public Records Act, as specified in Government Code 6254.10, and from the Freedom of Information Act (Exemption 3), under the legal authority of both the National Historic Preservation Act (PL 102-574, Section 304[a]) and the Archaeological Resources Protection Act (PL 96-95, Section 9[a]). Sections of this report contain maps and other sensitive information. Distribution should be restricted appropriately.

Haas, H., and C. Duran

2016 *Phase I Cultural Resources Study for the Community Multi-Use Facilities Project, Town of Mammoth Lakes, Mono County, California*. Rincon Consultants Project No. 15-02221. Report on file at the Eastern Information Center, Riverside, California.

Community Multi-Use Facilities Project

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Michael Baker International

Community Multi-Use Facilities Project

Phase II Cultural Resources Report

U.S.G.S. *Old Mammoth* quadrangle

Prepared for:
Michael Baker International
14725 Alton Parkway
Irvine, CA 92618-2027

Prepared by:
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255 West Fallbrook Avenue, Suite 103
Fresno, CA 93711

Authors: Hannah Haas, B.A.,
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Revised
December 1, 2016

Keywords: USGS Old Mammoth Quad; Mono County; Phase II; testing; CA-MNO-561; USFS No. 05-04-52-43

rincon

Environmental Scientists Planners Engineers

CONFIDENTIAL DISTRIBUTION

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Haas, H., and C. Duran

2016 *Phase II Cultural Resources Report for the Community Multi-Use Facilities Project, Town of Mammoth Lakes, Mono County, California*. Rincon Consultants Project No. 15-02221. Report on file at the Eastern Information Center, Riverside, California.

Community Multi-Use Facilities Project

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11.4 Traffic Impact Analysis

TRANSPORTATION CONSULTANTS, INC.

TRANSPORTATION PLANNING AND TRAFFIC ENGINEERING CONSULTANTS

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Tahoe City, California 96145
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www.lsctahoe.com • info@lsctahoe.com

TECHNICAL MEMORANDUM

DATE: July 29, 2016

TO: Eddie Torres, Michael Baker International

FROM: Sara Hawley and Leslie Suen, LSC Transportation Consultants

SUBJECT: Mammoth Community and Multi-Use Facilities Focused Traffic Impact Analysis

INTRODUCTION

In this Memo, LSC will evaluate the transportation impacts of the proposed Community and Multi-Use Facilities at Mammoth Creek Park, which is located on the west side of Old Mammoth Road between Chateau Road and Mammoth Creek Road in the Town of Mammoth Lakes, California. This project includes the relocation of the existing multi-use facility (mainly the skating rink) from the Mammoth Unified School District site and the construction of a new Community Center. Note the existing community center located on Forest Trail will remain in place.

EXISTING CONDITIONS

This study analyzes the following intersections:

- Old Mammoth Road/Meridian Boulevard
- Old Mammoth Road/Chateau Road
- Old Mammoth Road/Mammoth Creek Park Site Access

Figure 1 presents the site location and lane configuration and intersection control devices for all of the study intersections.

Year 2015 turning movement volumes were developed as part of the recent Mammoth Mobility Element EIR for all study intersections except the Mammoth Creek Park Site Access along Old Mammoth Road. These volumes were increased by a 1 percent average annual growth rate, based on Caltrans traffic volumes in Mammoth, to estimate existing year 'no project' traffic volumes. Even though the

existing park is closed in the winter, 8 existing vehicle trips are estimated to be generated (with 4 entering and 4 exiting the site) in the existing winter PM peak hour. Considering that a minimal amount of traffic uses the plowed parking lot and playground (in low snow years) or the park for snow play. The estimated 'existing no project' peak-hour traffic volumes are shown in Table 1.

FUTURE CUMULATIVE CONDITIONS

The Town of Mammoth Lakes Travel Demand Model was recently updated as part of the Mammoth Mobility Element EIR. During this process several model alternatives were developed. Town staff have directed that the 'future model with new FAR (floor area ratio) and with the new Mobility Element" version should be used for purposes of this analysis.

The Mammoth Creek Park site is in the Mammoth Travel Model as TAZ (Traffic Analysis Zone) 140. The existing model land uses in TAZ 140 are 12 acres of Public Utilities, which remains the same in the future model. In other words, the model estimates no additional land uses would be constructed in this area. Therefore the proposed project would be above and beyond the future model's estimation.

Future turning movement volumes were pulled from the Model for all study intersections with the exception of the site access driveway, as this intersection is not represented in the model. Future volumes entering and exiting the proposed site would remain unchanged in the future without the project.

TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

Project Description

The proposed project includes the relocation of the existing multi-use facility (mainly the skating rink) from the Mammoth Unified School District (MUSD) site and the construction of a new Community Center at the Mammoth Creek Park site. The current amenities (mainly the playground and bike trail access) will remain unchanged at Mammoth Creek Park. The project proposes the following components:

- Multi-Use Facility - The proposed Multi-Use Facility will include a maximum of a 100-foot by 200-foot ice rink (winter)/recreation/event area covered by a roof structure of approximately 30,000 square feet. The activity levels at the new ice rink would be similar to the existing ice rink.

- Community Center - The proposed new Community Center will include a 13,000 square foot building with 2 large conference rooms, an office, 3 small multipurpose rooms, restrooms and locker rooms.

- The area to the west of the proposed Community Multi-Use Facility would be used as an active Outdoor Recreation Area. Possible activities for this portion of the project site include a dog park, bicycle dirt track, sledding hill, and/or a community garden.

Trip Generation

"Trip generation analysis" is the process by which transportation analysts identify the number of vehicle-trips that a specific proposed land use plan would add to local roadways. First, the trip

generation of the proposed project is estimated. Next a credit for trips to be eliminated from the site of the existing ice rink is estimated. Finally, the "project net impact" on total trip generation through the study area is determined.

The *ITE Trip Generation Manual* does contain trip rates for an ice skating rink but the rates are not useable because there are too few data points available. Additionally for the proposed multi-use facility the *ITE Manual* standard trip generation rates would not accurately reflect the trip generation due to the unique activities to be offered at the facility. Therefore, trip generation for this project is based on a 'person-trip analysis'. Consistent with Town standards, the design day is a busy winter Saturday but not a peak time (such as Christmas week). A list of all activities that would take place at the new Multi-Use/Community Center is shown in Table 2. Programs/activities included in the design day are indicated with a 'yes' in the far right column. These design day activities are then listed in the daily trip generation table (Table 3).

The person trip analysis is based on the following assumptions:

- The following mode split is based on estimated transit usage from the Town of Mammoth Lakes Travel Demand Model.
    - Walking Trips = 5%
    - Transit Trips = 14%
    - Automobile Trips = 81%

- The average vehicle occupancy is estimated at 2.7 persons per vehicle. This is based on the Town of Mammoth Lakes Travel Model Report (LSC, 2011) vehicle occupancy estimates for project-related trip types.

- A significant proportion of activity participants will be dropped off and picked up, which doubles the number of trips generated (as each drop-off or pick-up generates two trips at the site driveway, one inbound and one outbound). As shown in Tables 3, pick-up/drop-off percentages vary based on activity. The portion of persons dropped-off/picked-up for each activity was estimated by Town staff.

Multiplying the persons traveling via auto by two person-trips per day dividing by the vehicle occupancy rate and adding the additional vehicles trips generated by drop-off and pick-up activity, yields the total number of vehicle trips per day at the site driveway. As shown in the right side of Table 3, it is estimated that the Multi-Use/Community Center would generate 590 daily trips. The number of these trips occurring in the peak hour is summarized in Table 4 for a total of 116 PM peak hour (62 entering, 54 exiting). Not all the trips generated by the project are "new" trips as all the ice skating rink-related trips are already on the area roadways. These trips will be shifted to the new site; therefore the net impact of the project on area roadways is 210 daily trips with 36 occurring in the peak hour (16 entering, 20 exiting).

Trip Distribution and Assignment

The distribution of traffic arriving and departing the project site is estimated based on existing traffic patterns, the location of the site relative to residential and commercial uses in the region, and regional access patterns. Based on a review of these factors, the estimated distribution pattern for trips made in

and out of the project site is summarized in Table 5. The site-generated trips are assigned through the study intersections by applying the trip distribution pattern to the trip generation from Table 3. Next the shift in existing trips from the existing ice rink to the new ice rink is estimated. Adding this shift to the new site-generated trips yields the 'project net impact' on the study intersection volumes, which is shown in Table 1. Adding these volumes to the 'no project' volumes yields the existing plus project volumes, which are also shown in Table 1.

TRAFFIC IMPACTS

The following potential areas of transportation impacts are considered in this section:

- Intersection Level of Service
- Need for Turn Lanes, Signals or Roundabouts
- Vehicle Miles Traveled

Intersection Level of Service

Level of Service Standard

Level of Service (LOS) is commonly used as a qualitative description of intersection operation and is based on the type of traffic control and delay experienced at the intersection. Intersection LOS was evaluated using Synchro software (Version 8.0, Trafficware 2013) based on the 2010 Highway Capacity Manual methodologies at all study intersections. All LOS calculations are presented in Appendix A. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), with details provided in Appendix A.

The Town of Mammoth Lakes General Plan presents the following LOS thresholds:

- For Signalized Intersections: Total intersection LOS D or better must be maintained. Therefore, if a signalized intersection is found to operate at a total intersection LOS E or F, mitigation is required. It is assumed that this same threshold applies to roundabouts.

- For Unsignalized Intersections: In order to avoid the identification of a LOS failure for intersections that result in only a few vehicles experiencing a delay greater than 50 seconds (such as at a driveway serving a few homes that accesses onto a busy street), a LOS deficiency is not identified for all intersections with approach LOS E or F. Instead, a LOS deficiency is assumed to occur at an unsignalized intersection only if an individual minor street movement operates at LOS E or F and total minor approach delay exceeds four vehicle hours for a single lane approach and five vehicle hours for a multi-lane approach. In other words, a deficiency is found to occur if the average number of vehicles queued over the peak-hour exceeds four at a single-lane approach, or exceeds five at a multi-lane approach.

Level of Service Analysis

Traffic operations at the study intersections were assessed in terms of Level of Service (LOS) and delay. LOS analyses were performed at all of the study intersections under existing and future year scenarios, with and without the project, and the results are presented in Table 6. The results of the LOS analyses indicate that all intersections currently operate at an acceptable LOS and would continue to do so with the implementation of the proposed project although the LOS may degrade by one level under future cumulative conditions. Note the eastbound approach of Chateau Road at Old Mammoth Road does reach LOS E and F under future scenarios, but maintains an acceptable LOS with less than 4 cumulative hours of delay.

Analysis of the Need for Turn Lanes

As there are no LOS deficiencies, intersection improvements are not needed as mitigation. But turn lanes may be warranted to enhance safety by separating vehicles turning into the site from those passing by the site. Using the NCHRP 457 Guidelines, a northbound left-turn lane and a southbound right-turn lane along Old Mammoth Road into the site were evaluated. Based on the proposed volumes with the project, no turn lanes are warranted under any scenarios.

Vehicle Miles Traveled (VMT)

Existing VMT data was developed as part of the recent Mammoth Mobility Element EIR. The existing and future VMT townwide is shown on the bottom portion of Table 7. The VMT impact of the project was then assessed by calculating the average trip length for each zone, and then multiplying it by the number of trips. An additional 386 vehicle miles traveled is expected to be generated in the Town of Mammoth Lakes by this project. This VMT was then added to both the existing and future VMT to create the existing 'plus project' and future 'plus project' values. The results of this calculation can be found in Table 7. Note the increase in VMT due to the project is minimal at only approximately 0.3% of existing VMT.

MITIGATION MEASURES

No intersection mitigation measures are needed, because all intersections will operate at an acceptable LOS under their existing configurations and control. No new turn lanes are expected to be necessary along Old Mammoth Road at the site access point. Adequate traffic conditions are expected to be provided with the proposed project, so long as the final landscaping plans provide adequate drive sight distance at the site driveway.

Figure 1
Mammoth Site Map and Intersection Configuration

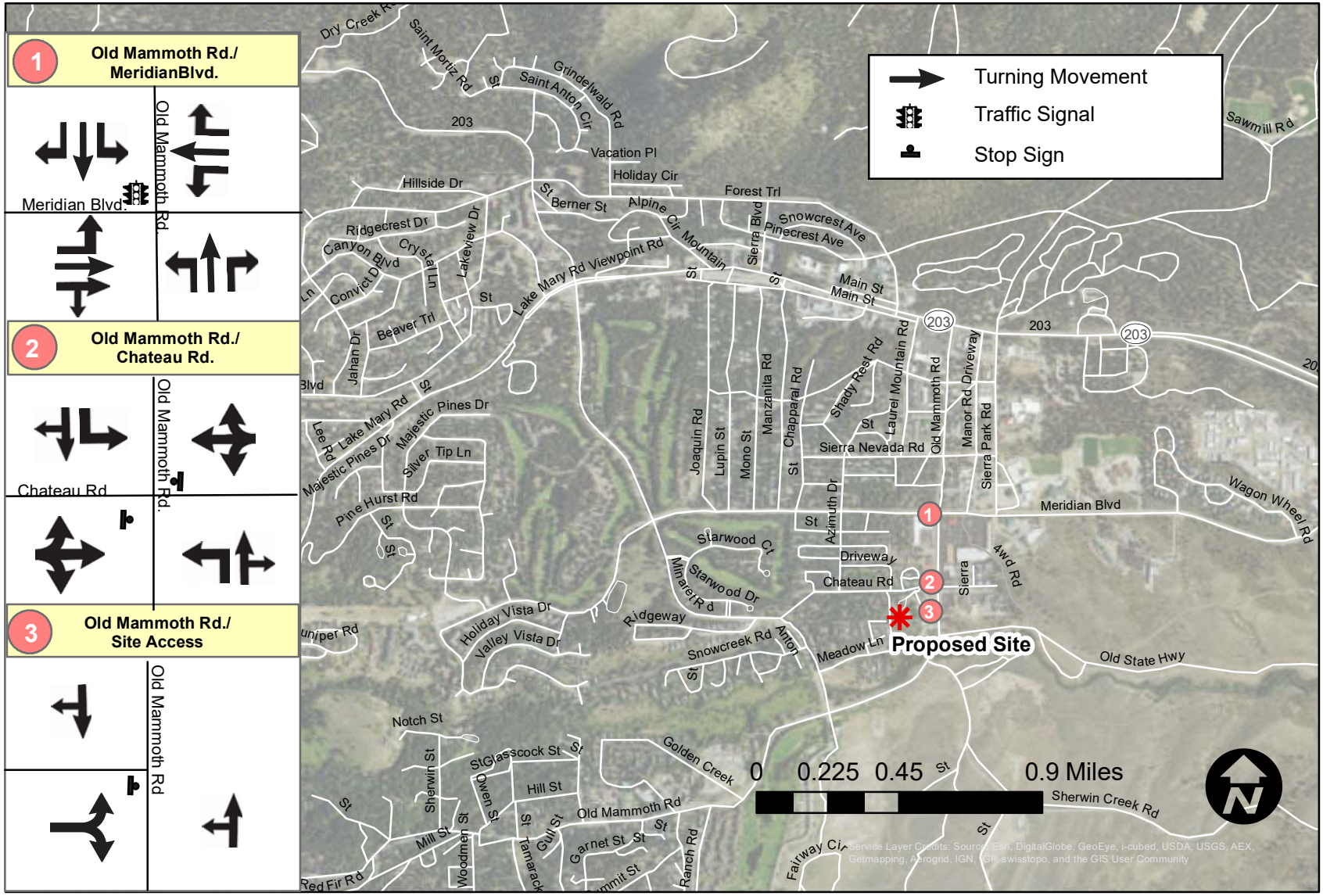

Table 1: PM Peak Hour Intersection Turning Movement Volumes

Intersection	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing No Project													
Old Mammoth Road / Meridian Blvd	128	230	48	118	295	59	188	680	112	96	365	75	2394
Old Mammoth Road / Chateau Road	11	251	5	48	300	75	37	16	11	5	11	27	797
Old Mammoth Road / Mammoth Creek Park Site Access	2	259	0	0	300	2	2	0	2	0	0	0	567
Future No Project													
Old Mammoth Road / Meridian Blvd	150	270	55	130	360	65	195	700	130	110	375	85	2625
Old Mammoth Road / Chateau Road	15	350	5	95	415	90	40	30	15	5	20	55	1135
Old Mammoth Road / Mammoth Creek Park Site Access	2	370	0	0	435	2	2	0	2	0	0	0	813
Project Net Impact													
Old Mammoth Road / Meridian Blvd	25	16	-6	-14	19	0	0	-21	29	-4	-16	-10	18
Old Mammoth Road / Chateau Road	2	39	0	0	47	-1	-2	0	2	0	0	0	87
Old Mammoth Road / Mammoth Creek Park Site Access	8	-6	0	0	-5	54	47	0	7	0	0	0	105
Existing Plus Project													
Old Mammoth Road / Meridian Blvd	153	246	42	104	314	59	188	659	141	92	349	65	2412
Old Mammoth Road / Chateau Road	13	290	5	48	347	74	35	16	13	5	11	27	884
Old Mammoth Road / Mammoth Creek Park Site Access	10	253	0	0	295	56	49	0	9	0	0	0	672
Future Plus Project													
Old Mammoth Road / Meridian Blvd	175	286	49	116	379	65	195	679	159	106	359	75	2643
Old Mammoth Road / Chateau Road	17	389	5	95	462	89	38	30	17	5	20	55	1222
Old Mammoth Road / Mammoth Creek Park Site Access	10	364	0	0	430	56	49	0	9	0	0	0	918

Note: Negative volumes reflect the shift in existing traffic associated with the existing ice rink.

Source: LSC Transportation Consultants, Inc.

TABLE 2: Mammoth Multi-Use/Community Center - Determination of Design Day

Program/Activity	Winter?	Saturday?	If Saturday, What time?	PM Peak Hour?	Frequency	Max Attendees	Include in Design Day?
ICE RINK							
Recreational Skating	Yes	Yes	2 pm -10 pm	**Yes**	Daily	300	**Yes**
Youth and Adult Hockey	Yes	Yes	9 am - 11 am	No	Daily	100	**Yes**
Ice Skating/Figure Skating Program	Yes	Yes, Get up and Go Program	4:30 pm - 5:30 pm	**Yes**	Daily	50	**Yes**
Curling Program	Yes	No	-	-	Weekly	100	No
Skate Program	Yes	No	-	-	Weekly	50	No
Ice Rental	Yes	No	-	-	Weekly	50	No
Birthday Party	Yes	Yes	9 am - 9 pm	Yes	Weekly	100	No, b/c included in Rec Skating
Community Events	Yes	No	-	-	Monthly / Occasionally	200	No
Special Programs/Events	Yes	No	-	-	Monthly / Occasionally	100	No
Hockey Tournaments	Yes	Yes	6 am to 12pm, 6 pm to 12 am	No	Monthly / Occasionally	200	No
Private Rentals	Yes	No	-	-	Monthly / Occasionally	200	No
Professional/Club/College/School Rental	Yes	No	-	-	Monthly / Occasionally	200	No
COMMUNITY CENTER							
Educational Programming	Yes	No	-	-	Weekly	100	No
Adult Introductory Fitness Classes	Yes	Yes	7 pm - 9 pm	No	Weekly	50	**Yes**
Youth Introductory Fitness Classes	Yes	No	5 pm - 7 pm	No	Weekly	50	No
Games	Yes	based on availability	4 pm - 10 pm	**Yes**	Weekly	50	**Yes**
Summer Arts Camps/Craft programs	No	-	-	-	Weekly	-	No
Training/Certification & Community Board Meetings	Yes	Yes, based on availability	8 am -6 pm	**Yes**	Weekly	50	**Yes**
Breastfeeding support	Yes	based on availability	Noon - 10 pm	Yes	Weekly	10	No
County First 5 programs	Yes	No	-	-	Weekly	30	No
Youtheatre/Rehearsal space	No	-	-	-	Weekly	100	No
Drop-in Art Programs	Yes	based on availability	7 pm - 10 pm	No	Monthly	50	**Yes**
TED Talks	Yes	based on availability	6pm - 10 pm	No	Monthly	-	No
Community and Social Gathering	Yes	based on availability	Noon - 10 pm	Yes	Monthly	100	No
Indoor Venue/Staging Area	No	based on availability	Noon - 10 pm	Yes	Monthly	200	No
Rotating Art Gallery	Yes	Yes	n/a	Yes	Monthly	n/a	No
Community Variety/Talent Show		based on availability	6pm - 10 pm	No	Monthly	200	No
Teen safe space hangout					Occasionally		No
Facility rentals for events/conferences					Occasionally		No
Movie nights					Occasionally		No

Note: **Bold** indicates the activity is included in the design day.
Source: LSC Transportation Consultatnts, Inc.

Table 3: Daily Trip Generation

Activity	Persons per day	Persons in Autos[1]	Total Vehicles[2]	Percent Drop Off /Pick up	Daily Vehicle Trips at Site Driveway		
					In	Out	Total
PROPOSED USES							
Ice Rink							
Recreational Skating	300	245	91	40%	127	127	254
Ice Skating/Figure Skating Program (Get up and Go)	50	41	15	40%	21	21	42
Youth and Adult Hockey	100	82	30	80%	42	42	84
Subtotal of Ice Skating Rink	*450*	*368*	*136*		*190*	*190*	*380*
Games	100	82	30	80%	42	42	84
Meeting or event in multipurpose rooms (2 per day)	100	82	30	40%	42	42	84
Drop-in Art Programs or Adult Fitness Class	50	41	15	20%	21	21	42
Total Proposed Uses	**700**	**573**	**211**		**295**	**295**	**590**
Total of Existing Ice Skating Rink	**450**	**368**	**136**		**190**	**190**	**380**
Net Impact of Project on Area Roadways	**250**	**205**	**75**		**105**	**105**	**210**

Note 1: Mode split includes 5% walking, 14% transit, and 81% auto.

Note 2: Assuming 2.7 persons per vehicle.

Source: LSC Transportation Consultants, Inc.

Table 4: PM Peak Hour Trip Generation

Activity	Max Persons in Peak Hour	Persons in Autos[1]	Total Vehicles[2]	Portion of trips occurring in Peak Hour		Percent Drop Off /Pick up	Peak Hour Vehicle Trips at Site Driveway		
				In	Out		In	Out	Total
PROPOSED USES									
Ice Skating Rink									
Recreational Skating	200	163	60	50%	25%	40%	36	27	63
Ice Skating/Figure Skating Program (Get up and Go)	50	41	15	50%	25%	40%	10	7	17
Subtotal of Ice Skating Rink	*250*	*204*	*75*				*46*	*34*	*80*
Games	50	41	15	50%	10%	80%	10	8	18
Meeting or event in multipurpose room (One during peak hour)	50	41	15	10%	75%	40%	6	12	18
Total Proposed Uses	**350**	**286**	**105**				**62**	**54**	**116**
Total of Existing Ice Skating Rink	**250**	**204**	**75**				**46**	**34**	**80**
Net Impact of Project on Area Roadways	**100**	**82**	**30**				**16**	**20**	**36**

Note 1: Mode split includes 5% walking, 14% transit, and 81% auto.

Note 2: Assuming 2.7 persons per vehicle.

Source: LSC Transportation Consultants, Inc.

Table 5: Mammoth - Trip Distribution

Origin	Distribution
Old Mammoth Road north of Meridian Blvd	30%
Meridian Blvd west of Old Mammoth Road	46%
Chateau Road west of Old Mammoth Road	4%
Old Mammoth Road south of Project Driveway	13%
Meridian Blvd east of Old Mammoth Road	3%
Between Chateau Road and Meridian Blvd	4%
	100%

Source: LSC Transportation Consultants, Inc.

Table 6: LOS for Study Intersections

Intersection	Traffic Control[1]	Existing Conditions Delay (sec/veh)	Existing Conditions LOS	Existing Plus Project Delay (sec/veh)	Existing Plus Project LOS	Future No Project Delay (sec/veh)	Future No Project Veh-Hrs	Future No Project LOS	Future Plus Project Delay (sec/veh)	Future Plus Project Veh-Hrs	Future Plus Project LOS
Old Mammoth Road / Meridian Blvd	Traffic Signal	30.6	C	32.9	C	34.0	-	C	36.2		D
Old Mammoth Road / Chateau Road	Stop-Control	20.1	C	22.9	C	42.5	1.0	E	52.8	1.1	F
Old Mammoth Road / Site Access Road	Stop-Control	11.6	B	11.7	B	11.5	-	B	12.9	-	B

Note 1: LOS is reported as total intersection delay for signalized intersection and worst movement/approach for unsignalized intersections and roundabouts.

Bold = LOS threshold exceeded (Note LOS threshold not exceed under any scenarios)

Source: LSC Transportation Consultants, Inc.

Table 7: Mammoth Creek Park Vehicle Miles Traveled

Origin/Destination	Average Distance (miles)	Percent of Trips to Area	Net Increase in Daily Trips	Net Increase in Daily VMT
Old Mammoth Road north of Meridian Blvd	1.6	30%	63	101
Meridian Blvd west of Old Mammoth Road	2.5	46%	97	239
Chateau Road west of Old Mammoth Road	0.8	4%	8	7
Old Mammoth Road south of Project Driveway	1.2	13%	28	34
Meridian Blvd east of Old Mammoth Road	0.7	3%	6	4
Between Chateau Road and Meridian Blvd	0.2	4%	8	2
Project Net Impact		**100%**	**210**	**387**
Townwide VMT		Existing No Project		152,844
		Future No Project		178,638
		Project Net Impact		387
		Existing Plus Project		153,231
		Future Plus Project		179,025

Source: LSC Transportation Consultants, Inc.

Appendix A

DESCRIPTIONS OF LEVELS OF SERVICE

The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with level of service A representing the best operating conditions and level of service F the worst.

Level of Service Definitions

In general, the various levels of service are defined as follows for uninterrupted flow facilities:

- **Level of service A** represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.

- **Level of service B** is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.

- **Level of service C** is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.

- **Level of Service D** represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

- **Level of service E** represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.

- **Level of service F** is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. Level of service F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes the queue to form, and level of service F is an appropriate designation for such points.

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	188	680	112	96	365	75	128	230	48	118	295	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	209	756	124	107	406	83	142	256	53	131	328	66
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	1068	175	137	533	453	178	420	357	165	406	345
Arrive On Green	0.14	0.35	0.35	0.08	0.29	0.29	0.10	0.23	0.23	0.09	0.22	0.22
Sat Flow, veh/h	1774	3045	499	1774	1863	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	209	439	441	107	406	83	142	256	53	131	328	66
Grp Sat Flow(s),veh/h/ln	1774	1770	1775	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	8.1	15.2	15.2	4.2	14.1	2.8	5.6	8.8	1.9	5.1	11.9	2.4
Cycle Q Clear(g_c), s	8.1	15.2	15.2	4.2	14.1	2.8	5.6	8.8	1.9	5.1	11.9	2.4
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	621	622	137	533	453	178	420	357	165	406	345
V/C Ratio(X)	0.83	0.71	0.71	0.78	0.76	0.18	0.80	0.61	0.15	0.79	0.81	0.19
Avail Cap(c_a), veh/h	297	683	685	192	609	517	222	499	424	197	472	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	19.9	19.9	32.2	23.1	19.1	31.2	24.7	22.0	31.5	26.4	22.7
Incr Delay (d2), s/veh	14.7	3.3	3.3	10.8	5.4	0.3	13.5	2.0	0.3	15.5	9.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	7.9	8.0	2.5	8.0	1.2	3.4	4.7	0.8	3.2	7.2	1.1
LnGrp Delay(d),s/veh	44.3	23.2	23.2	42.9	28.5	19.3	44.7	26.7	22.3	47.0	35.9	23.0
LnGrp LOS	D	C	C	D	C	B	D	C	C	D	D	C
Approach Vol, veh/h		1089			596			451			525	
Approach Delay, s/veh		27.3			29.8			31.9			37.0	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	29.8	11.2	20.4	14.2	25.2	10.7	20.9
Change Period (Y+Rc), s	4.1	4.9	4.1	4.9	4.1	4.9	4.1	4.9
Max Green Setting (Gmax), s	7.7	27.4	8.9	18.0	11.9	23.2	7.9	19.0
Max Q Clear Time (g_c+I1), s	6.2	17.2	7.6	13.9	10.1	16.1	7.1	10.8
Green Ext Time (p_c), s	0.0	5.4	0.0	1.6	0.1	4.2	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	37	16	11	5	11	27	11	251	5	48	300	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	18	12	6	12	30	12	279	6	53	333	83

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	809	791	375	803	829	282	417	0	0	284	0	0
Stage 1	482	482	-	306	306	-	-	-	-	-	-	-
Stage 2	327	309	-	497	523	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	299	322	671	302	306	757	1142	-	-	1278	-	-
Stage 1	565	553	-	704	662	-	-	-	-	-	-	-
Stage 2	686	660	-	555	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	267	305	671	272	290	757	1142	-	-	1278	-	-
Mov Cap-2 Maneuver	267	305	-	272	290	-	-	-	-	-	-	-
Stage 1	559	530	-	697	655	-	-	-	-	-	-	-
Stage 2	640	653	-	505	508	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	13.6	0.3	0.9
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1142	-	-	309	467	1278	-	-
HCM Lane V/C Ratio	0.011	-	-	0.23	0.102	0.042	-	-
HCM Control Delay (s)	8.2	-	-	20.1	13.6	7.9	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.3	0.1	-	-

Existing No Project

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	2	2	2	259	300	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	2	288	333	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	626	334	336	0	-	0
Stage 1	334	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	448	708	1223	-	-	-
Stage 1	725	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	447	708	1223	-	-	-
Mov Cap-2 Maneuver	447	-	-	-	-	-
Stage 1	725	-	-	-	-	-
Stage 2	756	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1223	-	548	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	7.9	0	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	188	659	141	92	349	65	153	246	42	104	314	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	209	732	157	102	388	72	170	273	47	116	349	66
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	992	213	131	512	435	208	478	406	148	415	353
Arrive On Green	0.14	0.34	0.34	0.07	0.27	0.27	0.12	0.26	0.26	0.08	0.22	0.22
Sat Flow, veh/h	1774	2901	622	1774	1863	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	209	446	443	102	388	72	170	273	47	116	349	66
Grp Sat Flow(s),veh/h/ln	1774	1770	1753	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	8.4	16.3	16.4	4.2	14.1	2.5	6.9	9.4	1.7	4.7	13.2	2.5
Cycle Q Clear(g_c), s	8.4	16.3	16.4	4.2	14.1	2.5	6.9	9.4	1.7	4.7	13.2	2.5
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	250	605	600	131	512	435	208	478	406	148	415	353
V/C Ratio(X)	0.84	0.74	0.74	0.78	0.76	0.17	0.82	0.57	0.12	0.79	0.84	0.19
Avail Cap(c_a), veh/h	287	659	652	186	587	499	214	481	409	190	455	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	21.3	21.3	33.5	24.5	20.3	31.7	23.8	21.0	33.1	27.4	23.2
Incr Delay (d2), s/veh	16.3	4.3	4.4	10.8	5.4	0.2	20.4	1.9	0.2	13.5	13.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	8.7	8.6	2.4	8.0	1.1	4.5	5.1	0.7	2.9	8.3	1.1
LnGrp Delay(d),s/veh	47.1	25.6	25.7	44.3	29.9	20.5	52.2	25.7	21.1	46.6	40.3	23.5
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	D	C
Approach Vol, veh/h		1098			562			490			531	
Approach Delay, s/veh		29.7			31.3			34.5			39.6	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	30.1	12.7	21.3	14.5	25.1	10.2	23.8
Change Period (Y+Rc), s	4.1	4.9	4.1	4.9	4.1	4.9	4.1	4.9
Max Green Setting (Gmax), s	7.7	27.4	8.9	18.0	11.9	23.2	7.9	19.0
Max Q Clear Time (g_c+I1), s	6.2	18.4	8.9	15.2	10.4	16.1	6.7	11.4
Green Ext Time (p_c), s	0.0	5.0	0.0	1.2	0.1	4.2	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	16	13	5	11	27	13	290	5	48	347	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	18	14	6	12	30	14	322	6	53	386	82

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	908	890	427	903	928	325	468	0	0	328	0	0
Stage 1	533	533	-	354	354	-	-	-	-	-	-	-
Stage 2	375	357	-	549	574	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	256	282	628	258	268	716	1094	-	-	1232	-	-
Stage 1	531	525	-	663	630	-	-	-	-	-	-	-
Stage 2	646	628	-	520	503	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	226	266	628	229	253	716	1094	-	-	1232	-	-
Mov Cap-2 Maneuver	226	266	-	229	253	-	-	-	-	-	-	-
Stage 1	524	502	-	655	622	-	-	-	-	-	-	-
Stage 2	599	620	-	469	481	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.9	14.7	0.4	0.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1094	-	-	272	417	1232	-	-
HCM Lane V/C Ratio	0.013	-	-	0.261	0.115	0.043	-	-
HCM Control Delay (s)	8.3	-	-	22.9	14.7	8.1	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	49	9	10	253	296	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	10	11	281	329	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	663	360	391	0	-	0
Stage 1	360	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	426	684	1168	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	422	684	1168	-	-	-
Mov Cap-2 Maneuver	591	-	-	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1168	-	604	-	-
HCM Lane V/C Ratio	0.01	-	0.107	-	-
HCM Control Delay (s)	8.1	-	11.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

HCM 2010 Signalized Intersection Summary
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	195	700	130	110	375	85	150	270	55	130	360	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	205	737	137	116	395	89	158	284	58	137	379	68
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	970	180	148	503	427	195	468	398	172	444	378
Arrive On Green	0.14	0.33	0.33	0.08	0.27	0.27	0.11	0.25	0.25	0.10	0.24	0.24
Sat Flow, veh/h	1774	2981	554	1774	1863	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	205	437	437	116	395	89	158	284	58	137	379	68
Grp Sat Flow(s),veh/h/ln	1774	1770	1765	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	8.3	16.4	16.4	4.7	14.5	3.2	6.4	10.0	2.1	5.6	14.4	2.5
Cycle Q Clear(g_c), s	8.3	16.4	16.4	4.7	14.5	3.2	6.4	10.0	2.1	5.6	14.4	2.5
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	246	576	574	148	503	427	195	468	398	172	444	378
V/C Ratio(X)	0.83	0.76	0.76	0.79	0.79	0.21	0.81	0.61	0.15	0.79	0.85	0.18
Avail Cap(c_a), veh/h	285	610	608	204	556	473	213	470	400	223	481	408
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	22.4	22.4	33.3	25.0	20.9	32.2	24.5	21.5	32.7	27.0	22.4
Incr Delay (d2), s/veh	15.9	5.6	5.6	11.1	7.2	0.3	18.4	2.6	0.2	12.6	13.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	8.9	8.9	2.8	8.5	1.4	4.2	5.5	0.9	3.3	9.1	1.1
LnGrp Delay(d),s/veh	47.0	28.0	28.0	44.4	32.2	21.2	50.6	27.0	21.8	45.3	40.6	22.7
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	D	C
Approach Vol, veh/h		1079			600			500			584	
Approach Delay, s/veh		31.6			32.9			33.9			39.6	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	29.0	12.2	22.6	14.4	24.9	11.3	23.5
Change Period (Y+Rc), s	4.1	4.9	4.1	4.9	4.1	4.9	4.1	4.9
Max Green Setting (Gmax), s	8.5	25.5	8.9	19.1	11.9	22.1	9.3	18.7
Max Q Clear Time (g_c+I1), s	6.7	18.4	8.4	16.4	10.3	16.5	7.6	12.0
Green Ext Time (p_c), s	0.0	4.2	0.0	1.3	0.1	3.4	0.1	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	30	15	5	20	55	15	350	5	95	415	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	32	16	5	21	58	16	368	5	100	437	95

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1126	1089	484	1111	1135	371	532	0	0	374	0	0
Stage 1	684	684	-	403	403	-	-	-	-	-	-	-
Stage 2	442	405	-	708	732	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	182	215	583	186	202	675	1036	-	-	1184	-	-
Stage 1	439	449	-	624	600	-	-	-	-	-	-	-
Stage 2	594	598	-	426	427	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	140	194	583	147	182	675	1036	-	-	1184	-	-
Mov Cap-2 Maneuver	140	194	-	147	182	-	-	-	-	-	-	-
Stage 1	432	411	-	614	591	-	-	-	-	-	-	-
Stage 2	516	589	-	350	391	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	42.5	18.3	0.3	1.3
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1036	-	-	182	355	1184	-	-
HCM Lane V/C Ratio	0.015	-	-	0.492	0.237	0.084	-	-
HCM Control Delay (s)	8.5	-	-	42.5	18.3	8.3	-	-
HCM Lane LOS	A	-	-	E	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2.4	0.9	0.3	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	2	2	2	370	435	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	2	389	458	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	853	459	460	0	-	0
Stage 1	459	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	330	602	1101	-	-	-
Stage 1	636	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	329	602	1101	-	-	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	636	-	-	-	-	-
Stage 2	680	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1101	-	557	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	8.3	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	195	679	159	106	359	75	175	286	49	116	379	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	205	715	167	112	378	79	184	301	52	122	399	68
Adj No. of Lanes	1	2	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	914	213	143	490	416	211	505	429	155	447	380
Arrive On Green	0.14	0.32	0.32	0.08	0.26	0.26	0.12	0.27	0.27	0.09	0.24	0.24
Sat Flow, veh/h	1774	2850	665	1774	1863	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	205	444	438	112	378	79	184	301	52	122	399	68
Grp Sat Flow(s),veh/h/ln	1774	1770	1745	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	8.4	17.1	17.1	4.6	14.1	2.9	7.6	10.5	1.9	5.1	15.5	2.6
Cycle Q Clear(g_c), s	8.4	17.1	17.1	4.6	14.1	2.9	7.6	10.5	1.9	5.1	15.5	2.6
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	568	560	143	490	416	211	505	429	155	447	380
V/C Ratio(X)	0.84	0.78	0.78	0.78	0.77	0.19	0.87	0.60	0.12	0.79	0.89	0.18
Avail Cap(c_a), veh/h	282	602	594	201	549	467	211	505	429	220	475	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	23.1	23.1	33.8	25.6	21.4	32.5	23.7	20.6	33.5	27.6	22.6
Incr Delay (d2), s/veh	16.5	6.6	6.7	10.6	6.5	0.3	30.3	2.2	0.2	9.8	18.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	9.3	9.2	2.7	8.1	1.3	5.5	5.7	0.8	2.9	10.3	1.1
LnGrp Delay(d),s/veh	48.0	29.7	29.8	44.4	32.1	21.7	62.8	25.9	20.7	43.3	46.2	22.9
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	D	C
Approach Vol, veh/h		1087			569			537			589	
Approach Delay, s/veh		33.2			33.1			38.1			42.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	28.9	13.0	22.9	14.5	24.6	10.7	25.2
Change Period (Y+Rc), s	4.1	4.9	4.1	4.9	4.1	4.9	4.1	4.9
Max Green Setting (Gmax), s	8.5	25.5	8.9	19.1	11.9	22.1	9.3	18.7
Max Q Clear Time (g_c+I1), s	6.6	19.1	9.6	17.5	10.4	16.1	7.1	12.5
Green Ext Time (p_c), s	0.0	3.8	0.0	0.5	0.1	3.6	0.1	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	36.2
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	38	30	17	5	20	55	17	389	5	95	462	89
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	32	18	5	21	58	18	409	5	100	486	94

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1220	1184	533	1206	1228	412	580	0	0	415	0	0
Stage 1	733	733	-	448	448	-	-	-	-	-	-	-
Stage 2	487	451	-	758	780	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	157	189	547	160	178	640	994	-	-	1144	-	-
Stage 1	412	426	-	590	573	-	-	-	-	-	-	-
Stage 2	562	571	-	399	406	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	118	169	547	122	159	640	994	-	-	1144	-	-
Mov Cap-2 Maneuver	118	169	-	122	159	-	-	-	-	-	-	-
Stage 1	405	389	-	579	563	-	-	-	-	-	-	-
Stage 2	483	561	-	324	371	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52.8	20.4	0.4	1.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	994	-	-	160	317	1144	-	-
HCM Lane V/C Ratio	0.018	-	-	0.559	0.266	0.087	-	-
HCM Control Delay (s)	8.7	-	-	52.8	20.4	8.4	-	-
HCM Lane LOS	A	-	-	F	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.9	1	0.3	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	49	9	10	364	431	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	9	11	383	454	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	887	483	513	0	-	0
Stage 1	483	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	315	584	1052	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	584	1052	-	-	-
Mov Cap-2 Maneuver	504	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	515	-	-
HCM Lane V/C Ratio	0.01	-	0.119	-	-
HCM Control Delay (s)	8.5	-	12.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

11.5 Air Quality/ Greenhouse Gas Emissions Data

Parenthetical CALEEMOD Assumptions
For: Mammoth Creek Park West New Community Multi-Use Facilities Project
December 2016

PHASE I

- 30,000 square feet of ice skating rink/RecZone.

CONSTRUCTION

Demolition (2017)

- 22 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Concrete/Industrial Saws	4
3	Excavators	4
2	Rubber Tired Dozers	2

Grading (2017)

- 6,500 cubic yards of soil export.
- 22 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Excavators	4
1	Graders	4
1	Rubber Tired Dozers	4
3	Tractors/Loaders/Backhoes	4

Building Construction (2017)

- 110 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Cranes	4
3	Forklifts	4
1	Generator Sets	4
3	Tractors/Loaders/Backhoes	4
1	Welders	4

Architectural Coating (2017)

- 21 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Air Compressors	6

Multi-Use Facilities Project - Phase I Construction

Great Basin Valleys Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	30,000.00	User Defined Unit	4.90	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Characteristics

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment -

Demolition -

Grading - 6,500 yards of excavation and export, site acreage

Vehicle Trips - Construction run only

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Architectural Coating -

Area Coating -

Energy Use -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	18.00	21.00
tblConstructionPhase	NumDays	230.00	110.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	PhaseEndDate	1/31/2018	10/1/2017
tblConstructionPhase	PhaseEndDate	1/2/2018	11/15/2017
tblConstructionPhase	PhaseEndDate	6/30/2017	7/1/2017
tblConstructionPhase	PhaseEndDate	8/1/2017	7/8/2017
tblConstructionPhase	PhaseStartDate	1/3/2018	9/1/2017
tblConstructionPhase	PhaseStartDate	8/2/2017	6/15/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/8/2017
tblGrading	AcresOfGrading	5.50	4.90
tblGrading	MaterialExported	0.00	6,500.00
tblLandUse	BuildingSpaceSquareFeet	0.00	30,000.00
tblLandUse	LandUseSquareFeet	0.00	30,000.00
tblLandUse	LotAcreage	0.00	4.90
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	ConstructionPhaseStartDate	6/1/2017 2:32:03 PM	6/1/2017 12:00:00 AM
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	813.00	812.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	35.3306	60.0071	34.0463	0.0838	4.5076	2.7364	7.2440	2.0176	2.5511	4.5687	0.0000	8,561.4342	8,561.4342	1.4533	0.0000	8,597.7679
Maximum	**35.3306**	**60.0071**	**34.0463**	**0.0838**	**4.5076**	**2.7364**	**7.2440**	**2.0176**	**2.5511**	**4.5687**	**0.0000**	**8,561.4342**	**8,561.4342**	**1.4533**	**0.0000**	**8,597.7679**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	35.3306	60.0071	34.0463	0.0838	2.3727	2.7364	5.1091	0.9896	2.5511	3.5407	0.0000	8,561.4342	8,561.4342	1.4533	0.0000	8,597.7679
Maximum	**35.3306**	**60.0071**	**34.0463**	**0.0838**	**2.3727**	**2.7364**	**5.1091**	**0.9896**	**2.5511**	**3.5407**	**0.0000**	**8,561.4342**	**8,561.4342**	**1.4533**	**0.0000**	**8,597.7679**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**47.36**	**0.00**	**29.47**	**50.95**	**0.00**	**22.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**	**0.0000**	**7.0160**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**	**0.0000**	**7.0160**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	7/1/2017	5	22	
2	Grading	Grading	6/8/2017	7/8/2017	5	22	
3	Building Construction	Building Construction	6/15/2017	11/15/2017	5	110	
4	Architectural Coating	Architectural Coating	9/1/2017	10/1/2017	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	4.00	158	0.38
Demolition	Rubber Tired Dozers	2	2.00	247	0.40
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	3	4.00	89	0.20
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	812.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	13.00	5.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4360	14.6904	9.1928	0.0151		0.7696	0.7696		0.7203	0.7203		1,525.1600	1,525.1600	0.4026		1,535.2245
Total	**1.4360**	**14.6904**	**9.1928**	**0.0151**	**0.0000**	**0.7696**	**0.7696**	**0.0000**	**0.7203**	**0.7203**		**1,525.1600**	**1,525.1600**	**0.4026**		**1,535.2245**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4360	14.6904	9.1928	0.0151		0.7696	0.7696		0.7203	0.7203	0.0000	1,525.1600	1,525.1600	0.4026		1,535.2245
Total	**1.4360**	**14.6904**	**9.1928**	**0.0151**	**0.0000**	**0.7696**	**0.7696**	**0.0000**	**0.7203**	**0.7203**	**0.0000**	**1,525.1600**	**1,525.1600**	**0.4026**		**1,535.2245**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2807	0.0000	3.2807	1.6857	0.0000	1.6857			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176		1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**3.2807**	**0.8887**	**4.1694**	**1.6857**	**0.8176**	**2.5033**		**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5348	12.9815	2.6327	0.0319	0.6470	0.1077	0.7547	0.1775	0.1030	0.2805		3,345.4422	3,345.4422	0.1803		3,349.9492
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		208.0719	208.0719	0.0122		208.3780
Total	**0.7067**	**13.1073**	**3.9041**	**0.0340**	**0.8386**	**0.1093**	**0.9479**	**0.2283**	**0.1045**	**0.3328**		**3,553.5141**	**3,553.5141**	**0.1925**		**3,558.3271**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.4025	0.0000	1.4025	0.7206	0.0000	0.7206			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176	0.0000	1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**1.4025**	**0.8887**	**2.2912**	**0.7206**	**0.8176**	**1.5383**	**0.0000**	**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5348	12.9815	2.6327	0.0319	0.5201	0.1077	0.6278	0.1463	0.1030	0.2494		3,345.4422	3,345.4422	0.1803		3,349.9492
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		208.0719	208.0719	0.0122		208.3780
Total	**0.7067**	**13.1073**	**3.9041**	**0.0340**	**0.6684**	**0.1093**	**0.7777**	**0.1865**	**0.1045**	**0.2910**		**3,553.5141**	**3,553.5141**	**0.1925**		**3,558.3271**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992		1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**		**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0496	0.6917	0.3077	1.4700e-003	0.0307	7.1100e-003	0.0378	8.8300e-003	6.8000e-003	0.0156		153.3639	153.3639	0.0138		153.7100
Worker	0.1490	0.1090	1.1019	1.8200e-003	0.1661	1.3700e-003	0.1674	0.0440	1.2700e-003	0.0453		180.3290	180.3290	0.0106		180.5942
Total	**0.1986**	**0.8007**	**1.4097**	**3.2900e-003**	**0.1967**	**8.4800e-003**	**0.2052**	**0.0529**	**8.0700e-003**	**0.0609**		**333.6929**	**333.6929**	**0.0245**		**334.3042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992	0.0000	1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**	**0.0000**	**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0496	0.6917	0.3077	1.4700e-003	0.0250	7.1100e-003	0.0321	7.4400e-003	6.8000e-003	0.0142		153.3639	153.3639	0.0138		153.7100
Worker	0.1490	0.1090	1.1019	1.8200e-003	0.1285	1.3700e-003	0.1299	0.0348	1.2700e-003	0.0361		180.3290	180.3290	0.0106		180.5942
Total	**0.1986**	**0.8007**	**1.4097**	**3.2900e-003**	**0.1535**	**8.4800e-003**	**0.1620**	**0.0423**	**8.0700e-003**	**0.0503**		**333.6929**	**333.6929**	**0.0245**		**334.3042**

3.5 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1071					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.1909
Total	**33.4395**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.1909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0344	0.0252	0.2543	4.2000e-004	0.0383	3.2000e-004	0.0386	0.0102	2.9000e-004	0.0105		41.6144	41.6144	2.4500e-003		41.6756
Total	**0.0344**	**0.0252**	**0.2543**	**4.2000e-004**	**0.0383**	**3.2000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**41.6144**	**41.6144**	**2.4500e-003**		**41.6756**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1071					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.1909
Total	**33.4395**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.1909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0344	0.0252	0.2543	4.2000e-004	0.0297	3.2000e-004	0.0300	8.0400e-003	2.9000e-004	8.3300e-003		41.6144	41.6144	2.4500e-003		41.6756
Total	**0.0344**	**0.0252**	**0.2543**	**4.2000e-004**	**0.0297**	**3.2000e-004**	**0.0300**	**8.0400e-003**	**2.9000e-004**	**8.3300e-003**		**41.6144**	**41.6144**	**2.4500e-003**		**41.6756**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Unmitigated	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2968	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**		**7.0160**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2968	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**		**7.0160**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Phase I Construction

Great Basin Valleys Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	30,000.00	User Defined Unit	4.90	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Characteristics

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment -

Demolition -

Grading - 6,500 yards of excavation and export, site acreage

Vehicle Trips - Construction run only

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Architectural Coating -

Area Coating -

Energy Use -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	18.00	21.00
tblConstructionPhase	NumDays	230.00	110.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	PhaseEndDate	1/31/2018	10/1/2017
tblConstructionPhase	PhaseEndDate	1/2/2018	11/15/2017
tblConstructionPhase	PhaseEndDate	6/30/2017	7/1/2017
tblConstructionPhase	PhaseEndDate	8/1/2017	7/8/2017
tblConstructionPhase	PhaseStartDate	1/3/2018	9/1/2017
tblConstructionPhase	PhaseStartDate	8/2/2017	6/15/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/8/2017
tblGrading	AcresOfGrading	5.50	4.90
tblGrading	MaterialExported	0.00	6,500.00
tblLandUse	BuildingSpaceSquareFeet	0.00	30,000.00
tblLandUse	LandUseSquareFeet	0.00	30,000.00
tblLandUse	LotAcreage	0.00	4.90
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	ConstructionPhaseStartDate	6/1/2017 2:32:03 PM	6/1/2017 12:00:00 AM
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	813.00	812.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	35.3856	59.9196	34.4987	0.0829	4.5076	2.7435	7.2511	2.0176	2.5579	4.5755	0.0000	8,466.7631	8,466.7631	1.4722	0.0000	8,503.5672
Maximum	**35.3856**	**59.9196**	**34.4987**	**0.0829**	**4.5076**	**2.7435**	**7.2511**	**2.0176**	**2.5579**	**4.5755**	**0.0000**	**8,466.7631**	**8,466.7631**	**1.4722**	**0.0000**	**8,503.5672**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	35.3856	59.9196	34.4987	0.0829	2.3727	2.7435	5.1162	0.9896	2.5579	3.5475	0.0000	8,466.7631	8,466.7631	1.4722	0.0000	8,503.5672
Maximum	**35.3856**	**59.9196**	**34.4987**	**0.0829**	**2.3727**	**2.7435**	**5.1162**	**0.9896**	**2.5579**	**3.5475**	**0.0000**	**8,466.7631**	**8,466.7631**	**1.4722**	**0.0000**	**8,503.5672**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**47.36**	**0.00**	**29.44**	**50.95**	**0.00**	**22.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**	**0.0000**	**7.0160**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**	**0.0000**	**7.0160**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	7/1/2017	5	22	
2	Grading	Grading	6/8/2017	7/8/2017	5	22	
3	Building Construction	Building Construction	6/15/2017	11/15/2017	5	110	
4	Architectural Coating	Architectural Coating	9/1/2017	10/1/2017	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	4.00	158	0.38
Demolition	Rubber Tired Dozers	2	2.00	247	0.40
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	3	4.00	89	0.20
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	812.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	13.00	5.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4360	14.6904	9.1928	0.0151		0.7696	0.7696		0.7203	0.7203		1,525.1600	1,525.1600	0.4026		1,535.2245
Total	**1.4360**	**14.6904**	**9.1928**	**0.0151**	**0.0000**	**0.7696**	**0.7696**	**0.0000**	**0.7203**	**0.7203**		**1,525.1600**	**1,525.1600**	**0.4026**		**1,535.2245**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.4360	14.6904	9.1928	0.0151		0.7696	0.7696		0.7203	0.7203	0.0000	1,525.1600	1,525.1600	0.4026		1,535.2245
Total	**1.4360**	**14.6904**	**9.1928**	**0.0151**	**0.0000**	**0.7696**	**0.7696**	**0.0000**	**0.7203**	**0.7203**	**0.0000**	**1,525.1600**	**1,525.1600**	**0.4026**		**1,535.2245**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2807	0.0000	3.2807	1.6857	0.0000	1.6857			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176		1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**3.2807**	**0.8887**	**4.1694**	**1.6857**	**0.8176**	**2.5033**		**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5619	12.8901	3.0372	0.0311	0.6470	0.1143	0.7613	0.1775	0.1094	0.2869		3,258.3020	3,258.3020	0.1978		3,263.2468
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		207.5267	207.5267	0.0123		207.8336
Total	**0.7815**	**13.0208**	**4.3146**	**0.0332**	**0.8386**	**0.1159**	**0.9545**	**0.2283**	**0.1108**	**0.3391**		**3,465.8286**	**3,465.8286**	**0.2101**		**3,471.0804**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.4025	0.0000	1.4025	0.7206	0.0000	0.7206			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176	0.0000	1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**1.4025**	**0.8887**	**2.2912**	**0.7206**	**0.8176**	**1.5383**	**0.0000**	**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5619	12.8901	3.0372	0.0311	0.5201	0.1143	0.6345	0.1463	0.1094	0.2557		3,258.3020	3,258.3020	0.1978		3,263.2468
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		207.5267	207.5267	0.0123		207.8336
Total	**0.7815**	**13.0208**	**4.3146**	**0.0332**	**0.6684**	**0.1159**	**0.7843**	**0.1865**	**0.1108**	**0.2974**		**3,465.8286**	**3,465.8286**	**0.2101**		**3,471.0804**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992		1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**		**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0536	0.6815	0.3384	1.4200e-003	0.0307	7.5700e-003	0.0382	8.8300e-003	7.2400e-003	0.0161		147.3960	147.3960	0.0150		147.7721
Worker	0.1904	0.1133	1.1072	1.8100e-003	0.1661	1.3700e-003	0.1674	0.0440	1.2700e-003	0.0453		179.8564	179.8564	0.0106		180.1224
Total	**0.2440**	**0.7948**	**1.4455**	**3.2300e-003**	**0.1967**	**8.9400e-003**	**0.2057**	**0.0529**	**8.5100e-003**	**0.0614**		**327.2525**	**327.2525**	**0.0257**		**327.8946**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992	0.0000	1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**	**0.0000**	**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0536	0.6815	0.3384	1.4200e-003	0.0250	7.5700e-003	0.0326	7.4400e-003	7.2400e-003	0.0147		147.3960	147.3960	0.0150		147.7721
Worker	0.1904	0.1133	1.1072	1.8100e-003	0.1285	1.3700e-003	0.1299	0.0348	1.2700e-003	0.0361		179.8564	179.8564	0.0106		180.1224
Total	**0.2440**	**0.7948**	**1.4455**	**3.2300e-003**	**0.1535**	**8.9400e-003**	**0.1625**	**0.0423**	**8.5100e-003**	**0.0508**		**327.2525**	**327.2525**	**0.0257**		**327.8946**

3.5 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1071					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.1909
Total	**33.4395**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.1909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0439	0.0261	0.2555	4.2000e-004	0.0383	3.2000e-004	0.0386	0.0102	2.9000e-004	0.0105		41.5053	41.5053	2.4600e-003		41.5667
Total	**0.0439**	**0.0261**	**0.2555**	**4.2000e-004**	**0.0383**	**3.2000e-004**	**0.0386**	**0.0102**	**2.9000e-004**	**0.0105**		**41.5053**	**41.5053**	**2.4600e-003**		**41.5667**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.1071					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.1909
Total	**33.4395**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.1909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0439	0.0261	0.2555	4.2000e-004	0.0297	3.2000e-004	0.0300	8.0400e-003	2.9000e-004	8.3300e-003		41.5053	41.5053	2.4600e-003		41.5667
Total	**0.0439**	**0.0261**	**0.2555**	**4.2000e-004**	**0.0297**	**3.2000e-004**	**0.0300**	**8.0400e-003**	**2.9000e-004**	**8.3300e-003**		**41.5053**	**41.5053**	**2.4600e-003**		**41.5667**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Unmitigated	1.1293	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2968	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**		**7.0160**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2968	0.0291	3.1053	2.3000e-004		0.0112	0.0112		0.0112	0.0112		6.5656	6.5656	0.0180		7.0160
Total	**1.1293**	**0.0291**	**3.1053**	**2.3000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**		**6.5656**	**6.5656**	**0.0180**		**7.0160**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Phase I Construction

Great Basin Valleys Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	30,000.00	User Defined Unit	4.90	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Characteristics

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment - Phase I and Phase II construction concurrently

Off-road Equipment -

Demolition -

Grading - 6,500 yards of excavation and export, site acreage

Vehicle Trips - Construction run only

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Architectural Coating -

Area Coating -

Energy Use -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	18.00	21.00
tblConstructionPhase	NumDays	230.00	110.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	PhaseEndDate	1/31/2018	10/1/2017
tblConstructionPhase	PhaseEndDate	1/2/2018	11/15/2017
tblConstructionPhase	PhaseEndDate	6/30/2017	7/1/2017
tblConstructionPhase	PhaseEndDate	8/1/2017	7/8/2017
tblConstructionPhase	PhaseStartDate	1/3/2018	9/1/2017
tblConstructionPhase	PhaseStartDate	8/2/2017	6/15/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/8/2017
tblGrading	AcresOfGrading	5.50	4.90
tblGrading	MaterialExported	0.00	6,500.00
tblLandUse	BuildingSpaceSquareFeet	0.00	30,000.00
tblLandUse	LandUseSquareFeet	0.00	30,000.00
tblLandUse	LotAcreage	0.00	4.90
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	ConstructionPhaseStartDate	6/1/2017 2:32:03 PM	6/1/2017 12:00:00 AM
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	813.00	812.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4965	1.3538	0.8920	1.7200e-003	0.0580	0.0745	0.1325	0.0245	0.0698	0.0943	0.0000	157.5427	157.5427	0.0302	0.0000	158.2967
Maximum	**0.4965**	**1.3538**	**0.8920**	**1.7200e-003**	**0.0580**	**0.0745**	**0.1325**	**0.0245**	**0.0698**	**0.0943**	**0.0000**	**157.5427**	**157.5427**	**0.0302**	**0.0000**	**158.2967**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4965	1.3538	0.8920	1.7200e-003	0.0327	0.0745	0.1072	0.0127	0.0698	0.0826	0.0000	157.5426	157.5426	0.0302	0.0000	158.2965
Maximum	**0.4965**	**1.3538**	**0.8920**	**1.7200e-003**	**0.0327**	**0.0745**	**0.1072**	**0.0127**	**0.0698**	**0.0826**	**0.0000**	**157.5426**	**157.5426**	**0.0302**	**0.0000**	**158.2965**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.65**	**0.00**	**19.10**	**48.08**	**0.00**	**12.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2017**	**8-31-2017**	1.0129	1.0129
2	**9-1-2017**	**9-30-2017**	0.5644	0.5644
		Highest	1.0129	1.0129

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1786	2.6200e-003	0.2795	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	0.5361	0.5361	1.4700e-003	0.0000	0.5728
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1786**	**2.6200e-003**	**0.2795**	**2.0000e-005**	**0.0000**	**1.0100e-003**	**1.0100e-003**	**0.0000**	**1.0100e-003**	**1.0100e-003**	**0.0000**	**0.5361**	**0.5361**	**1.4700e-003**	**0.0000**	**0.5728**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1786	2.6200e-003	0.2795	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	0.5361	0.5361	1.4700e-003	0.0000	0.5728
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1786**	**2.6200e-003**	**0.2795**	**2.0000e-005**	**0.0000**	**1.0100e-003**	**1.0100e-003**	**0.0000**	**1.0100e-003**	**1.0100e-003**	**0.0000**	**0.5361**	**0.5361**	**1.4700e-003**	**0.0000**	**0.5728**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	7/1/2017	5	22	
2	Grading	Grading	6/8/2017	7/8/2017	5	22	
3	Building Construction	Building Construction	6/15/2017	11/15/2017	5	110	
4	Architectural Coating	Architectural Coating	9/1/2017	10/1/2017	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	4.00	158	0.38
Demolition	Rubber Tired Dozers	2	2.00	247	0.40
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	3	4.00	89	0.20
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	4.00	97	0.37

Building Construction	Welders	1	4.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	812.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	13.00	5.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1616	0.1011	1.7000e-004		8.4700e-003	8.4700e-003		7.9200e-003	7.9200e-003	0.0000	15.2196	15.2196	4.0200e-003	0.0000	15.3201
Total	**0.0158**	**0.1616**	**0.1011**	**1.7000e-004**	**0.0000**	**8.4700e-003**	**8.4700e-003**	**0.0000**	**7.9200e-003**	**7.9200e-003**	**0.0000**	**15.2196**	**15.2196**	**4.0200e-003**	**0.0000**	**15.3201**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	2.0400e-003	2.0000e-005	2.0600e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**1.9300e-003**	**1.6300e-003**	**0.0140**	**2.0000e-005**	**2.0400e-003**	**2.0000e-005**	**2.0600e-003**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**0.0000**	**1.9904**	**1.9904**	**1.2000e-004**	**0.0000**	**1.9933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1616	0.1011	1.7000e-004		8.4700e-003	8.4700e-003		7.9200e-003	7.9200e-003	0.0000	15.2196	15.2196	4.0200e-003	0.0000	15.3200
Total	**0.0158**	**0.1616**	**0.1011**	**1.7000e-004**	**0.0000**	**8.4700e-003**	**8.4700e-003**	**0.0000**	**7.9200e-003**	**7.9200e-003**	**0.0000**	**15.2196**	**15.2196**	**4.0200e-003**	**0.0000**	**15.3200**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	1.5800e-003	2.0000e-005	1.6000e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**1.9300e-003**	**1.6300e-003**	**0.0140**	**2.0000e-005**	**1.5800e-003**	**2.0000e-005**	**1.6000e-003**	**4.3000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.9904**	**1.9904**	**1.2000e-004**	**0.0000**	**1.9933**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0361	0.0000	0.0361	0.0185	0.0000	0.0185	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1864	0.0941	1.6000e-004		9.7800e-003	9.7800e-003		8.9900e-003	8.9900e-003	0.0000	15.1577	15.1577	4.6400e-003	0.0000	15.2738
Total	**0.0169**	**0.1864**	**0.0941**	**1.6000e-004**	**0.0361**	**9.7800e-003**	**0.0459**	**0.0185**	**8.9900e-003**	**0.0275**	**0.0000**	**15.1577**	**15.1577**	**4.6400e-003**	**0.0000**	**15.2738**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0500e-003	0.1451	0.0322	3.5000e-004	6.9200e-003	1.2200e-003	8.1300e-003	1.9000e-003	1.1600e-003	3.0700e-003	0.0000	33.0191	33.0191	1.9300e-003	0.0000	33.0673
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	2.0400e-003	2.0000e-005	2.0600e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**7.9800e-003**	**0.1467**	**0.0463**	**3.7000e-004**	**8.9600e-003**	**1.2400e-003**	**0.0102**	**2.4400e-003**	**1.1800e-003**	**3.6300e-003**	**0.0000**	**35.0094**	**35.0094**	**2.0500e-003**	**0.0000**	**35.0606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0154	0.0000	0.0154	7.9300e-003	0.0000	7.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1864	0.0941	1.6000e-004		9.7800e-003	9.7800e-003		8.9900e-003	8.9900e-003	0.0000	15.1577	15.1577	4.6400e-003	0.0000	15.2738
Total	**0.0169**	**0.1864**	**0.0941**	**1.6000e-004**	**0.0154**	**9.7800e-003**	**0.0252**	**7.9300e-003**	**8.9900e-003**	**0.0169**	**0.0000**	**15.1577**	**15.1577**	**4.6400e-003**	**0.0000**	**15.2738**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0500e-003	0.1451	0.0322	3.5000e-004	5.5700e-003	1.2200e-003	6.7900e-003	1.5700e-003	1.1600e-003	2.7400e-003	0.0000	33.0191	33.0191	1.9300e-003	0.0000	33.0673
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	1.5800e-003	2.0000e-005	1.6000e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**7.9800e-003**	**0.1467**	**0.0463**	**3.7000e-004**	**7.1500e-003**	**1.2400e-003**	**8.3900e-003**	**2.0000e-003**	**1.1800e-003**	**3.1900e-003**	**0.0000**	**35.0094**	**35.0094**	**2.0500e-003**	**0.0000**	**35.0606**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0912	0.7887	0.5344	7.9000e-004		0.0527	0.0527		0.0495	0.0495	0.0000	70.9529	70.9529	0.0178	0.0000	71.3972
Total	**0.0912**	**0.7887**	**0.5344**	**7.9000e-004**		**0.0527**	**0.0527**		**0.0495**	**0.0495**	**0.0000**	**70.9529**	**70.9529**	**0.0178**	**0.0000**	**71.3972**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8300e-003	0.0385	0.0190	8.0000e-005	1.6400e-003	4.0000e-004	2.0400e-003	4.7000e-004	3.8000e-004	8.6000e-004	0.0000	7.5269	7.5269	7.4000e-004	0.0000	7.5453
Worker	8.3600e-003	7.0500e-003	0.0608	1.0000e-004	8.8400e-003	8.0000e-005	8.9100e-003	2.3500e-003	7.0000e-005	2.4200e-003	0.0000	8.6249	8.6249	5.2000e-004	0.0000	8.6378
Total	**0.0112**	**0.0456**	**0.0798**	**1.8000e-004**	**0.0105**	**4.8000e-004**	**0.0110**	**2.8200e-003**	**4.5000e-004**	**3.2800e-003**	**0.0000**	**16.1518**	**16.1518**	**1.2600e-003**	**0.0000**	**16.1831**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0912	0.7887	0.5344	7.9000e-004		0.0527	0.0527		0.0495	0.0495	0.0000	70.9528	70.9528	0.0178	0.0000	71.3971
Total	**0.0912**	**0.7887**	**0.5344**	**7.9000e-004**		**0.0527**	**0.0527**		**0.0495**	**0.0495**	**0.0000**	**70.9528**	**70.9528**	**0.0178**	**0.0000**	**71.3971**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8300e-003	0.0385	0.0190	8.0000e-005	1.3400e-003	4.0000e-004	1.7400e-003	4.0000e-004	3.8000e-004	7.9000e-004	0.0000	7.5269	7.5269	7.4000e-004	0.0000	7.5453
Worker	8.3600e-003	7.0500e-003	0.0608	1.0000e-004	6.8500e-003	8.0000e-005	6.9300e-003	1.8600e-003	7.0000e-005	1.9300e-003	0.0000	8.6249	8.6249	5.2000e-004	0.0000	8.6378
Total	**0.0112**	**0.0456**	**0.0798**	**1.8000e-004**	**8.1900e-003**	**4.8000e-004**	**8.6700e-003**	**2.2600e-003**	**4.5000e-004**	**2.7200e-003**	**0.0000**	**16.1518**	**16.1518**	**1.2600e-003**	**0.0000**	**16.1831**

3.5 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4900e-003	0.0229	0.0196	3.0000e-005		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	2.6809	2.6809	2.8000e-004	0.0000	2.6880
Total	**0.3511**	**0.0229**	**0.0196**	**3.0000e-005**		**1.8200e-003**	**1.8200e-003**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**2.6809**	**2.6809**	**2.8000e-004**	**0.0000**	**2.6880**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	3.1000e-004	2.6800e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3800	0.3800	2.0000e-005	0.0000	0.3806
Total	**3.7000e-004**	**3.1000e-004**	**2.6800e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3800**	**0.3800**	**2.0000e-005**	**0.0000**	**0.3806**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4900e-003	0.0229	0.0196	3.0000e-005		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	2.6809	2.6809	2.8000e-004	0.0000	2.6880
Total	**0.3511**	**0.0229**	**0.0196**	**3.0000e-005**		**1.8200e-003**	**1.8200e-003**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**2.6809**	**2.6809**	**2.8000e-004**	**0.0000**	**2.6880**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	3.1000e-004	2.6800e-003	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.3800	0.3800	2.0000e-005	0.0000	0.3806
Total	**3.7000e-004**	**3.1000e-004**	**2.6800e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3800**	**0.3800**	**2.0000e-005**	**0.0000**	**0.3806**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1786	2.6200e-003	0.2795	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	0.5361	0.5361	1.4700e-003	0.0000	0.5728
Unmitigated	0.1786	2.6200e-003	0.2795	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	0.5361	0.5361	1.4700e-003	0.0000	0.5728

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0348					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1172					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0267	2.6200e-003	0.2795	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	0.5361	0.5361	1.4700e-003	0.0000	0.5728
Total	**0.1786**	**2.6200e-003**	**0.2795**	**2.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**0.5361**	**0.5361**	**1.4700e-003**	**0.0000**	**0.5728**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0348					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1172					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0267	2.6200e-003	0.2795	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	0.5361	0.5361	1.4700e-003	0.0000	0.5728
Total	**0.1786**	**2.6200e-003**	**0.2795**	**2.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**0.5361**	**0.5361**	**1.4700e-003**	**0.0000**	**0.5728**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Parenthetical CALEEMOD Assumptions
For: Mammoth Creek Park West New Community Multi-Use Facilities Project
December 2016

PHASE II

- 5,000 square feet of community center facilities.

CONSTRUCTION

Demolition (2017)

- 22 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Concrete/Industrial Saws	4
3	Excavators	4
2	Rubber Tired Dozers	4

Grading (2017)

- 22 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Excavators	4
1	Graders	4
1	Rubber Tired Dozers	4
3	Tractors/Loaders/Backhoes	4

Building Construction (2017 - 2018)

- 175 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Cranes	4
3	Forklifts	4
1	Generator Sets	4
3	Tractors/Loaders/Backhoes	4
1	Welders	4

Paving (2017)

- 21 days.

Equipment:

Quantity	Type	Hours of Daily Operation
2	Pavers	8
2	Paving Equipment	8
2	Rollers	8

Architectural Coating (2018)

- 20 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Air Compressors	6

Multi-Use Facilities Project - Phase II Construction

Great Basin Valleys Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	50.00	Space	0.45	20,000.00	0
User Defined Recreational	5,000.00	User Defined Unit	4.90	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project characteristics

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - Site acreage

Architectural Coating -

Vehicle Trips - construction run only

Area Coating -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	230.00	175.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	5/30/2018	3/10/2018
tblConstructionPhase	PhaseEndDate	4/3/2018	3/9/2018
tblConstructionPhase	PhaseEndDate	6/30/2017	7/8/2017
tblConstructionPhase	PhaseEndDate	8/1/2017	7/1/2017
tblConstructionPhase	PhaseEndDate	5/2/2018	10/1/2017
tblConstructionPhase	PhaseStartDate	5/3/2018	2/10/2018
tblConstructionPhase	PhaseStartDate	8/2/2017	7/9/2017
tblConstructionPhase	PhaseStartDate	6/1/2017	6/8/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/1/2017
tblConstructionPhase	PhaseStartDate	4/4/2018	9/1/2017
tblGrading	AcresOfGrading	5.50	4.90
tblLandUse	BuildingSpaceSquareFeet	0.00	5,000.00

tblLandUse	LandUseSquareFeet	0.00	5,000.00
tblLandUse	LotAcreage	0.00	4.90
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	ConstructionPhaseStartDate	6/1/2017 2:58:37 PM	6/1/2017 12:00:00 AM
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.9969	38.5688	27.1982	0.0420	3.6305	2.1264	5.6191	1.7822	1.9736	3.6240	0.0000	4,236.0353	4,236.0353	1.1025	0.0000	4,263.5989
2018	8.3793	15.2408	12.4084	0.0203	0.1906	0.9587	1.1493	0.0511	0.9092	0.9603	0.0000	1,985.0557	1,985.0557	0.3946	0.0000	1,994.9197
Maximum	**8.3793**	**38.5688**	**27.1982**	**0.0420**	**3.6305**	**2.1264**	**5.6191**	**1.7822**	**1.9736**	**3.6240**	**0.0000**	**4,236.0353**	**4,236.0353**	**1.1025**	**0.0000**	**4,263.5989**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.9969	38.5688	27.1982	0.0420	1.6848	2.1264	3.6734	0.7988	1.9736	2.6406	0.0000	4,236.0353	4,236.0353	1.1025	0.0000	4,263.5989
2018	8.3793	15.2408	12.4084	0.0203	0.1485	0.9587	1.1072	0.0408	0.9092	0.9500	0.0000	1,985.0557	1,985.0557	0.3946	0.0000	1,994.9197
Maximum	**8.3793**	**38.5688**	**27.1982**	**0.0420**	**1.6848**	**2.1264**	**3.6734**	**0.7988**	**1.9736**	**2.6406**	**0.0000**	**4,236.0353**	**4,236.0353**	**1.1025**	**0.0000**	**4,263.5989**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**52.02**	**0.00**	**29.37**	**54.20**	**0.00**	**21.68**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**	**0.0000**	**1.8700e-003**	**1.8700e-003**	**0.0000**	**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**	**0.0000**	**1.1801**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**	**0.0000**	**1.8700e-003**	**1.8700e-003**	**0.0000**	**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**	**0.0000**	**1.1801**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/8/2017	7/8/2017	5	22	
2	Grading	Grading	6/1/2017	7/1/2017	5	22	
3	Building Construction	Building Construction	7/9/2017	3/9/2018	5	175	
4	Architectural Coating	Architectural Coating	2/10/2018	3/10/2018	5	20	
5	Paving	Paving	9/1/2017	10/1/2017	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	4.00	158	0.38
Demolition	Rubber Tired Dozers	2	4.00	247	0.40
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	3	4.00	89	0.20
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	11.00	4.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.0516	21.3737	11.5061	0.0194		1.0967	1.0967		1.0213	1.0213		1,962.1417	1,962.1417	0.5365		1,975.5535
Total	**2.0516**	**21.3737**	**11.5061**	**0.0194**	**0.0000**	**1.0967**	**1.0967**	**0.0000**	**1.0213**	**1.0213**		**1,962.1417**	**1,962.1417**	**0.5365**		**1,975.5535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.0516	21.3737	11.5061	0.0194		1.0967	1.0967		1.0213	1.0213	0.0000	1,962.1417	1,962.1417	0.5365		1,975.5535
Total	**2.0516**	**21.3737**	**11.5061**	**0.0194**	**0.0000**	**1.0967**	**1.0967**	**0.0000**	**1.0213**	**1.0213**	**0.0000**	**1,962.1417**	**1,962.1417**	**0.5365**		**1,975.5535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2473	0.0000	3.2473	1.6806	0.0000	1.6806			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176		1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**3.2473**	**0.8887**	**4.1360**	**1.6806**	**0.8176**	**2.4982**		**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3882	0.0000	1.3882	0.7185	0.0000	0.7185			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176	0.0000	1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**1.3882**	**0.8887**	**2.2769**	**0.7185**	**0.8176**	**1.5361**	**0.0000**	**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992		1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**		**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0397	0.5533	0.2462	1.1800e-003	0.0245	5.6800e-003	0.0302	7.0600e-003	5.4400e-003	0.0125		122.6911	122.6911	0.0111		122.9680
Worker	0.1261	0.0923	0.9324	1.5400e-003	0.1405	1.1600e-003	0.1417	0.0373	1.0700e-003	0.0383		152.5860	152.5860	8.9800e-003		152.8105
Total	**0.1657**	**0.6456**	**1.1786**	**2.7200e-003**	**0.1650**	**6.8400e-003**	**0.1719**	**0.0443**	**6.5100e-003**	**0.0508**		**275.2772**	**275.2772**	**0.0201**		**275.7785**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992	0.0000	1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**	**0.0000**	**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0397	0.5533	0.2462	1.1800e-003	0.0200	5.6800e-003	0.0257	5.9500e-003	5.4400e-003	0.0114		122.6911	122.6911	0.0111		122.9680
Worker	0.1261	0.0923	0.9324	1.5400e-003	0.1087	1.1600e-003	0.1099	0.0295	1.0700e-003	0.0305		152.5860	152.5860	8.9800e-003		152.8105
Total	**0.1657**	**0.6456**	**1.1786**	**2.7200e-003**	**0.1287**	**6.8400e-003**	**0.1356**	**0.0354**	**6.5100e-003**	**0.0419**		**275.2772**	**275.2772**	**0.0201**		**275.7785**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4253	12.6144	9.3860	0.0144		0.8033	0.8033		0.7541	0.7541		1,405.4004	1,405.4004	0.3506		1,414.1659
Total	**1.4253**	**12.6144**	**9.3860**	**0.0144**		**0.8033**	**0.8033**		**0.7541**	**0.7541**		**1,405.4004**	**1,405.4004**	**0.3506**		**1,414.1659**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0301	0.5250	0.1988	1.1800e-003	0.0245	3.5400e-003	0.0281	7.0600e-003	3.3900e-003	0.0105		122.8191	122.8191	7.8700e-003		123.0158
Worker	0.1153	0.0810	0.8203	1.4900e-003	0.1405	1.1100e-003	0.1416	0.0373	1.0200e-003	0.0383		148.4050	148.4050	7.8900e-003		148.6023
Total	**0.1454**	**0.6060**	**1.0191**	**2.6700e-003**	**0.1650**	**4.6500e-003**	**0.1697**	**0.0443**	**4.4100e-003**	**0.0487**		**271.2241**	**271.2241**	**0.0158**		**271.6181**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4253	12.6144	9.3860	0.0144		0.8033	0.8033		0.7541	0.7541	0.0000	1,405.4004	1,405.4004	0.3506		1,414.1659
Total	**1.4253**	**12.6144**	**9.3860**	**0.0144**		**0.8033**	**0.8033**		**0.7541**	**0.7541**	**0.0000**	**1,405.4004**	**1,405.4004**	**0.3506**		**1,414.1659**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0301	0.5250	0.1988	1.1800e-003	0.0200	3.5400e-003	0.0235	5.9500e-003	3.3900e-003	9.3400e-003		122.8191	122.8191	7.8700e-003		123.0158
Worker	0.1153	0.0810	0.8203	1.4900e-003	0.1087	1.1100e-003	0.1099	0.0295	1.0200e-003	0.0305		148.4050	148.4050	7.8900e-003		148.6023
Total	**0.1454**	**0.6060**	**1.0191**	**2.6700e-003**	**0.1287**	**4.6500e-003**	**0.1334**	**0.0354**	**4.4100e-003**	**0.0398**		**271.2241**	**271.2241**	**0.0158**		**271.6181**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**6.7876**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0210	0.0147	0.1491	2.7000e-004	0.0256	2.0000e-004	0.0258	6.7700e-003	1.9000e-004	6.9600e-003		26.9827	26.9827	1.4300e-003		27.0186
Total	**0.0210**	**0.0147**	**0.1491**	**2.7000e-004**	**0.0256**	**2.0000e-004**	**0.0258**	**6.7700e-003**	**1.9000e-004**	**6.9600e-003**		**26.9827**	**26.9827**	**1.4300e-003**		**27.0186**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**6.7876**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0210	0.0147	0.1491	2.7000e-004	0.0198	2.0000e-004	0.0200	5.3600e-003	1.9000e-004	5.5400e-003		26.9827	26.9827	1.4300e-003		27.0186
Total	**0.0210**	**0.0147**	**0.1491**	**2.7000e-004**	**0.0198**	**2.0000e-004**	**0.0200**	**5.3600e-003**	**1.9000e-004**	**5.5400e-003**		**26.9827**	**26.9827**	**1.4300e-003**		**27.0186**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9449	20.7178	15.0320	0.0228		1.1592	1.1592		1.0665	1.0665		2,330.6461	2,330.6461	0.7141		2,348.4988
Paving	0.0561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0010**	**20.7178**	**15.0320**	**0.0228**		**1.1592**	**1.1592**		**1.0665**	**1.0665**		**2,330.6461**	**2,330.6461**	**0.7141**		**2,348.4988**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9449	20.7178	15.0320	0.0228		1.1592	1.1592		1.0665	1.0665	0.0000	2,330.6461	2,330.6461	0.7141		2,348.4988
Paving	0.0561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0010**	**20.7178**	**15.0320**	**0.0228**		**1.1592**	**1.1592**		**1.0665**	**1.0665**	**0.0000**	**2,330.6461**	**2,330.6461**	**0.7141**		**2,348.4988**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1719	0.1258	1.2715	2.1000e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		208.0719	208.0719	0.0122		208.3780
Total	**0.1719**	**0.1258**	**1.2715**	**2.1000e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**208.0719**	**208.0719**	**0.0122**		**208.3780**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.478691	0.054374	0.195682	0.159777	0.042818	0.007921	0.007143	0.010556	0.001900	0.000600	0.032048	0.000818	0.007673
User Defined Recreational	0.478691	0.054374	0.195682	0.159777	0.042818	0.007921	0.007143	0.010556	0.001900	0.000600	0.032048	0.000818	0.007673

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Unmitigated	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0356					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0493	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**		**1.1801**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0356					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0493	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**		**1.1801**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Phase II Construction

Great Basin Valleys Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	50.00	Space	0.45	20,000.00	0
User Defined Recreational	5,000.00	User Defined Unit	4.90	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project characteristics

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - Site acreage

Architectural Coating -

Vehicle Trips - construction run only

Area Coating -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	230.00	175.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	5/30/2018	3/10/2018
tblConstructionPhase	PhaseEndDate	4/3/2018	3/9/2018
tblConstructionPhase	PhaseEndDate	6/30/2017	7/8/2017
tblConstructionPhase	PhaseEndDate	8/1/2017	7/1/2017
tblConstructionPhase	PhaseEndDate	5/2/2018	10/1/2017
tblConstructionPhase	PhaseStartDate	5/3/2018	2/10/2018
tblConstructionPhase	PhaseStartDate	8/2/2017	7/9/2017
tblConstructionPhase	PhaseStartDate	6/1/2017	6/8/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/1/2017
tblConstructionPhase	PhaseStartDate	4/4/2018	9/1/2017
tblGrading	AcresOfGrading	5.50	4.90
tblLandUse	BuildingSpaceSquareFeet	0.00	5,000.00

tblLandUse	LandUseSquareFeet	0.00	5,000.00
tblLandUse	LotAcreage	0.00	4.90
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	ConstructionPhaseStartDate	6/1/2017 2:58:37 PM	6/1/2017 12:00:00 AM
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.0829	38.5786	27.2331	0.0419	3.6305	2.1268	5.6191	1.7822	1.9740	3.6240	0.0000	4,230.3159	4,230.3159	1.1036	0.0000	4,257.9050
2018	8.4202	15.2363	12.4287	0.0203	0.1906	0.9588	1.1494	0.0511	0.9093	0.9604	0.0000	1,979.6538	1,979.6538	0.3952	0.0000	1,989.5340
Maximum	**8.4202**	**38.5786**	**27.2331**	**0.0419**	**3.6305**	**2.1268**	**5.6191**	**1.7822**	**1.9740**	**3.6240**	**0.0000**	**4,230.3159**	**4,230.3159**	**1.1036**	**0.0000**	**4,257.9050**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.0829	38.5786	27.2331	0.0419	1.6848	2.1268	3.6734	0.7988	1.9740	2.6406	0.0000	4,230.3159	4,230.3159	1.1036	0.0000	4,257.9050
2018	8.4202	15.2363	12.4287	0.0203	0.1485	0.9588	1.1073	0.0408	0.9093	0.9501	0.0000	1,979.6538	1,979.6538	0.3952	0.0000	1,989.5340
Maximum	**8.4202**	**38.5786**	**27.2331**	**0.0419**	**1.6848**	**2.1268**	**3.6734**	**0.7988**	**1.9740**	**2.6406**	**0.0000**	**4,230.3159**	**4,230.3159**	**1.1036**	**0.0000**	**4,257.9050**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**52.02**	**0.00**	**29.37**	**54.20**	**0.00**	**21.68**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**	**0.0000**	**1.8700e-003**	**1.8700e-003**	**0.0000**	**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**	**0.0000**	**1.1801**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**	**0.0000**	**1.8700e-003**	**1.8700e-003**	**0.0000**	**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**	**0.0000**	**1.1801**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/8/2017	7/8/2017	5	22	
2	Grading	Grading	6/1/2017	7/1/2017	5	22	
3	Building Construction	Building Construction	7/9/2017	3/9/2018	5	175	
4	Architectural Coating	Architectural Coating	2/10/2018	3/10/2018	5	20	
5	Paving	Paving	9/1/2017	10/1/2017	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	4.00	158	0.38
Demolition	Rubber Tired Dozers	2	4.00	247	0.40
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	3	4.00	89	0.20
Building Construction	Generator Sets	1	4.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	11.00	4.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.0516	21.3737	11.5061	0.0194		1.0967	1.0967		1.0213	1.0213		1,962.1417	1,962.1417	0.5365		1,975.5535
Total	**2.0516**	**21.3737**	**11.5061**	**0.0194**	**0.0000**	**1.0967**	**1.0967**	**0.0000**	**1.0213**	**1.0213**		**1,962.1417**	**1,962.1417**	**0.5365**		**1,975.5535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.0516	21.3737	11.5061	0.0194		1.0967	1.0967		1.0213	1.0213	0.0000	1,962.1417	1,962.1417	0.5365		1,975.5535
Total	**2.0516**	**21.3737**	**11.5061**	**0.0194**	**0.0000**	**1.0967**	**1.0967**	**0.0000**	**1.0213**	**1.0213**	**0.0000**	**1,962.1417**	**1,962.1417**	**0.5365**		**1,975.5535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2473	0.0000	3.2473	1.6806	0.0000	1.6806			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176		1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**3.2473**	**0.8887**	**4.1360**	**1.6806**	**0.8176**	**2.4982**		**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3882	0.0000	1.3882	0.7185	0.0000	0.7185			0.0000			0.0000
Off-Road	1.5352	16.9434	8.5521	0.0148		0.8887	0.8887		0.8176	0.8176	0.0000	1,518.9553	1,518.9553	0.4654		1,530.5905
Total	**1.5352**	**16.9434**	**8.5521**	**0.0148**	**1.3882**	**0.8887**	**2.2769**	**0.7185**	**0.8176**	**1.5361**	**0.0000**	**1,518.9553**	**1,518.9553**	**0.4654**		**1,530.5905**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992		1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**		**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0429	0.5452	0.2707	1.1300e-003	0.0245	6.0600e-003	0.0306	7.0600e-003	5.7900e-003	0.0129		117.9168	117.9168	0.0120		118.2177
Worker	0.1611	0.0959	0.9368	1.5300e-003	0.1405	1.1600e-003	0.1417	0.0373	1.0700e-003	0.0383		152.1862	152.1862	9.0000e-003		152.4113
Total	**0.2040**	**0.6411**	**1.2075**	**2.6600e-003**	**0.1650**	**7.2200e-003**	**0.1723**	**0.0443**	**6.8600e-003**	**0.0512**		**270.1030**	**270.1030**	**0.0210**		**270.6290**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6583	14.3395	9.7162	0.0144		0.9588	0.9588		0.8992	0.8992	0.0000	1,422.0401	1,422.0401	0.3561		1,430.9437
Total	**1.6583**	**14.3395**	**9.7162**	**0.0144**		**0.9588**	**0.9588**		**0.8992**	**0.8992**	**0.0000**	**1,422.0401**	**1,422.0401**	**0.3561**		**1,430.9437**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0429	0.5452	0.2707	1.1300e-003	0.0200	6.0600e-003	0.0261	5.9500e-003	5.7900e-003	0.0118		117.9168	117.9168	0.0120		118.2177
Worker	0.1611	0.0959	0.9368	1.5300e-003	0.1087	1.1600e-003	0.1099	0.0295	1.0700e-003	0.0305		152.1862	152.1862	9.0000e-003		152.4113
Total	**0.2040**	**0.6411**	**1.2075**	**2.6600e-003**	**0.1287**	**7.2200e-003**	**0.1360**	**0.0354**	**6.8600e-003**	**0.0423**		**270.1030**	**270.1030**	**0.0210**		**270.6290**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4253	12.6144	9.3860	0.0144		0.8033	0.8033		0.7541	0.7541		1,405.4004	1,405.4004	0.3506		1,414.1659
Total	**1.4253**	**12.6144**	**9.3860**	**0.0144**		**0.8033**	**0.8033**		**0.7541**	**0.7541**		**1,405.4004**	**1,405.4004**	**0.3506**		**1,414.1659**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0325	0.5167	0.2148	1.1300e-003	0.0245	3.6300e-003	0.0282	7.0600e-003	3.4700e-003	0.0105		117.8776	117.8776	8.4900e-003		118.0899
Worker	0.1479	0.0841	0.8239	1.4900e-003	0.1405	1.1100e-003	0.1416	0.0373	1.0200e-003	0.0383		148.0154	148.0154	7.9100e-003		148.2132
Total	**0.1804**	**0.6008**	**1.0387**	**2.6200e-003**	**0.1650**	**4.7400e-003**	**0.1698**	**0.0443**	**4.4900e-003**	**0.0488**		**265.8930**	**265.8930**	**0.0164**		**266.3031**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4253	12.6144	9.3860	0.0144		0.8033	0.8033		0.7541	0.7541	0.0000	1,405.4004	1,405.4004	0.3506		1,414.1659
Total	**1.4253**	**12.6144**	**9.3860**	**0.0144**		**0.8033**	**0.8033**		**0.7541**	**0.7541**	**0.0000**	**1,405.4004**	**1,405.4004**	**0.3506**		**1,414.1659**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0325	0.5167	0.2148	1.1300e-003	0.0200	3.6300e-003	0.0236	5.9500e-003	3.4700e-003	9.4200e-003		117.8776	117.8776	8.4900e-003		118.0899
Worker	0.1479	0.0841	0.8239	1.4900e-003	0.1087	1.1100e-003	0.1099	0.0295	1.0200e-003	0.0305		148.0154	148.0154	7.9100e-003		148.2132
Total	**0.1804**	**0.6008**	**1.0387**	**2.6200e-003**	**0.1287**	**4.7400e-003**	**0.1335**	**0.0354**	**4.4900e-003**	**0.0399**		**265.8930**	**265.8930**	**0.0164**		**266.3031**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**6.7876**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0269	0.0153	0.1498	2.7000e-004	0.0256	2.0000e-004	0.0258	6.7700e-003	1.9000e-004	6.9600e-003		26.9119	26.9119	1.4400e-003		26.9479
Total	**0.0269**	**0.0153**	**0.1498**	**2.7000e-004**	**0.0256**	**2.0000e-004**	**0.0258**	**6.7700e-003**	**1.9000e-004**	**6.9600e-003**		**26.9119**	**26.9119**	**1.4400e-003**		**26.9479**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.4890					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**6.7876**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0269	0.0153	0.1498	2.7000e-004	0.0198	2.0000e-004	0.0200	5.3600e-003	1.9000e-004	5.5400e-003		26.9119	26.9119	1.4400e-003		26.9479
Total	**0.0269**	**0.0153**	**0.1498**	**2.7000e-004**	**0.0198**	**2.0000e-004**	**0.0200**	**5.3600e-003**	**1.9000e-004**	**5.5400e-003**		**26.9119**	**26.9119**	**1.4400e-003**		**26.9479**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9449	20.7178	15.0320	0.0228		1.1592	1.1592		1.0665	1.0665		2,330.6461	2,330.6461	0.7141		2,348.4988
Paving	0.0561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0010**	**20.7178**	**15.0320**	**0.0228**		**1.1592**	**1.1592**		**1.0665**	**1.0665**		**2,330.6461**	**2,330.6461**	**0.7141**		**2,348.4988**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1916	1.5800e-003	0.1932	0.0508	1.4600e-003	0.0523		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1916**	**1.5800e-003**	**0.1932**	**0.0508**	**1.4600e-003**	**0.0523**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9449	20.7178	15.0320	0.0228		1.1592	1.1592		1.0665	1.0665	0.0000	2,330.6461	2,330.6461	0.7141		2,348.4988
Paving	0.0561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0010**	**20.7178**	**15.0320**	**0.0228**		**1.1592**	**1.1592**		**1.0665**	**1.0665**	**0.0000**	**2,330.6461**	**2,330.6461**	**0.7141**		**2,348.4988**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.1307	1.2775	2.0900e-003	0.1483	1.5800e-003	0.1499	0.0402	1.4600e-003	0.0416		207.5267	207.5267	0.0123		207.8336
Total	**0.2197**	**0.1307**	**1.2775**	**2.0900e-003**	**0.1483**	**1.5800e-003**	**0.1499**	**0.0402**	**1.4600e-003**	**0.0416**		**207.5267**	**207.5267**	**0.0123**		**207.8336**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.478691	0.054374	0.195682	0.159777	0.042818	0.007921	0.007143	0.010556	0.001900	0.000600	0.032048	0.000818	0.007673
User Defined Recreational	0.478691	0.054374	0.195682	0.159777	0.042818	0.007921	0.007143	0.010556	0.001900	0.000600	0.032048	0.000818	0.007673

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Unmitigated	0.1990	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0356					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0493	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**		**1.1801**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0356					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1141					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0493	4.8400e-003	0.5206	4.0000e-005		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		1.1052	1.1052	3.0000e-003		1.1801
Total	**0.1990**	**4.8400e-003**	**0.5206**	**4.0000e-005**		**1.8700e-003**	**1.8700e-003**		**1.8700e-003**	**1.8700e-003**		**1.1052**	**1.1052**	**3.0000e-003**		**1.1801**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Phase II Construction

Great Basin Valleys Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	50.00	Space	0.45	20,000.00	0
User Defined Recreational	5,000.00	User Defined Unit	4.90	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project characteristics

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment - Phase I and Phase II concurrent construction

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - Site acreage

Architectural Coating -

Vehicle Trips - construction run only

Area Coating -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	230.00	175.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	5/30/2018	3/10/2018
tblConstructionPhase	PhaseEndDate	4/3/2018	3/9/2018
tblConstructionPhase	PhaseEndDate	6/30/2017	7/8/2017
tblConstructionPhase	PhaseEndDate	8/1/2017	7/1/2017
tblConstructionPhase	PhaseEndDate	5/2/2018	10/1/2017
tblConstructionPhase	PhaseStartDate	5/3/2018	2/10/2018
tblConstructionPhase	PhaseStartDate	8/2/2017	7/9/2017
tblConstructionPhase	PhaseStartDate	6/1/2017	6/8/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	6/1/2017
tblConstructionPhase	PhaseStartDate	4/4/2018	9/1/2017
tblGrading	AcresOfGrading	5.50	4.90
tblLandUse	BuildingSpaceSquareFeet	0.00	5,000.00

tblLandUse	LandUseSquareFeet	0.00	5,000.00
tblLandUse	LotAcreage	0.00	4.90
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	ConstructionPhaseStartDate	6/1/2017 2:58:37 PM	6/1/2017 12:00:00 AM
tblProjectCharacteristics	OperationalYear	2018	2019
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1804	1.5819	1.1030	1.7500e-003	0.0517	0.0944	0.1462	0.0228	0.0881	0.1109	0.0000	158.5831	158.5831	0.0385	0.0000	159.5459
2018	0.1074	0.3512	0.2807	4.6000e-004	4.2400e-003	0.0217	0.0260	1.1400e-003	0.0205	0.0216	0.0000	40.6263	40.6263	8.5700e-003	0.0000	40.8406
Maximum	**0.1804**	**1.5819**	**1.1030**	**1.7500e-003**	**0.0517**	**0.0944**	**0.1462**	**0.0228**	**0.0881**	**0.1109**	**0.0000**	**158.5831**	**158.5831**	**0.0385**	**0.0000**	**159.5459**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1804	1.5819	1.1030	1.7500e-003	0.0278	0.0944	0.1222	0.0113	0.0881	0.0994	0.0000	158.5829	158.5829	0.0385	0.0000	159.5458
2018	0.1074	0.3512	0.2807	4.6000e-004	3.3100e-003	0.0217	0.0250	9.1000e-004	0.0205	0.0214	0.0000	40.6262	40.6262	8.5700e-003	0.0000	40.8405
Maximum	**0.1804**	**1.5819**	**1.1030**	**1.7500e-003**	**0.0278**	**0.0944**	**0.1222**	**0.0113**	**0.0881**	**0.0994**	**0.0000**	**158.5829**	**158.5829**	**0.0385**	**0.0000**	**159.5458**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**44.52**	**0.00**	**14.48**	**48.83**	**0.00**	**8.82**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2017**	**8-31-2017**	0.7947	0.7947
2	**9-1-2017**	**11-30-2017**	0.8019	0.8019
3	**12-1-2017**	**2-28-2018**	0.5587	0.5587
4	**3-1-2018**	**5-31-2018**	0.0792	0.0792
		Highest	0.8019	0.8019

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0318	4.4000e-004	0.0469	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0902	0.0902	2.4000e-004	0.0000	0.0964
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.6077	5.6077	2.3000e-004	5.0000e-005	5.6278
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0318**	**4.4000e-004**	**0.0469**	**0.0000**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**5.6980**	**5.6980**	**4.7000e-004**	**5.0000e-005**	**5.7242**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0318	4.4000e-004	0.0469	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0902	0.0902	2.4000e-004	0.0000	0.0964
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.6077	5.6077	2.3000e-004	5.0000e-005	5.6278
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0318**	**4.4000e-004**	**0.0469**	**0.0000**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**1.7000e-004**	**0.0000**	**5.6980**	**5.6980**	**4.7000e-004**	**5.0000e-005**	**5.7242**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/8/2017	7/8/2017	5	22	
2	Grading	Grading	6/1/2017	7/1/2017	5	22	
3	Building Construction	Building Construction	7/9/2017	3/9/2018	5	175	
4	Architectural Coating	Architectural Coating	2/10/2018	3/10/2018	5	20	
5	Paving	Paving	9/1/2017	10/1/2017	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0.45

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	3	4.00	158	0.38
Demolition	Rubber Tired Dozers	2	4.00	247	0.40
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	3	4.00	89	0.20
Building Construction	Generator Sets	1	4.00	84	0.74

Building Construction	Tractors/Loaders/Backhoes	3	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	11.00	4.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.2351	0.1266	2.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	19.5803	19.5803	5.3500e-003	0.0000	19.7141
Total	**0.0226**	**0.2351**	**0.1266**	**2.1000e-004**	**0.0000**	**0.0121**	**0.0121**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**19.5803**	**19.5803**	**5.3500e-003**	**0.0000**	**19.7141**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	2.0400e-003	2.0000e-005	2.0600e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**1.9300e-003**	**1.6300e-003**	**0.0140**	**2.0000e-005**	**2.0400e-003**	**2.0000e-005**	**2.0600e-003**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**0.0000**	**1.9904**	**1.9904**	**1.2000e-004**	**0.0000**	**1.9933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.2351	0.1266	2.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	19.5803	19.5803	5.3500e-003	0.0000	19.7141
Total	**0.0226**	**0.2351**	**0.1266**	**2.1000e-004**	**0.0000**	**0.0121**	**0.0121**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**19.5803**	**19.5803**	**5.3500e-003**	**0.0000**	**19.7141**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	1.5800e-003	2.0000e-005	1.6000e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**1.9300e-003**	**1.6300e-003**	**0.0140**	**2.0000e-005**	**1.5800e-003**	**2.0000e-005**	**1.6000e-003**	**4.3000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.9904**	**1.9904**	**1.2000e-004**	**0.0000**	**1.9933**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0357	0.0000	0.0357	0.0185	0.0000	0.0185	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1864	0.0941	1.6000e-004		9.7800e-003	9.7800e-003		8.9900e-003	8.9900e-003	0.0000	15.1577	15.1577	4.6400e-003	0.0000	15.2738
Total	**0.0169**	**0.1864**	**0.0941**	**1.6000e-004**	**0.0357**	**9.7800e-003**	**0.0455**	**0.0185**	**8.9900e-003**	**0.0275**	**0.0000**	**15.1577**	**15.1577**	**4.6400e-003**	**0.0000**	**15.2738**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	2.0400e-003	2.0000e-005	2.0600e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**1.9300e-003**	**1.6300e-003**	**0.0140**	**2.0000e-005**	**2.0400e-003**	**2.0000e-005**	**2.0600e-003**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**0.0000**	**1.9904**	**1.9904**	**1.2000e-004**	**0.0000**	**1.9933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0153	0.0000	0.0153	7.9000e-003	0.0000	7.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1864	0.0941	1.6000e-004		9.7800e-003	9.7800e-003		8.9900e-003	8.9900e-003	0.0000	15.1577	15.1577	4.6400e-003	0.0000	15.2738
Total	**0.0169**	**0.1864**	**0.0941**	**1.6000e-004**	**0.0153**	**9.7800e-003**	**0.0251**	**7.9000e-003**	**8.9900e-003**	**0.0169**	**0.0000**	**15.1577**	**15.1577**	**4.6400e-003**	**0.0000**	**15.2738**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.6300e-003	0.0140	2.0000e-005	1.5800e-003	2.0000e-005	1.6000e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.9904	1.9904	1.2000e-004	0.0000	1.9933
Total	**1.9300e-003**	**1.6300e-003**	**0.0140**	**2.0000e-005**	**1.5800e-003**	**2.0000e-005**	**1.6000e-003**	**4.3000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.9904**	**1.9904**	**1.2000e-004**	**0.0000**	**1.9933**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1036	0.8962	0.6073	9.0000e-004		0.0599	0.0599		0.0562	0.0562	0.0000	80.6283	80.6283	0.0202	0.0000	81.1331
Total	**0.1036**	**0.8962**	**0.6073**	**9.0000e-004**		**0.0599**	**0.0599**		**0.0562**	**0.0562**	**0.0000**	**80.6283**	**80.6283**	**0.0202**	**0.0000**	**81.1331**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5800e-003	0.0350	0.0173	7.0000e-005	1.4900e-003	3.7000e-004	1.8600e-003	4.3000e-004	3.5000e-004	7.8000e-004	0.0000	6.8427	6.8427	6.7000e-004	0.0000	6.8594
Worker	8.0400e-003	6.7700e-003	0.0585	9.0000e-005	8.5000e-003	7.0000e-005	8.5700e-003	2.2600e-003	7.0000e-005	2.3300e-003	0.0000	8.2931	8.2931	5.0000e-004	0.0000	8.3056
Total	**0.0106**	**0.0418**	**0.0758**	**1.6000e-004**	**9.9900e-003**	**4.4000e-004**	**0.0104**	**2.6900e-003**	**4.2000e-004**	**3.1100e-003**	**0.0000**	**15.1358**	**15.1358**	**1.1700e-003**	**0.0000**	**15.1650**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1036	0.8962	0.6073	9.0000e-004		0.0599	0.0599		0.0562	0.0562	0.0000	80.6282	80.6282	0.0202	0.0000	81.1331
Total	**0.1036**	**0.8962**	**0.6073**	**9.0000e-004**		**0.0599**	**0.0599**		**0.0562**	**0.0562**	**0.0000**	**80.6282**	**80.6282**	**0.0202**	**0.0000**	**81.1331**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5800e-003	0.0350	0.0173	7.0000e-005	1.2200e-003	3.7000e-004	1.5800e-003	3.6000e-004	3.5000e-004	7.1000e-004	0.0000	6.8427	6.8427	6.7000e-004	0.0000	6.8594
Worker	8.0400e-003	6.7700e-003	0.0585	9.0000e-005	6.5900e-003	7.0000e-005	6.6600e-003	1.7900e-003	7.0000e-005	1.8600e-003	0.0000	8.2931	8.2931	5.0000e-004	0.0000	8.3056
Total	**0.0106**	**0.0418**	**0.0758**	**1.6000e-004**	**7.8100e-003**	**4.4000e-004**	**8.2400e-003**	**2.1500e-003**	**4.2000e-004**	**2.5700e-003**	**0.0000**	**15.1358**	**15.1358**	**1.1700e-003**	**0.0000**	**15.1650**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0356	0.3154	0.2347	3.6000e-004		0.0201	0.0201		0.0189	0.0189	0.0000	31.8740	31.8740	7.9500e-003	0.0000	32.0727
Total	**0.0356**	**0.3154**	**0.2347**	**3.6000e-004**		**0.0201**	**0.0201**		**0.0189**	**0.0189**	**0.0000**	**31.8740**	**31.8740**	**7.9500e-003**	**0.0000**	**32.0727**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8000e-004	0.0133	5.5500e-003	3.0000e-005	6.0000e-004	9.0000e-005	6.9000e-004	1.7000e-004	9.0000e-005	2.6000e-004	0.0000	2.7384	2.7384	1.9000e-004	0.0000	2.7431
Worker	2.9400e-003	2.3800e-003	0.0205	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	3.2261	3.2261	1.7000e-004	0.0000	3.2304
Total	**3.7200e-003**	**0.0157**	**0.0260**	**7.0000e-005**	**4.0000e-003**	**1.2000e-004**	**4.1200e-003**	**1.0700e-003**	**1.2000e-004**	**1.1900e-003**	**0.0000**	**5.9644**	**5.9644**	**3.6000e-004**	**0.0000**	**5.9736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0356	0.3154	0.2347	3.6000e-004		0.0201	0.0201		0.0189	0.0189	0.0000	31.8739	31.8739	7.9500e-003	0.0000	32.0727
Total	**0.0356**	**0.3154**	**0.2347**	**3.6000e-004**		**0.0201**	**0.0201**		**0.0189**	**0.0189**	**0.0000**	**31.8739**	**31.8739**	**7.9500e-003**	**0.0000**	**32.0727**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8000e-004	0.0133	5.5500e-003	3.0000e-005	4.9000e-004	9.0000e-005	5.8000e-004	1.5000e-004	9.0000e-005	2.3000e-004	0.0000	2.7384	2.7384	1.9000e-004	0.0000	2.7431
Worker	2.9400e-003	2.3800e-003	0.0205	4.0000e-005	2.6300e-003	3.0000e-005	2.6600e-003	7.2000e-004	3.0000e-005	7.4000e-004	0.0000	3.2261	3.2261	1.7000e-004	0.0000	3.2304
Total	**3.7200e-003**	**0.0157**	**0.0260**	**7.0000e-005**	**3.1200e-003**	**1.2000e-004**	**3.2400e-003**	**8.7000e-004**	**1.2000e-004**	**9.7000e-004**	**0.0000**	**5.9644**	**5.9644**	**3.6000e-004**	**0.0000**	**5.9736**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0649					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.0679**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.7000e-004	1.4900e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2346	0.2346	1.0000e-005	0.0000	0.2349
Total	**2.1000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2346**	**0.2346**	**1.0000e-005**	**0.0000**	**0.2349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0649					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.0679**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.7000e-004	1.4900e-003	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.2346	0.2346	1.0000e-005	0.0000	0.2349
Total	**2.1000e-004**	**1.7000e-004**	**1.4900e-003**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.2346**	**0.2346**	**1.0000e-005**	**0.0000**	**0.2349**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0204	0.2175	0.1578	2.4000e-004		0.0122	0.0122		0.0112	0.0112	0.0000	22.2004	22.2004	6.8000e-003	0.0000	22.3705
Paving	5.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0210**	**0.2175**	**0.1578**	**2.4000e-004**		**0.0122**	**0.0122**		**0.0112**	**0.0112**	**0.0000**	**22.2004**	**22.2004**	**6.8000e-003**	**0.0000**	**22.3705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.5500e-003	0.0134	2.0000e-005	1.9500e-003	2.0000e-005	1.9600e-003	5.2000e-004	2.0000e-005	5.3000e-004	0.0000	1.8999	1.8999	1.1000e-004	0.0000	1.9027
Total	**1.8400e-003**	**1.5500e-003**	**0.0134**	**2.0000e-005**	**1.9500e-003**	**2.0000e-005**	**1.9600e-003**	**5.2000e-004**	**2.0000e-005**	**5.3000e-004**	**0.0000**	**1.8999**	**1.8999**	**1.1000e-004**	**0.0000**	**1.9027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0204	0.2175	0.1578	2.4000e-004		0.0122	0.0122		0.0112	0.0112	0.0000	22.2004	22.2004	6.8000e-003	0.0000	22.3705
Paving	5.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0210**	**0.2175**	**0.1578**	**2.4000e-004**		**0.0122**	**0.0122**		**0.0112**	**0.0112**	**0.0000**	**22.2004**	**22.2004**	**6.8000e-003**	**0.0000**	**22.3705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.5500e-003	0.0134	2.0000e-005	1.5100e-003	2.0000e-005	1.5300e-003	4.1000e-004	2.0000e-005	4.3000e-004	0.0000	1.8999	1.8999	1.1000e-004	0.0000	1.9027
Total	**1.8400e-003**	**1.5500e-003**	**0.0134**	**2.0000e-005**	**1.5100e-003**	**2.0000e-005**	**1.5300e-003**	**4.1000e-004**	**2.0000e-005**	**4.3000e-004**	**0.0000**	**1.8999**	**1.8999**	**1.1000e-004**	**0.0000**	**1.9027**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.478691	0.054374	0.195682	0.159777	0.042818	0.007921	0.007143	0.010556	0.001900	0.000600	0.032048	0.000818	0.007673
User Defined Recreational	0.478691	0.054374	0.195682	0.159777	0.042818	0.007921	0.007143	0.010556	0.001900	0.000600	0.032048	0.000818	0.007673

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.6077	5.6077	2.3000e-004	5.0000e-005	5.6278
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.6077	5.6077	2.3000e-004	5.0000e-005	5.6278
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	17600	5.6077	2.3000e-004	5.0000e-005	5.6278
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**5.6077**	**2.3000e-004**	**5.0000e-005**	**5.6278**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	17600	5.6077	2.3000e-004	5.0000e-005	5.6278
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**5.6077**	**2.3000e-004**	**5.0000e-005**	**5.6278**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0318	4.4000e-004	0.0469	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0902	0.0902	2.4000e-004	0.0000	0.0964
Unmitigated	0.0318	4.4000e-004	0.0469	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0902	0.0902	2.4000e-004	0.0000	0.0964

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0208					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4400e-003	4.4000e-004	0.0469	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0902	0.0902	2.4000e-004	0.0000	0.0964
Total	**0.0318**	**4.4000e-004**	**0.0469**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0902**	**0.0902**	**2.4000e-004**	**0.0000**	**0.0964**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0208					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.4400e-003	4.4000e-004	0.0469	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0902	0.0902	2.4000e-004	0.0000	0.0964
Total	**0.0318**	**4.4000e-004**	**0.0469**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0902**	**0.0902**	**2.4000e-004**	**0.0000**	**0.0964**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Parenthetical CALEEMOD Assumptions
For: Mammoth Creek Park West New Community Multi-Use Facilities Project
December 2016

PHASE III

- 8,000 square feet of community center facilities.
- 57 parking spaces

CONSTRUCTION

Demolition (2022)

- 23 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Concrete/Industrial Saws	8
3	Excavators	8
2	Rubber Tired Dozers	8

Grading (2022)

- 23 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Excavators	8
1	Graders	8
1	Rubber Tired Dozers	8
3	Tractors/Loaders/Backhoes	8

Building Construction (2022 - 2023)

- 176 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Cranes	7
3	Forklifts	8
1	Generator Sets	8
3	Tractors/Loaders/Backhoes	7
1	Welders	8

Paving (2022)

- 22 days.

Equipment:

Quantity	Type	Hours of Daily Operation
2	Pavers	8
2	Paving Equipment	8
2	Rollers	8

Architectural Coating (2023)

- 21 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Air Compressors	6

Multi-Use Facilities Project - Phase III Construction

Great Basin Valleys Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	57.00	Space	0.51	22,800.00	0
User Defined Recreational	8,000.00	User Defined Unit	4.90	8,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - Site acreage

Architectural Coating -

Vehicle Trips - construction run only

Area Coating -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	176.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	22.00
tblGrading	AcresOfGrading	11.50	4.90
tblLandUse	BuildingSpaceSquareFeet	0.00	8,000.00
tblLandUse	LandUseSquareFeet	0.00	8,000.00
tblLandUse	LotAcreage	0.00	4.90
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.6544	62.8960	54.4245	0.1019	6.8279	2.9974	9.8253	3.4891	2.7865	6.2756	0.0000	9,831.8516	9,831.8516	2.6196	0.0000	9,897.3416
2023	9.7971	14.8638	16.9283	0.0299	0.1967	0.7014	0.8981	0.0529	0.6600	0.7129	0.0000	2,851.0724	2,851.0724	0.6187	0.0000	2,866.5406
Maximum	**9.7971**	**62.8960**	**54.4245**	**0.1019**	**6.8279**	**2.9974**	**9.8253**	**3.4891**	**2.7865**	**6.2756**	**0.0000**	**9,831.8516**	**9,831.8516**	**2.6196**	**0.0000**	**9,897.3416**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.6544	62.8960	54.4245	0.1019	3.1211	2.9974	6.1185	1.5482	2.7865	4.3347	0.0000	9,831.8516	9,831.8516	2.6196	0.0000	9,897.3416
2023	9.7971	14.8638	16.9283	0.0299	0.1535	0.7014	0.8549	0.0423	0.6600	0.7023	0.0000	2,851.0724	2,851.0724	0.6187	0.0000	2,866.5406
Maximum	**9.7971**	**62.8960**	**54.4245**	**0.1019**	**3.1211**	**2.9974**	**6.1185**	**1.5482**	**2.7865**	**4.3347**	**0.0000**	**9,831.8516**	**9,831.8516**	**2.6196**	**0.0000**	**9,897.3416**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.38**	**0.00**	**34.97**	**55.10**	**0.00**	**27.93**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**	**0.0000**	**3.0000e-003**	**3.0000e-003**	**0.0000**	**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**	**0.0000**	**1.8843**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**	**0.0000**	**3.0000e-003**	**3.0000e-003**	**0.0000**	**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**	**0.0000**	**1.8843**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	7/1/2022	5	23	
2	Grading	Grading	6/15/2022	7/15/2022	5	23	
3	Building Construction	Building Construction	6/22/2022	2/22/2023	5	176	
4	Paving	Paving	9/1/2022	10/1/2022	5	22	
5	Architectural Coating	Architectural Coating	2/23/2023	3/23/2023	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0.51

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 12,000; Non-Residential Outdoor: 4,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	13.00	5.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0683	0.7141	1.7800e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		177.3284	177.3284	6.5000e-003		177.4907
Total	**0.1178**	**0.0683**	**0.7141**	**1.7800e-003**	**0.1916**	**1.2900e-003**	**0.1929**	**0.0508**	**1.1900e-003**	**0.0520**		**177.3284**	**177.3284**	**6.5000e-003**		**177.4907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0683	0.7141	1.7800e-003	0.1483	1.2900e-003	0.1496	0.0402	1.1900e-003	0.0414		177.3284	177.3284	6.5000e-003		177.4907
Total	**0.1178**	**0.0683**	**0.7141**	**1.7800e-003**	**0.1483**	**1.2900e-003**	**0.1496**	**0.0402**	**1.1900e-003**	**0.0414**		**177.3284**	**177.3284**	**6.5000e-003**		**177.4907**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2480	0.0000	6.2480	3.3346	0.0000	3.3346			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.2480**	**0.9409**	**7.1889**	**3.3346**	**0.8656**	**4.2002**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0683	0.7141	1.7800e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		177.3284	177.3284	6.5000e-003		177.4907
Total	**0.1178**	**0.0683**	**0.7141**	**1.7800e-003**	**0.1916**	**1.2900e-003**	**0.1929**	**0.0508**	**1.1900e-003**	**0.0520**		**177.3284**	**177.3284**	**6.5000e-003**		**177.4907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6710	0.0000	2.6710	1.4256	0.0000	1.4256			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**2.6710**	**0.9409**	**3.6119**	**1.4256**	**0.8656**	**2.2911**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0683	0.7141	1.7800e-003	0.1483	1.2900e-003	0.1496	0.0402	1.1900e-003	0.0414		177.3284	177.3284	6.5000e-003		177.4907
Total	**0.1178**	**0.0683**	**0.7141**	**1.7800e-003**	**0.1483**	**1.2900e-003**	**0.1496**	**0.0402**	**1.1900e-003**	**0.0414**		**177.3284**	**177.3284**	**6.5000e-003**		**177.4907**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0226	0.5101	0.1472	1.4400e-003	0.0307	1.1800e-003	0.0318	8.8300e-003	1.1200e-003	9.9500e-003		150.3491	150.3491	7.7200e-003		150.5423
Worker	0.1021	0.0592	0.6189	1.5400e-003	0.1661	1.1200e-003	0.1672	0.0440	1.0300e-003	0.0451		153.6846	153.6846	5.6300e-003		153.8253
Total	**0.1247**	**0.5693**	**0.7661**	**2.9800e-003**	**0.1967**	**2.3000e-003**	**0.1990**	**0.0529**	**2.1500e-003**	**0.0550**		**304.0337**	**304.0337**	**0.0134**		**304.3676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0226	0.5101	0.1472	1.4400e-003	0.0250	1.1800e-003	0.0262	7.4400e-003	1.1200e-003	8.5600e-003		150.3491	150.3491	7.7200e-003		150.5423
Worker	0.1021	0.0592	0.6189	1.5400e-003	0.1285	1.1200e-003	0.1296	0.0348	1.0300e-003	0.0359		153.6846	153.6846	5.6300e-003		153.8253
Total	**0.1247**	**0.5693**	**0.7661**	**2.9800e-003**	**0.1535**	**2.3000e-003**	**0.1558**	**0.0423**	**2.1500e-003**	**0.0444**		**304.0337**	**304.0337**	**0.0134**		**304.3676**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0186	0.4262	0.1291	1.4200e-003	0.0307	6.1000e-004	0.0313	8.8300e-003	5.8000e-004	9.4200e-003		147.8955	147.8955	5.9200e-003		148.0435
Worker	0.0955	0.0527	0.5552	1.4900e-003	0.1661	1.0800e-003	0.1671	0.0440	1.0000e-003	0.0450		147.9669	147.9669	4.9600e-003		148.0910
Total	**0.1141**	**0.4789**	**0.6843**	**2.9100e-003**	**0.1967**	**1.6900e-003**	**0.1984**	**0.0529**	**1.5800e-003**	**0.0545**		**295.8624**	**295.8624**	**0.0109**		**296.1345**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0186	0.4262	0.1291	1.4200e-003	0.0250	6.1000e-004	0.0256	7.4400e-003	5.8000e-004	8.0200e-003		147.8955	147.8955	5.9200e-003		148.0435
Worker	0.0955	0.0527	0.5552	1.4900e-003	0.1285	1.0800e-003	0.1296	0.0348	1.0000e-003	0.0358		147.9669	147.9669	4.9600e-003		148.0910
Total	**0.1141**	**0.4789**	**0.6843**	**2.9100e-003**	**0.1535**	**1.6900e-003**	**0.1552**	**0.0423**	**1.5800e-003**	**0.0438**		**295.8624**	**295.8624**	**0.0109**		**296.1345**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1636**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0683	0.7141	1.7800e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		177.3284	177.3284	6.5000e-003		177.4907
Total	**0.1178**	**0.0683**	**0.7141**	**1.7800e-003**	**0.1916**	**1.2900e-003**	**0.1929**	**0.0508**	**1.1900e-003**	**0.0520**		**177.3284**	**177.3284**	**6.5000e-003**		**177.4907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1636**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0683	0.7141	1.7800e-003	0.1483	1.2900e-003	0.1496	0.0402	1.1900e-003	0.0414		177.3284	177.3284	6.5000e-003		177.4907
Total	**0.1178**	**0.0683**	**0.7141**	**1.7800e-003**	**0.1483**	**1.2900e-003**	**0.1496**	**0.0402**	**1.1900e-003**	**0.0414**		**177.3284**	**177.3284**	**6.5000e-003**		**177.4907**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.5834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**9.7751**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0220	0.0122	0.1281	3.4000e-004	0.0383	2.5000e-004	0.0386	0.0102	2.3000e-004	0.0104		34.1462	34.1462	1.1500e-003		34.1749
Total	**0.0220**	**0.0122**	**0.1281**	**3.4000e-004**	**0.0383**	**2.5000e-004**	**0.0386**	**0.0102**	**2.3000e-004**	**0.0104**		**34.1462**	**34.1462**	**1.1500e-003**		**34.1749**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.5834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**9.7751**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0220	0.0122	0.1281	3.4000e-004	0.0297	2.5000e-004	0.0299	8.0400e-003	2.3000e-004	8.2700e-003		34.1462	34.1462	1.1500e-003		34.1749
Total	**0.0220**	**0.0122**	**0.1281**	**3.4000e-004**	**0.0297**	**2.5000e-004**	**0.0299**	**8.0400e-003**	**2.3000e-004**	**8.2700e-003**		**34.1462**	**34.1462**	**1.1500e-003**		**34.1749**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230
User Defined Recreational	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Unmitigated	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1793					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0797	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**		**3.0000e-003**	**3.0000e-003**		**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**		**1.8843**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1793					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0797	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**		**3.0000e-003**	**3.0000e-003**		**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**		**1.8843**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Phase III Construction

Great Basin Valleys Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	57.00	Space	0.51	22,800.00	0
User Defined Recreational	8,000.00	User Defined Unit	4.90	8,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - Site acreage

Architectural Coating -

Vehicle Trips - construction run only

Area Coating -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	176.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	22.00
tblGrading	AcresOfGrading	11.50	4.90
tblLandUse	BuildingSpaceSquareFeet	0.00	8,000.00
tblLandUse	LandUseSquareFeet	0.00	8,000.00
tblLandUse	LotAcreage	0.00	4.90
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.7554	62.8934	54.4481	0.1019	6.8279	2.9975	9.8254	3.4891	2.7866	6.2757	0.0000	9,824.0920	9,824.0920	2.6205	0.0000	9,889.6035
2023	9.8036	14.8575	16.9429	0.0298	0.1967	0.7015	0.8982	0.0529	0.6600	0.7129	0.0000	2,844.3443	2,844.3443	0.6194	0.0000	2,859.8280
Maximum	**9.8036**	**62.8934**	**54.4481**	**0.1019**	**6.8279**	**2.9975**	**9.8254**	**3.4891**	**2.7866**	**6.2757**	**0.0000**	**9,824.0920**	**9,824.0920**	**2.6205**	**0.0000**	**9,889.6035**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.7554	62.8934	54.4481	0.1019	3.1211	2.9975	6.1186	1.5482	2.7866	4.3348	0.0000	9,824.0920	9,824.0920	2.6205	0.0000	9,889.6035
2023	9.8036	14.8575	16.9429	0.0298	0.1535	0.7015	0.8550	0.0423	0.6600	0.7023	0.0000	2,844.3443	2,844.3443	0.6194	0.0000	2,859.8279
Maximum	**9.8036**	**62.8934**	**54.4481**	**0.1019**	**3.1211**	**2.9975**	**6.1186**	**1.5482**	**2.7866**	**4.3348**	**0.0000**	**9,824.0920**	**9,824.0920**	**2.6205**	**0.0000**	**9,889.6035**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.38**	**0.00**	**34.97**	**55.10**	**0.00**	**27.92**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**	**0.0000**	**3.0000e-003**	**3.0000e-003**	**0.0000**	**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**	**0.0000**	**1.8843**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**	**0.0000**	**3.0000e-003**	**3.0000e-003**	**0.0000**	**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**	**0.0000**	**1.8843**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	7/1/2022	5	23	
2	Grading	Grading	6/15/2022	7/15/2022	5	23	
3	Building Construction	Building Construction	6/22/2022	2/22/2023	5	176	
4	Paving	Paving	9/1/2022	10/1/2022	5	22	
5	Architectural Coating	Architectural Coating	2/23/2023	3/23/2023	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0.51

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 12,000; Non-Residential Outdoor: 4,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	13.00	5.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1523	0.0709	0.7166	1.7800e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		176.8624	176.8624	6.5000e-003		177.0250
Total	**0.1523**	**0.0709**	**0.7166**	**1.7800e-003**	**0.1916**	**1.2900e-003**	**0.1929**	**0.0508**	**1.1900e-003**	**0.0520**		**176.8624**	**176.8624**	**6.5000e-003**		**177.0250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.0000**	**1.2427**	**1.2427**	**0.0000**	**1.1553**	**1.1553**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1523	0.0709	0.7166	1.7800e-003	0.1483	1.2900e-003	0.1496	0.0402	1.1900e-003	0.0414		176.8624	176.8624	6.5000e-003		177.0250
Total	**0.1523**	**0.0709**	**0.7166**	**1.7800e-003**	**0.1483**	**1.2900e-003**	**0.1496**	**0.0402**	**1.1900e-003**	**0.0414**		**176.8624**	**176.8624**	**6.5000e-003**		**177.0250**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2480	0.0000	6.2480	3.3346	0.0000	3.3346			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.2480**	**0.9409**	**7.1889**	**3.3346**	**0.8656**	**4.2002**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1523	0.0709	0.7166	1.7800e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		176.8624	176.8624	6.5000e-003		177.0250
Total	**0.1523**	**0.0709**	**0.7166**	**1.7800e-003**	**0.1916**	**1.2900e-003**	**0.1929**	**0.0508**	**1.1900e-003**	**0.0520**		**176.8624**	**176.8624**	**6.5000e-003**		**177.0250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6710	0.0000	2.6710	1.4256	0.0000	1.4256			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**2.6710**	**0.9409**	**3.6119**	**1.4256**	**0.8656**	**2.2911**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1523	0.0709	0.7166	1.7800e-003	0.1483	1.2900e-003	0.1496	0.0402	1.1900e-003	0.0414		176.8624	176.8624	6.5000e-003		177.0250
Total	**0.1523**	**0.0709**	**0.7166**	**1.7800e-003**	**0.1483**	**1.2900e-003**	**0.1496**	**0.0402**	**1.1900e-003**	**0.0414**		**176.8624**	**176.8624**	**6.5000e-003**		**177.0250**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0246	0.4999	0.1638	1.3800e-003	0.0307	1.2400e-003	0.0319	8.8300e-003	1.1900e-003	0.0100		143.9254	143.9254	8.5500e-003		144.1392
Worker	0.1320	0.0615	0.6210	1.5400e-003	0.1661	1.1200e-003	0.1672	0.0440	1.0300e-003	0.0451		153.2807	153.2807	5.6400e-003		153.4217
Total	**0.1566**	**0.5613**	**0.7848**	**2.9200e-003**	**0.1967**	**2.3600e-003**	**0.1991**	**0.0529**	**2.2200e-003**	**0.0551**		**297.2061**	**297.2061**	**0.0142**		**297.5609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0246	0.4999	0.1638	1.3800e-003	0.0250	1.2400e-003	0.0262	7.4400e-003	1.1900e-003	8.6300e-003		143.9254	143.9254	8.5500e-003		144.1392
Worker	0.1320	0.0615	0.6210	1.5400e-003	0.1285	1.1200e-003	0.1296	0.0348	1.0300e-003	0.0359		153.2807	153.2807	5.6400e-003		153.4217
Total	**0.1566**	**0.5613**	**0.7848**	**2.9200e-003**	**0.1535**	**2.3600e-003**	**0.1559**	**0.0423**	**2.2200e-003**	**0.0445**		**297.2061**	**297.2061**	**0.0142**		**297.5609**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0204	0.4178	0.1420	1.3600e-003	0.0307	6.5000e-004	0.0313	8.8300e-003	6.2000e-004	9.4500e-003		141.5561	141.5561	6.5300e-003		141.7194
Worker	0.1236	0.0548	0.5569	1.4800e-003	0.1661	1.0800e-003	0.1671	0.0440	1.0000e-003	0.0450		147.5783	147.5783	4.9700e-003		147.7025
Total	**0.1440**	**0.4726**	**0.6989**	**2.8400e-003**	**0.1967**	**1.7300e-003**	**0.1984**	**0.0529**	**1.6200e-003**	**0.0545**		**289.1343**	**289.1343**	**0.0115**		**289.4219**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0204	0.4178	0.1420	1.3600e-003	0.0250	6.5000e-004	0.0256	7.4400e-003	6.2000e-004	8.0600e-003		141.5561	141.5561	6.5300e-003		141.7194
Worker	0.1236	0.0548	0.5569	1.4800e-003	0.1285	1.0800e-003	0.1296	0.0348	1.0000e-003	0.0358		147.5783	147.5783	4.9700e-003		147.7025
Total	**0.1440**	**0.4726**	**0.6989**	**2.8400e-003**	**0.1535**	**1.7300e-003**	**0.1552**	**0.0423**	**1.6200e-003**	**0.0439**		**289.1343**	**289.1343**	**0.0115**		**289.4219**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1636**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1523	0.0709	0.7166	1.7800e-003	0.1916	1.2900e-003	0.1929	0.0508	1.1900e-003	0.0520		176.8624	176.8624	6.5000e-003		177.0250
Total	**0.1523**	**0.0709**	**0.7166**	**1.7800e-003**	**0.1916**	**1.2900e-003**	**0.1929**	**0.0508**	**1.1900e-003**	**0.0520**		**176.8624**	**176.8624**	**6.5000e-003**		**177.0250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0607					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1636**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1523	0.0709	0.7166	1.7800e-003	0.1483	1.2900e-003	0.1496	0.0402	1.1900e-003	0.0414		176.8624	176.8624	6.5000e-003		177.0250
Total	**0.1523**	**0.0709**	**0.7166**	**1.7800e-003**	**0.1483**	**1.2900e-003**	**0.1496**	**0.0402**	**1.1900e-003**	**0.0414**		**176.8624**	**176.8624**	**6.5000e-003**		**177.0250**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.5834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**9.7751**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0285	0.0126	0.1285	3.4000e-004	0.0383	2.5000e-004	0.0386	0.0102	2.3000e-004	0.0104		34.0565	34.0565	1.1500e-003		34.0852
Total	**0.0285**	**0.0126**	**0.1285**	**3.4000e-004**	**0.0383**	**2.5000e-004**	**0.0386**	**0.0102**	**2.3000e-004**	**0.0104**		**34.0565**	**34.0565**	**1.1500e-003**		**34.0852**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.5834					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**9.7751**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0285	0.0126	0.1285	3.4000e-004	0.0297	2.5000e-004	0.0299	8.0400e-003	2.3000e-004	8.2700e-003		34.0565	34.0565	1.1500e-003		34.0852
Total	**0.0285**	**0.0126**	**0.1285**	**3.4000e-004**	**0.0297**	**2.5000e-004**	**0.0299**	**8.0400e-003**	**2.3000e-004**	**8.2700e-003**		**34.0565**	**34.0565**	**1.1500e-003**		**34.0852**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230
User Defined Recreational	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Unmitigated	0.3141	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1793					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0797	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**		**3.0000e-003**	**3.0000e-003**		**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**		**1.8843**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1793					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0797	7.8100e-003	0.8340	6.0000e-005		3.0000e-003	3.0000e-003		3.0000e-003	3.0000e-003		1.7633	1.7633	4.8400e-003		1.8843
Total	**0.3141**	**7.8100e-003**	**0.8340**	**6.0000e-005**		**3.0000e-003**	**3.0000e-003**		**3.0000e-003**	**3.0000e-003**		**1.7633**	**1.7633**	**4.8400e-003**		**1.8843**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Phase III Construction

Great Basin Valleys Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	57.00	Space	0.51	22,800.00	0
User Defined Recreational	8,000.00	User Defined Unit	4.90	8,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site acreage

Construction Phase - anticipated schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Demolition -

Grading - Site acreage

Architectural Coating -

Vehicle Trips - construction run only

Area Coating -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	176.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	22.00
tblGrading	AcresOfGrading	11.50	4.90
tblLandUse	BuildingSpaceSquareFeet	0.00	8,000.00
tblLandUse	LandUseSquareFeet	0.00	8,000.00
tblLandUse	LotAcreage	0.00	4.90
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1962	1.7784	1.7794	3.1500e-003	0.0913	0.0874	0.1787	0.0436	0.0817	0.1253	0.0000	274.6766	274.6766	0.0672	0.0000	276.3553
2023	0.1350	0.2965	0.3421	6.0000e-004	4.0100e-003	0.0141	0.0181	1.0800e-003	0.0133	0.0144	0.0000	51.9832	51.9832	0.0108	0.0000	52.2542
Maximum	**0.1962**	**1.7784**	**1.7794**	**3.1500e-003**	**0.0913**	**0.0874**	**0.1787**	**0.0436**	**0.0817**	**0.1253**	**0.0000**	**274.6766**	**274.6766**	**0.0672**	**0.0000**	**276.3553**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1962	1.7784	1.7794	3.1500e-003	0.0459	0.0874	0.1333	0.0206	0.0817	0.1023	0.0000	274.6763	274.6763	0.0672	0.0000	276.3550
2023	0.1350	0.2965	0.3421	6.0000e-004	3.1300e-003	0.0141	0.0172	8.6000e-004	0.0133	0.0142	0.0000	51.9831	51.9831	0.0108	0.0000	52.2541
Maximum	**0.1962**	**1.7784**	**1.7794**	**3.1500e-003**	**0.0459**	**0.0874**	**0.1333**	**0.0206**	**0.0817**	**0.1023**	**0.0000**	**274.6763**	**274.6763**	**0.0672**	**0.0000**	**276.3550**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**48.58**	**0.00**	**23.53**	**52.03**	**0.00**	**16.64**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
23	**4-12-2022**	**7-11-2022**	0.6664	0.6664
24	**7-12-2022**	**10-11-2022**	0.7630	0.7630
25	**10-12-2022**	**1-11-2023**	0.5870	0.5870
26	**1-12-2023**	**4-11-2023**	0.3638	0.3638
		Highest	0.7630	0.7630

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0500	7.0000e-004	0.0751	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.1440	0.1440	4.0000e-004	0.0000	0.1538
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3928	6.3928	2.6000e-004	5.0000e-005	6.4157
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0500**	**7.0000e-004**	**0.0751**	**1.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**6.5368**	**6.5368**	**6.6000e-004**	**5.0000e-005**	**6.5695**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0500	7.0000e-004	0.0751	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.1440	0.1440	4.0000e-004	0.0000	0.1538
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.3928	6.3928	2.6000e-004	5.0000e-005	6.4157
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0500**	**7.0000e-004**	**0.0751**	**1.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**6.5368**	**6.5368**	**6.6000e-004**	**5.0000e-005**	**6.5695**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	7/1/2022	5	23	
2	Grading	Grading	6/15/2022	7/15/2022	5	23	
3	Building Construction	Building Construction	6/22/2022	2/22/2023	5	176	
4	Paving	Paving	9/1/2022	10/1/2022	5	22	
5	Architectural Coating	Architectural Coating	2/23/2023	3/23/2023	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.9

Acres of Paving: 0.51

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 12,000; Non-Residential Outdoor: 4,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	13.00	5.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0304	0.2958	0.2368	4.5000e-004		0.0143	0.0143		0.0133	0.0133	0.0000	39.0888	39.0888	0.0110	0.0000	39.3633
Total	**0.0304**	**0.2958**	**0.2368**	**4.5000e-004**	**0.0000**	**0.0143**	**0.0143**	**0.0000**	**0.0133**	**0.0133**	**0.0000**	**39.0888**	**39.0888**	**0.0110**	**0.0000**	**39.3633**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	9.2000e-004	8.1000e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.7731	1.7731	7.0000e-005	0.0000	1.7747
Total	**1.3800e-003**	**9.2000e-004**	**8.1000e-003**	**2.0000e-005**	**2.1300e-003**	**1.0000e-005**	**2.1500e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.7731**	**1.7731**	**7.0000e-005**	**0.0000**	**1.7747**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0304	0.2958	0.2368	4.5000e-004		0.0143	0.0143		0.0133	0.0133	0.0000	39.0887	39.0887	0.0110	0.0000	39.3632
Total	**0.0304**	**0.2958**	**0.2368**	**4.5000e-004**	**0.0000**	**0.0143**	**0.0143**	**0.0000**	**0.0133**	**0.0133**	**0.0000**	**39.0887**	**39.0887**	**0.0110**	**0.0000**	**39.3632**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	9.2000e-004	8.1000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6700e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.7731	1.7731	7.0000e-005	0.0000	1.7747
Total	**1.3800e-003**	**9.2000e-004**	**8.1000e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6700e-003**	**4.5000e-004**	**1.0000e-005**	**4.6000e-004**	**0.0000**	**1.7731**	**1.7731**	**7.0000e-005**	**0.0000**	**1.7747**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0719	0.0000	0.0719	0.0384	0.0000	0.0384	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2398	0.1756	3.4000e-004		0.0108	0.0108		9.9500e-003	9.9500e-003	0.0000	29.9630	29.9630	9.6900e-003	0.0000	30.2053
Total	**0.0224**	**0.2398**	**0.1756**	**3.4000e-004**	**0.0719**	**0.0108**	**0.0827**	**0.0384**	**9.9500e-003**	**0.0483**	**0.0000**	**29.9630**	**29.9630**	**9.6900e-003**	**0.0000**	**30.2053**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	9.2000e-004	8.1000e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.7731	1.7731	7.0000e-005	0.0000	1.7747
Total	**1.3800e-003**	**9.2000e-004**	**8.1000e-003**	**2.0000e-005**	**2.1300e-003**	**1.0000e-005**	**2.1500e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.7731**	**1.7731**	**7.0000e-005**	**0.0000**	**1.7747**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0307	0.0000	0.0307	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2398	0.1756	3.4000e-004		0.0108	0.0108		9.9500e-003	9.9500e-003	0.0000	29.9630	29.9630	9.6900e-003	0.0000	30.2052
Total	**0.0224**	**0.2398**	**0.1756**	**3.4000e-004**	**0.0307**	**0.0108**	**0.0415**	**0.0164**	**9.9500e-003**	**0.0263**	**0.0000**	**29.9630**	**29.9630**	**9.6900e-003**	**0.0000**	**30.2052**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	9.2000e-004	8.1000e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6700e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.7731	1.7731	7.0000e-005	0.0000	1.7747
Total	**1.3800e-003**	**9.2000e-004**	**8.1000e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6700e-003**	**4.5000e-004**	**1.0000e-005**	**4.6000e-004**	**0.0000**	**1.7731**	**1.7731**	**7.0000e-005**	**0.0000**	**1.7747**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1177	1.0775	1.1291	1.8600e-003		0.0558	0.0558		0.0525	0.0525	0.0000	159.8904	159.8904	0.0383	0.0000	160.8481
Total	**0.1177**	**1.0775**	**1.1291**	**1.8600e-003**		**0.0558**	**0.0558**		**0.0525**	**0.0525**	**0.0000**	**159.8904**	**159.8904**	**0.0383**	**0.0000**	**160.8481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6200e-003	0.0354	0.0114	1.0000e-004	2.0600e-003	8.0000e-005	2.1400e-003	6.0000e-004	8.0000e-005	6.8000e-004	0.0000	9.2422	9.2422	5.1000e-004	0.0000	9.2550
Worker	7.1900e-003	4.7900e-003	0.0421	1.0000e-004	0.0111	8.0000e-005	0.0112	2.9500e-003	7.0000e-005	3.0200e-003	0.0000	9.2199	9.2199	3.4000e-004	0.0000	9.2284
Total	**8.8100e-003**	**0.0402**	**0.0535**	**2.0000e-004**	**0.0132**	**1.6000e-004**	**0.0133**	**3.5500e-003**	**1.5000e-004**	**3.7000e-003**	**0.0000**	**18.4621**	**18.4621**	**8.5000e-004**	**0.0000**	**18.4834**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1177	1.0775	1.1291	1.8600e-003		0.0558	0.0558		0.0525	0.0525	0.0000	159.8902	159.8902	0.0383	0.0000	160.8479
Total	**0.1177**	**1.0775**	**1.1291**	**1.8600e-003**		**0.0558**	**0.0558**		**0.0525**	**0.0525**	**0.0000**	**159.8902**	**159.8902**	**0.0383**	**0.0000**	**160.8479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6200e-003	0.0354	0.0114	1.0000e-004	1.6800e-003	8.0000e-005	1.7700e-003	5.0000e-004	8.0000e-005	5.8000e-004	0.0000	9.2422	9.2422	5.1000e-004	0.0000	9.2550
Worker	7.1900e-003	4.7900e-003	0.0421	1.0000e-004	8.5900e-003	8.0000e-005	8.6700e-003	2.3400e-003	7.0000e-005	2.4100e-003	0.0000	9.2199	9.2199	3.4000e-004	0.0000	9.2284
Total	**8.8100e-003**	**0.0402**	**0.0535**	**2.0000e-004**	**0.0103**	**1.6000e-004**	**0.0104**	**2.8400e-003**	**1.5000e-004**	**2.9900e-003**	**0.0000**	**18.4621**	**18.4621**	**8.5000e-004**	**0.0000**	**18.4834**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0299	0.2733	0.3086	5.1000e-004		0.0133	0.0133		0.0125	0.0125	0.0000	44.0429	44.0429	0.0105	0.0000	44.3048
Total	**0.0299**	**0.2733**	**0.3086**	**5.1000e-004**		**0.0133**	**0.0133**		**0.0125**	**0.0125**	**0.0000**	**44.0429**	**44.0429**	**0.0105**	**0.0000**	**44.3048**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7000e-004	8.1400e-003	2.7400e-003	3.0000e-005	5.7000e-004	1.0000e-005	5.8000e-004	1.6000e-004	1.0000e-005	1.8000e-004	0.0000	2.5033	2.5033	1.1000e-004	0.0000	2.5060
Worker	1.8500e-003	1.1800e-003	0.0104	3.0000e-005	3.0500e-003	2.0000e-005	3.0700e-003	8.1000e-004	2.0000e-005	8.3000e-004	0.0000	2.4444	2.4444	8.0000e-005	0.0000	2.4464
Total	**2.2200e-003**	**9.3200e-003**	**0.0131**	**6.0000e-005**	**3.6200e-003**	**3.0000e-005**	**3.6500e-003**	**9.7000e-004**	**3.0000e-005**	**1.0100e-003**	**0.0000**	**4.9476**	**4.9476**	**1.9000e-004**	**0.0000**	**4.9524**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0299	0.2733	0.3086	5.1000e-004		0.0133	0.0133		0.0125	0.0125	0.0000	44.0429	44.0429	0.0105	0.0000	44.3048
Total	**0.0299**	**0.2733**	**0.3086**	**5.1000e-004**		**0.0133**	**0.0133**		**0.0125**	**0.0125**	**0.0000**	**44.0429**	**44.0429**	**0.0105**	**0.0000**	**44.3048**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7000e-004	8.1400e-003	2.7400e-003	3.0000e-005	4.6000e-004	1.0000e-005	4.8000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	2.5033	2.5033	1.1000e-004	0.0000	2.5060
Worker	1.8500e-003	1.1800e-003	0.0104	3.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.4444	2.4444	8.0000e-005	0.0000	2.4464
Total	**2.2200e-003**	**9.3200e-003**	**0.0131**	**6.0000e-005**	**2.8300e-003**	**3.0000e-005**	**2.8700e-003**	**7.8000e-004**	**3.0000e-005**	**8.1000e-004**	**0.0000**	**4.9476**	**4.9476**	**1.9000e-004**	**0.0000**	**4.9524**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0121	0.1224	0.1604	2.5000e-004		6.2500e-003	6.2500e-003		5.7500e-003	5.7500e-003	0.0000	22.0303	22.0303	7.1300e-003	0.0000	22.2084
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.1224**	**0.1604**	**2.5000e-004**		**6.2500e-003**	**6.2500e-003**		**5.7500e-003**	**5.7500e-003**	**0.0000**	**22.0303**	**22.0303**	**7.1300e-003**	**0.0000**	**22.2084**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3200e-003	8.8000e-004	7.7500e-003	2.0000e-005	2.0400e-003	1.0000e-005	2.0500e-003	5.4000e-004	1.0000e-005	5.6000e-004	0.0000	1.6960	1.6960	6.0000e-005	0.0000	1.6975
Total	**1.3200e-003**	**8.8000e-004**	**7.7500e-003**	**2.0000e-005**	**2.0400e-003**	**1.0000e-005**	**2.0500e-003**	**5.4000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.6960**	**1.6960**	**6.0000e-005**	**0.0000**	**1.6975**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0121	0.1224	0.1604	2.5000e-004		6.2500e-003	6.2500e-003		5.7500e-003	5.7500e-003	0.0000	22.0303	22.0303	7.1300e-003	0.0000	22.2084
Paving	6.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.1224**	**0.1604**	**2.5000e-004**		**6.2500e-003**	**6.2500e-003**		**5.7500e-003**	**5.7500e-003**	**0.0000**	**22.0303**	**22.0303**	**7.1300e-003**	**0.0000**	**22.2084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3200e-003	8.8000e-004	7.7500e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.6000e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.6960	1.6960	6.0000e-005	0.0000	1.6975
Total	**1.3200e-003**	**8.8000e-004**	**7.7500e-003**	**2.0000e-005**	**1.5800e-003**	**1.0000e-005**	**1.6000e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.6960**	**1.6960**	**6.0000e-005**	**0.0000**	**1.6975**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0100e-003	0.0137	0.0190	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.6809	2.6809	1.6000e-004	0.0000	2.6849
Total	**0.1026**	**0.0137**	**0.0190**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.6809**	**2.6809**	**1.6000e-004**	**0.0000**	**2.6849**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.3200e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3117	0.3117	1.0000e-005	0.0000	0.3120
Total	**2.4000e-004**	**1.5000e-004**	**1.3200e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**3.9000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3117**	**0.3117**	**1.0000e-005**	**0.0000**	**0.3120**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0100e-003	0.0137	0.0190	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.6809	2.6809	1.6000e-004	0.0000	2.6849
Total	**0.1026**	**0.0137**	**0.0190**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.6809**	**2.6809**	**1.6000e-004**	**0.0000**	**2.6849**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.3200e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.3117	0.3117	1.0000e-005	0.0000	0.3120
Total	**2.4000e-004**	**1.5000e-004**	**1.3200e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.3117**	**0.3117**	**1.0000e-005**	**0.0000**	**0.3120**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230
User Defined Recreational	0.470041	0.057232	0.195774	0.162813	0.045016	0.008272	0.006982	0.010407	0.001851	0.000619	0.031937	0.000825	0.008230

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.3928	6.3928	2.6000e-004	5.0000e-005	6.4157
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.3928	6.3928	2.6000e-004	5.0000e-005	6.4157
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	20064	6.3928	2.6000e-004	5.0000e-005	6.4157
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**6.3928**	**2.6000e-004**	**5.0000e-005**	**6.4157**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	20064	6.3928	2.6000e-004	5.0000e-005	6.4157
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**6.3928**	**2.6000e-004**	**5.0000e-005**	**6.4157**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0500	7.0000e-004	0.0751	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.1440	0.1440	4.0000e-004	0.0000	0.1538
Unmitigated	0.0500	7.0000e-004	0.0751	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.1440	0.1440	4.0000e-004	0.0000	0.1538

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0101					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.1700e-003	7.0000e-004	0.0751	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.1440	0.1440	4.0000e-004	0.0000	0.1538
Total	**0.0500**	**7.0000e-004**	**0.0751**	**1.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**0.1440**	**0.1440**	**4.0000e-004**	**0.0000**	**0.1538**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0101					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0327					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.1700e-003	7.0000e-004	0.0751	1.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	0.1440	0.1440	4.0000e-004	0.0000	0.1538
Total	**0.0500**	**7.0000e-004**	**0.0751**	**1.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**0.1440**	**0.1440**	**4.0000e-004**	**0.0000**	**0.1538**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Operational

Great Basin Valleys Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	13.00	1000sqft	0.30	13,000.00	0
Parking Lot	107.00	Space	0.96	42,800.00	0
Recreational Swimming Pool	30.00	1000sqft	0.69	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Multi-Use facilities

Construction Phase - Operational Run Only

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading - 6,500 yards of excavation and export

Vehicle Trips - Trip rate per Traffic Study

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Waste Mitigation -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	BuildingSpaceSquareFeet	0.00	30,000.00
tblLandUse	RecSwimmingAreaAllowEdit	1.00	0.00
tblLandUse	RecSwimmingAreaSquareFeet	30,000.00	0.00
tblVehicleTrips	ST_TR	0.00	5.75
tblVehicleTrips	ST_TR	9.10	4.51
tblVehicleTrips	SU_TR	0.00	5.75
tblVehicleTrips	SU_TR	13.60	4.51
tblVehicleTrips	WD_TR	27.92	5.75
tblVehicleTrips	WD_TR	33.82	4.51

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Energy	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Mobile	0.6382	2.8704	5.6813	0.0132	0.8271	0.0163	0.8434	0.2217	0.0154	0.2370		1,334.1071	1,334.1071	0.0858		1,336.2519
Total	**1.8602**	**2.9071**	**5.7275**	**0.0134**	**0.8271**	**0.0191**	**0.8462**	**0.2217**	**0.0182**	**0.2399**		**1,377.9691**	**1,377.9691**	**0.0867**	**8.0000e-004**	**1,380.3766**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Energy	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Mobile	0.6382	2.8704	5.6813	0.0132	0.8271	0.0163	0.8434	0.2217	0.0154	0.2370		1,334.1071	1,334.1071	0.0858		1,336.2519
Total	**1.8602**	**2.9071**	**5.7275**	**0.0134**	**0.8271**	**0.0191**	**0.8462**	**0.2217**	**0.0182**	**0.2399**		**1,377.9691**	**1,377.9691**	**0.0867**	**8.0000e-004**	**1,380.3766**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6382	2.8704	5.6813	0.0132	0.8271	0.0163	0.8434	0.2217	0.0154	0.2370		1,334.1071	1,334.1071	0.0858		1,336.2519
Unmitigated	0.6382	2.8704	5.6813	0.0132	0.8271	0.0163	0.8434	0.2217	0.0154	0.2370		1,334.1071	1,334.1071	0.0858		1,336.2519

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	74.75	74.75	74.75	142,895	142,895
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	135.30	135.30	135.30	244,525	244,525
Total	210.05	210.05	210.05	387,420	387,420

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776
Parking Lot	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776
Recreational Swimming Pool	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
NaturalGas Unmitigated	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	372.548	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.0200e-003**	**0.0365**	**0.0307**	**2.2000e-004**		**2.7800e-003**	**2.7800e-003**		**2.7800e-003**	**2.7800e-003**		**43.8292**	**43.8292**	**8.4000e-004**	**8.0000e-004**	**44.0896**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	0.372548	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.0200e-003**	**0.0365**	**0.0307**	**2.2000e-004**		**2.7800e-003**	**2.7800e-003**		**2.7800e-003**	**2.7800e-003**		**43.8292**	**43.8292**	**8.4000e-004**	**8.0000e-004**	**44.0896**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Unmitigated	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4800e-003	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Total	**1.2180**	**1.5000e-004**	**0.0155**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0328**	**0.0328**	**9.0000e-005**		**0.0351**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4800e-003	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Total	**1.2180**	**1.5000e-004**	**0.0155**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0328**	**0.0328**	**9.0000e-005**		**0.0351**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Operational

Great Basin Valleys Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	13.00	1000sqft	0.30	13,000.00	0
Parking Lot	107.00	Space	0.96	42,800.00	0
Recreational Swimming Pool	30.00	1000sqft	0.69	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Multi-Use facilities

Construction Phase - Operational Run Only

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading - 6,500 yards of excavation and export

Vehicle Trips - Trip rate per Traffic Study

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Waste Mitigation -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	BuildingSpaceSquareFeet	0.00	30,000.00
tblLandUse	RecSwimmingAreaAllowEdit	1.00	0.00
tblLandUse	RecSwimmingAreaSquareFeet	30,000.00	0.00
tblVehicleTrips	ST_TR	0.00	5.75
tblVehicleTrips	ST_TR	9.10	4.51
tblVehicleTrips	SU_TR	0.00	5.75
tblVehicleTrips	SU_TR	13.60	4.51
tblVehicleTrips	WD_TR	27.92	5.75
tblVehicleTrips	WD_TR	33.82	4.51

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Energy	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Mobile	0.7808	2.8408	5.8040	0.0130	0.8271	0.0167	0.8438	0.2217	0.0158	0.2374		1,307.1092	1,307.1092	0.0891		1,309.3374
Total	**2.0028**	**2.8774**	**5.8502**	**0.0132**	**0.8271**	**0.0195**	**0.8466**	**0.2217**	**0.0186**	**0.2403**		**1,350.9712**	**1,350.9712**	**0.0901**	**8.0000e-004**	**1,353.4621**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Energy	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Mobile	0.7808	2.8408	5.8040	0.0130	0.8271	0.0167	0.8438	0.2217	0.0158	0.2374		1,307.1092	1,307.1092	0.0891		1,309.3374
Total	**2.0028**	**2.8774**	**5.8502**	**0.0132**	**0.8271**	**0.0195**	**0.8466**	**0.2217**	**0.0186**	**0.2403**		**1,350.9712**	**1,350.9712**	**0.0901**	**8.0000e-004**	**1,353.4621**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7808	2.8408	5.8040	0.0130	0.8271	0.0167	0.8438	0.2217	0.0158	0.2374		1,307.1092	1,307.1092	0.0891		1,309.3374
Unmitigated	0.7808	2.8408	5.8040	0.0130	0.8271	0.0167	0.8438	0.2217	0.0158	0.2374		1,307.1092	1,307.1092	0.0891		1,309.3374

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	74.75	74.75	74.75	142,895	142,895
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	135.30	135.30	135.30	244,525	244,525
Total	210.05	210.05	210.05	387,420	387,420

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776
Parking Lot	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776
Recreational Swimming Pool	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
NaturalGas Unmitigated	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	372.548	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.0200e-003**	**0.0365**	**0.0307**	**2.2000e-004**		**2.7800e-003**	**2.7800e-003**		**2.7800e-003**	**2.7800e-003**		**43.8292**	**43.8292**	**8.4000e-004**	**8.0000e-004**	**44.0896**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Government (Civic Center)	0.372548	4.0200e-003	0.0365	0.0307	2.2000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003		43.8292	43.8292	8.4000e-004	8.0000e-004	44.0896
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.0200e-003**	**0.0365**	**0.0307**	**2.2000e-004**		**2.7800e-003**	**2.7800e-003**		**2.7800e-003**	**2.7800e-003**		**43.8292**	**43.8292**	**8.4000e-004**	**8.0000e-004**	**44.0896**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Unmitigated	1.2180	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4800e-003	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Total	**1.2180**	**1.5000e-004**	**0.0155**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0328**	**0.0328**	**9.0000e-005**		**0.0351**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4800e-003	1.5000e-004	0.0155	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0351
Total	**1.2180**	**1.5000e-004**	**0.0155**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0328**	**0.0328**	**9.0000e-005**		**0.0351**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Multi-Use Facilities Project - Operational

Great Basin Valleys Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	13.00	1000sqft	0.30	13,000.00	0
Parking Lot	107.00	Space	0.96	42,800.00	0
Recreational Swimming Pool	30.00	1000sqft	0.69	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Multi-Use facilities

Construction Phase - Operational Run Only

Off-road Equipment -

Off-road Equipment -

Demolition -

Grading - 6,500 yards of excavation and export

Vehicle Trips - Trip rate per Traffic Study

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - GBUAPCD standard mitigation

Mobile Land Use Mitigation -

Water Mitigation -

Waste Mitigation -

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	BuildingSpaceSquareFeet	0.00	30,000.00
tblLandUse	RecSwimmingAreaAllowEdit	1.00	0.00
tblLandUse	RecSwimmingAreaSquareFeet	30,000.00	0.00
tblVehicleTrips	ST_TR	0.00	5.75
tblVehicleTrips	ST_TR	9.10	4.51
tblVehicleTrips	SU_TR	0.00	5.75
tblVehicleTrips	SU_TR	13.60	4.51
tblVehicleTrips	WD_TR	27.92	5.75
tblVehicleTrips	WD_TR	33.82	4.51

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2222	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Energy	7.3000e-004	6.6700e-003	5.6000e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	74.4295	74.4295	2.9100e-003	7.1000e-004	74.7129
Mobile	0.1100	0.5404	1.1138	2.3200e-003	0.1458	2.9900e-003	0.1488	0.0392	2.8200e-003	0.0420	0.0000	212.8186	212.8186	0.0147	0.0000	213.1870
Waste						0.0000	0.0000		0.0000	0.0000	49.7531	0.0000	49.7531	2.9403	0.0000	123.2612
Water						0.0000	0.0000		0.0000	0.0000	1.3822	10.4894	11.8716	0.1424	3.4400e-003	16.4573
Total	**0.3329**	**0.5471**	**1.1208**	**2.3600e-003**	**0.1458**	**3.5100e-003**	**0.1493**	**0.0392**	**3.3400e-003**	**0.0425**	**51.1353**	**297.7401**	**348.8754**	**3.1004**	**4.1500e-003**	**427.6212**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2222	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Energy	7.3000e-004	6.6700e-003	5.6000e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	74.4295	74.4295	2.9100e-003	7.1000e-004	74.7129
Mobile	0.1100	0.5404	1.1138	2.3200e-003	0.1458	2.9900e-003	0.1488	0.0392	2.8200e-003	0.0420	0.0000	212.8186	212.8186	0.0147	0.0000	213.1870
Waste						0.0000	0.0000		0.0000	0.0000	24.8765	0.0000	24.8765	1.4702	0.0000	61.6306
Water						0.0000	0.0000		0.0000	0.0000	1.1058	8.9871	10.0929	0.1140	2.7600e-003	13.7636
Total	**0.3329**	**0.5471**	**1.1208**	**2.3600e-003**	**0.1458**	**3.5100e-003**	**0.1493**	**0.0392**	**3.3400e-003**	**0.0425**	**25.9823**	**296.2378**	**322.2201**	**1.6018**	**3.4700e-003**	**363.2969**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**49.19**	**0.50**	**7.64**	**48.34**	**16.39**	**15.04**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1100	0.5404	1.1138	2.3200e-003	0.1458	2.9900e-003	0.1488	0.0392	2.8200e-003	0.0420	0.0000	212.8186	212.8186	0.0147	0.0000	213.1870
Unmitigated	0.1100	0.5404	1.1138	2.3200e-003	0.1458	2.9900e-003	0.1488	0.0392	2.8200e-003	0.0420	0.0000	212.8186	212.8186	0.0147	0.0000	213.1870

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	74.75	74.75	74.75	142,895	142,895
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	135.30	135.30	135.30	244,525	244,525
Total	210.05	210.05	210.05	387,420	387,420

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776
Parking Lot	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776
Recreational Swimming Pool	0.503626	0.045054	0.197728	0.136410	0.037729	0.008205	0.008244	0.048281	0.003607	0.002384	0.006017	0.000940	0.001776

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	67.1730	67.1730	2.7700e-003	5.7000e-004	67.4134
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	67.1730	67.1730	2.7700e-003	5.7000e-004	67.4134
NaturalGas Mitigated	7.3000e-004	6.6700e-003	5.6000e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.2564	7.2564	1.4000e-004	1.3000e-004	7.2995
NaturalGas Unmitigated	7.3000e-004	6.6700e-003	5.6000e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.2564	7.2564	1.4000e-004	1.3000e-004	7.2995

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	135980	7.3000e-004	6.6700e-003	5.6000e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.2564	7.2564	1.4000e-004	1.3000e-004	7.2995
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.3000e-004**	**6.6700e-003**	**5.6000e-003**	**4.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**7.2564**	**7.2564**	**1.4000e-004**	**1.3000e-004**	**7.2995**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	135980	7.3000e-004	6.6700e-003	5.6000e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.2564	7.2564	1.4000e-004	1.3000e-004	7.2995
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.3000e-004**	**6.6700e-003**	**5.6000e-003**	**4.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**7.2564**	**7.2564**	**1.4000e-004**	**1.3000e-004**	**7.2995**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	173160	55.1725	2.2800e-003	4.7000e-004	55.3699
Parking Lot	37664	12.0006	5.0000e-004	1.0000e-004	12.0435
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**67.1731**	**2.7800e-003**	**5.7000e-004**	**67.4134**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	173160	55.1725	2.2800e-003	4.7000e-004	55.3699
Parking Lot	37664	12.0006	5.0000e-004	1.0000e-004	12.0435
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**67.1731**	**2.7800e-003**	**5.7000e-004**	**67.4134**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2222	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Unmitigated	0.2222	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0513					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1707					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Total	**0.2221**	**1.0000e-005**	**1.4000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.6800e-003**	**2.6800e-003**	**1.0000e-005**	**0.0000**	**2.8600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0513					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1707					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Total	**0.2221**	**1.0000e-005**	**1.4000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.6800e-003**	**2.6800e-003**	**1.0000e-005**	**0.0000**	**2.8600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.0929	0.1140	2.7600e-003	13.7636
Unmitigated	11.8716	0.1424	3.4400e-003	16.4573

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	2.58258 / 1.58287	7.0370	0.0844	2.0400e-003	9.7552
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	1.77429 / 1.08747	4.8346	0.0580	1.4000e-003	6.7021
Total		**11.8716**	**0.1424**	**3.4400e-003**	**16.4573**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	2.06606 / 1.58287	5.9827	0.0675	1.6400e-003	8.1585
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	1.41944 / 1.08747	4.1102	0.0464	1.1200e-003	5.6051
Total		**10.0929**	**0.1139**	**2.7600e-003**	**13.7636**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	24.8765	1.4702	0.0000	61.6306
Unmitigated	49.7531	2.9403	0.0000	123.2612

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	74.1	15.0416	0.8889	0.0000	37.2650
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	171	34.7115	2.0514	0.0000	85.9962
Total		**49.7531**	**2.9403**	**0.0000**	**123.2612**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	37.05	7.5208	0.4445	0.0000	18.6325
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	85.5	17.3557	1.0257	0.0000	42.9981
Total		**24.8766**	**1.4702**	**0.0000**	**61.6306**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

11.6 Noise Data

Site Number: 1			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12, 2016			
Time: 1:54 pm			
Location: Mammoth Creek Park West, just east of La Vista Blanc Condominiums			
Source of Peak Noise: Parking lot activities from the adjacent condominiums			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
45.3	27.4	69.5	64.6

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** ☼ Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	2.3	41.0	30.25

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		01/12/2016 13:54:50
End Time:		01/12/2016 14:04:50
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.75

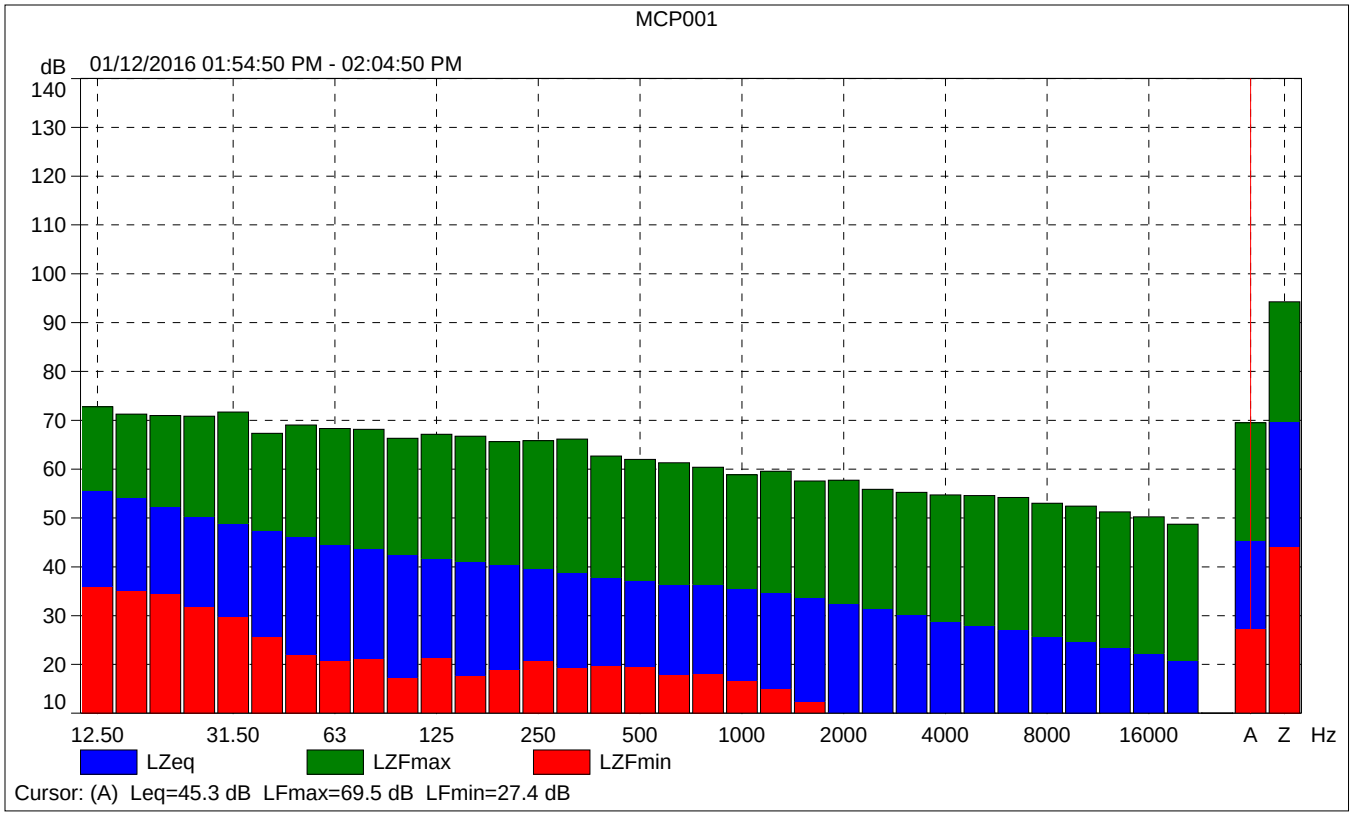
	Time	Frequency
Broadband (excl. Peak):	FSI	AZ
Broadband Peak:		C
Spectrum:	FS	Z

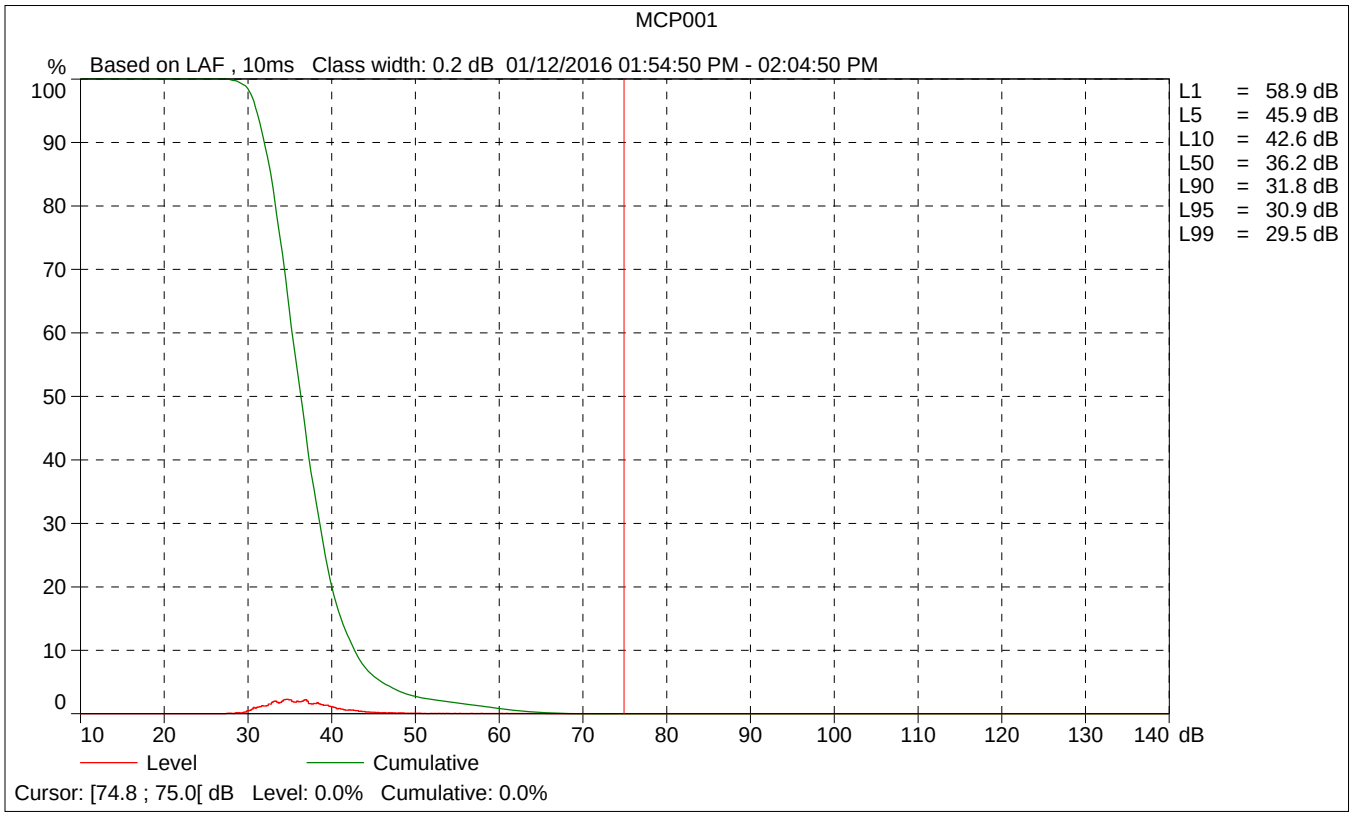
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

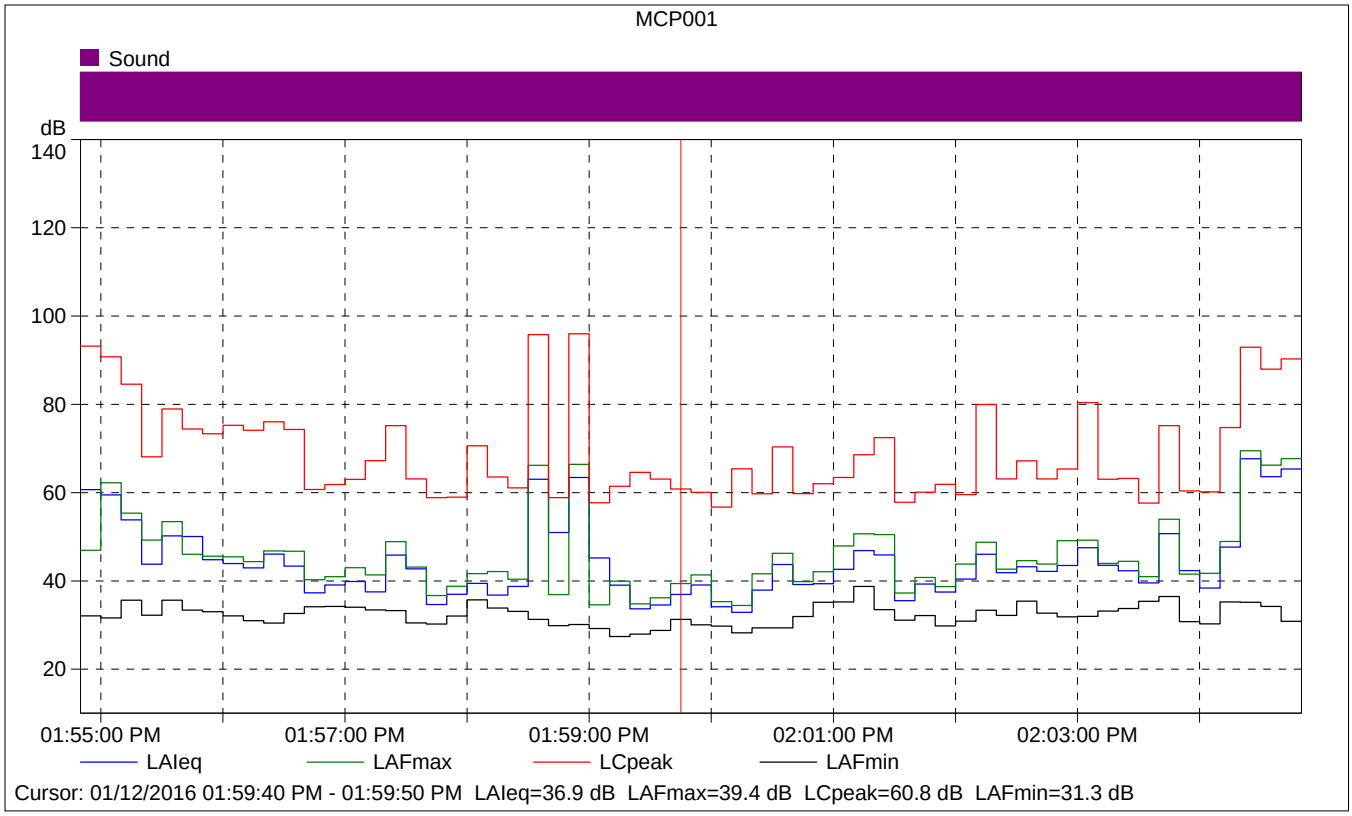
Calibration Time:		01/08/2016 16:38:05
Calibration Type:		External reference
Sensitivity:		64.3964111804962 mV/Pa

MCP001

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	45.3	69.5	27.4
Time	01:54:50 PM	02:04:50 PM	0:10:00				
Date	01/12/2016	01/12/2016					

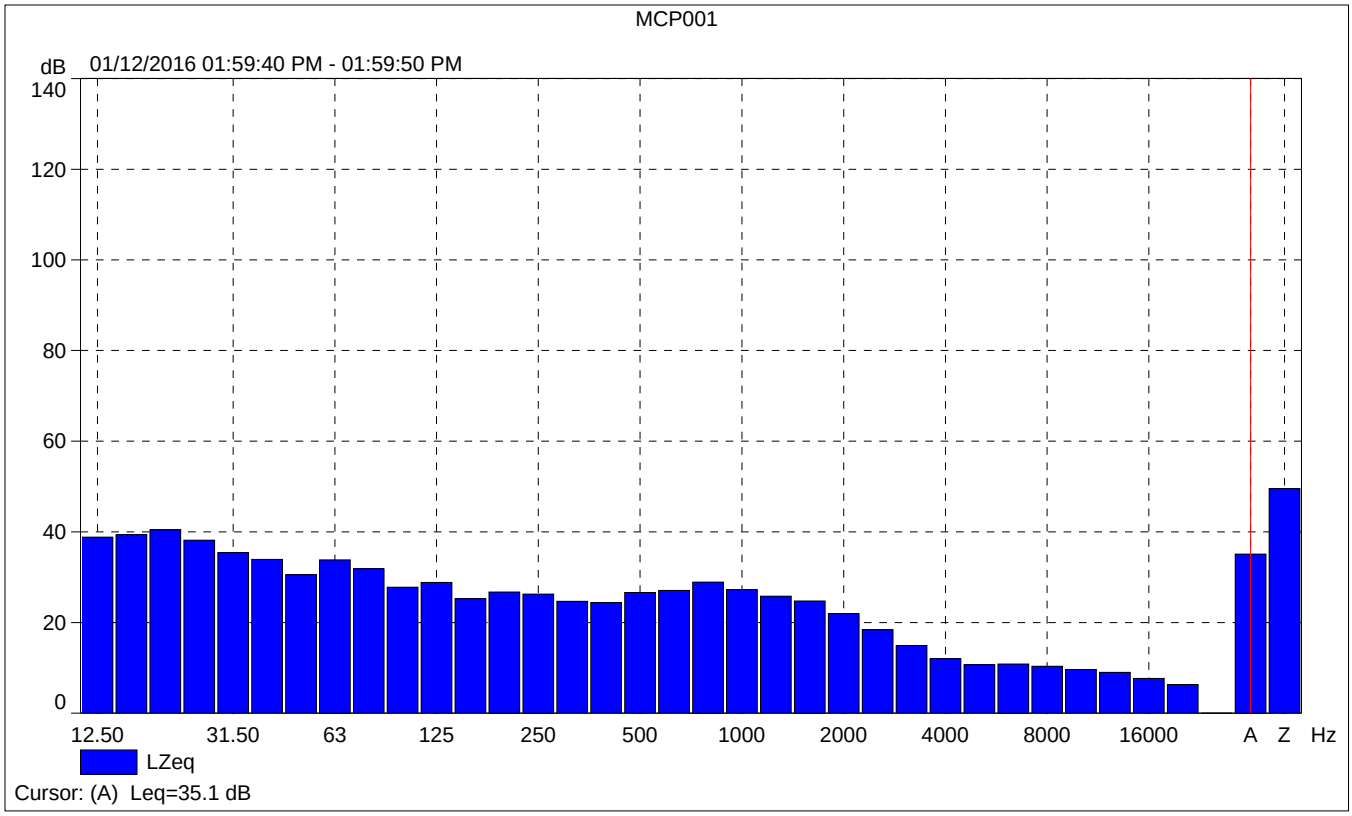

MCP001
dB
01/12/2016 01:54:50 PM - 02:04:50 PM
140
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=45.3 dB LFmax=69.5 dB LFmin=27.4 dB

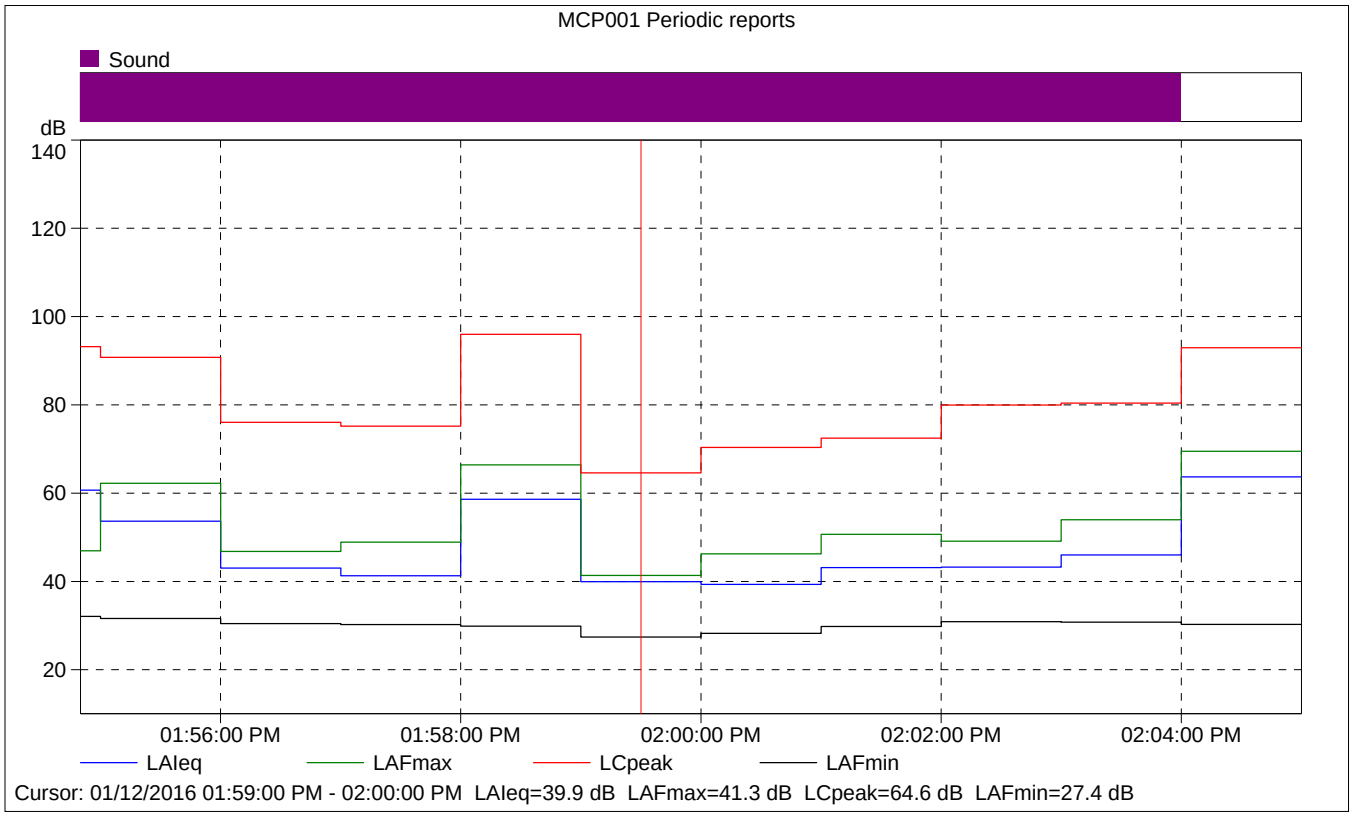

MCP001
%
Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 01:54:50 PM - 02:04:50 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 58.9 dB
L5 = 45.9 dB
L10 = 42.6 dB
L50 = 36.2 dB
L90 = 31.8 dB
L95 = 30.9 dB
L99 = 29.5 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



MCP001

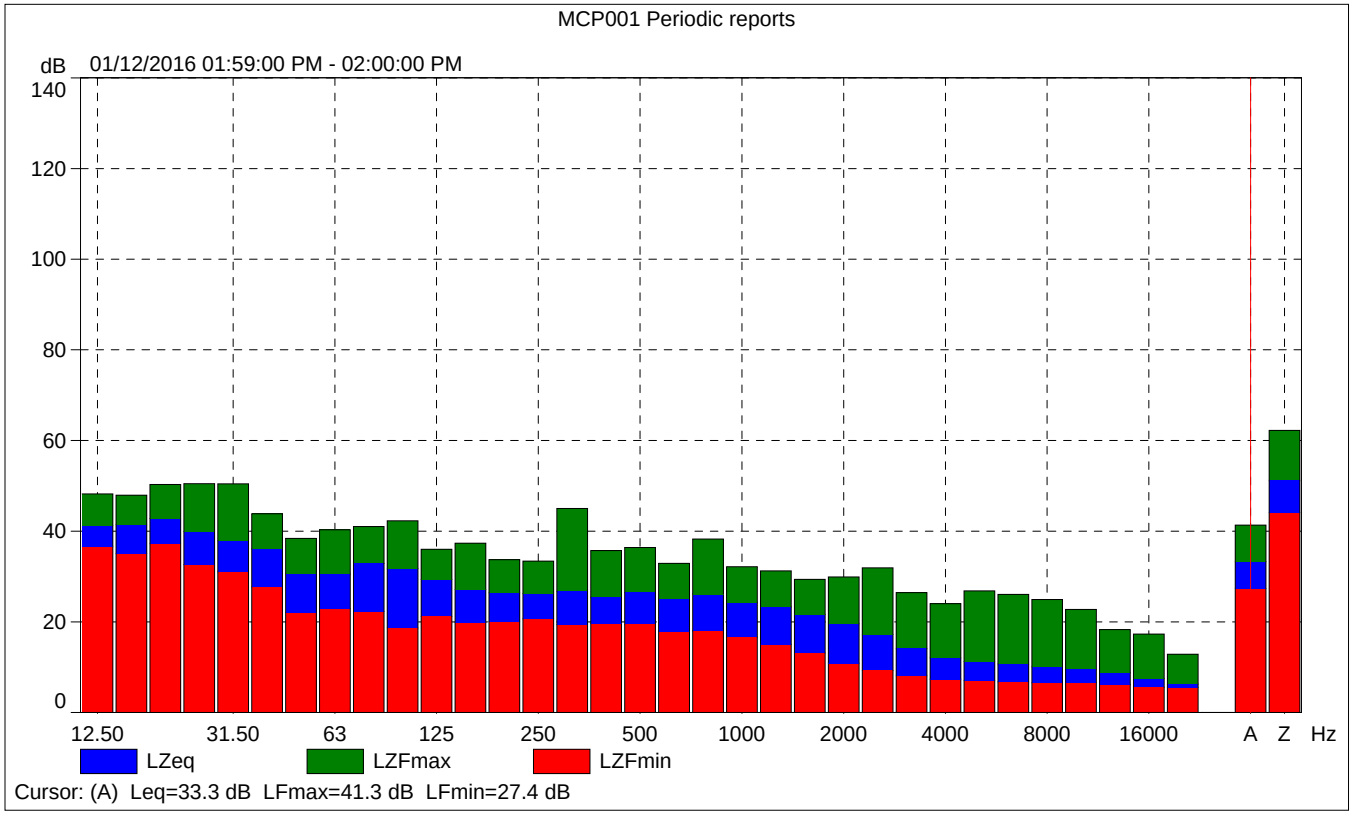
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			36.9	39.4	31.3
Time	01:59:40 PM	0:00:10			
Date	01/12/2016				

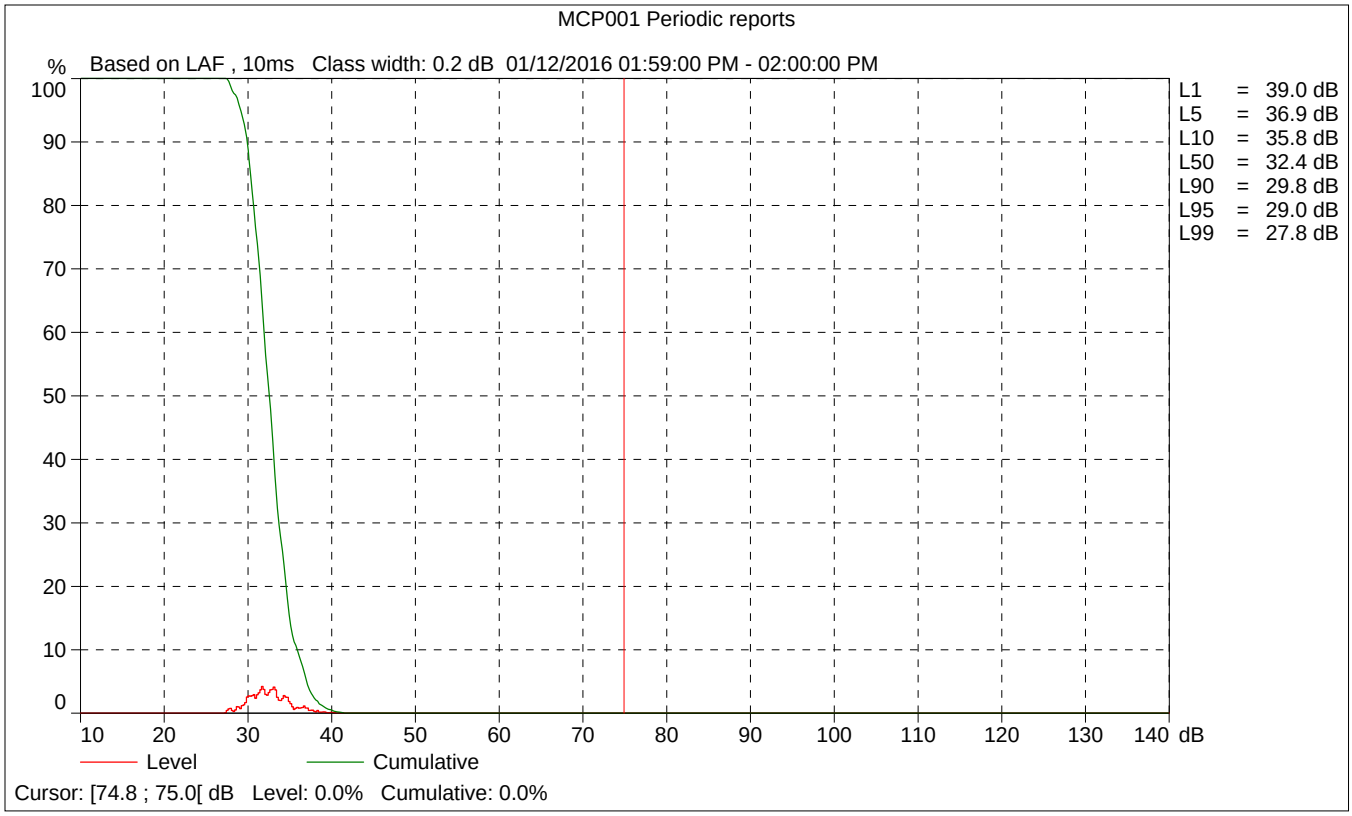

MCP001
dB
01/12/2016 01:59:40 PM - 01:59:50 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
Cursor: (A) Leq=35.1 dB


MCP001 Periodic reports
Sound
dB
140
120
100
80
60
40
20
01:56:00 PM
01:58:00 PM
02:00:00 PM
02:02:00 PM
02:04:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 01/12/2016 01:59:00 PM - 02:00:00 PM LAIeq=39.9 dB LAFmax=41.3 dB LCpeak=64.6 dB LAFmin=27.4 dB

MCP001 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	39.9	41.3	27.4
Time	01:59:00 PM	0:01:00				
Date	01/12/2016					




MCP001 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 01:59:00 PM - 02:00:00 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
Level
Cumulative
L1 = 39.0 dB
L5 = 36.9 dB
L10 = 35.8 dB
L50 = 32.4 dB
L90 = 29.8 dB
L95 = 29.0 dB
L99 = 27.8 dB
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

Site Number: 2			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12, 2016			
Time: 2:07 pm			
Location: Mammoth Creek Park West, just east of Mammoth Creek Condominiums			
Source of Peak Noise: Pedestrian activity			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
40.2	35.4	47.7	63.8

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** ☼ Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	3.4	42.8	30.24

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		01/12/2016 14:07:51
End Time:		01/12/2016 14:17:51
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.75

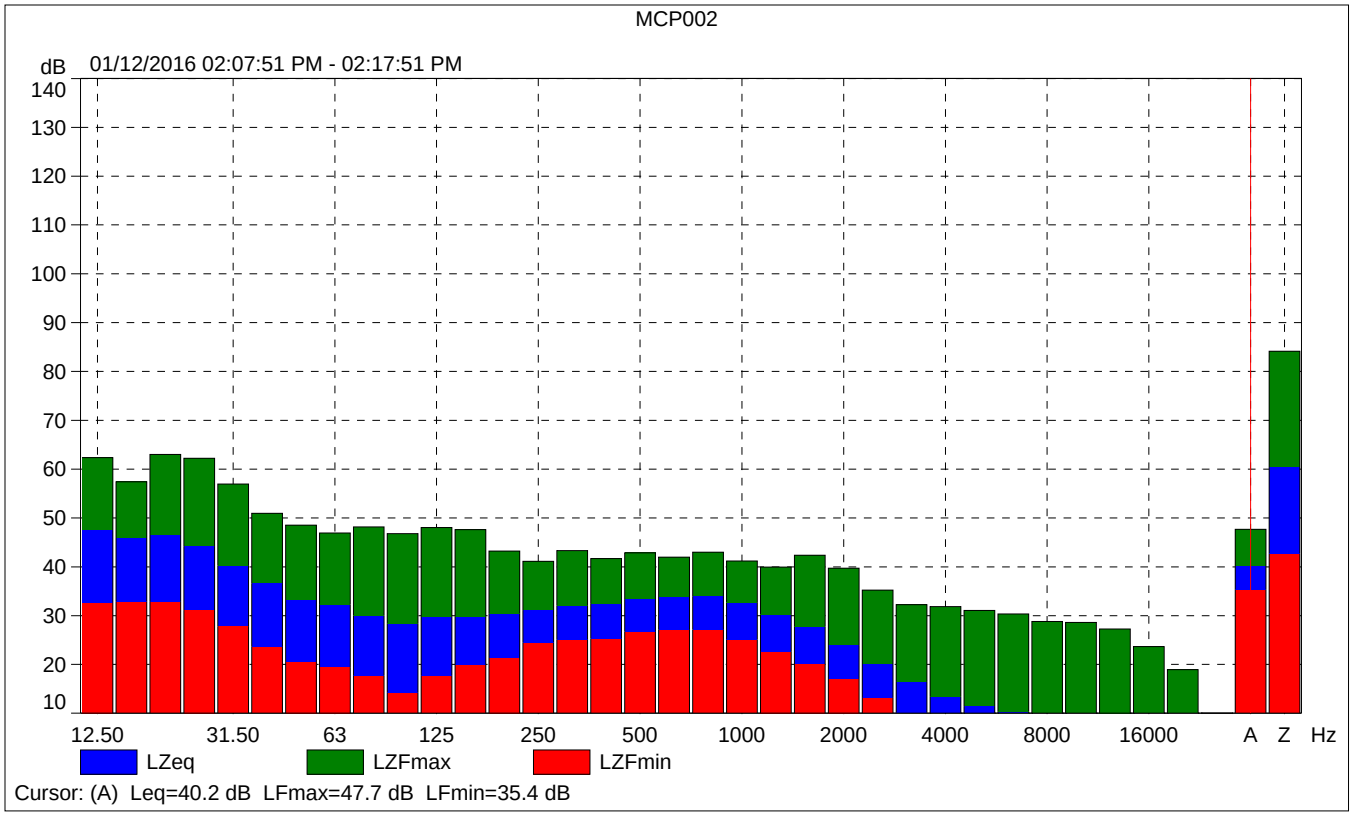
	Time	Frequency
Broadband (excl. Peak):	FSI	AZ
Broadband Peak:		C
Spectrum:	FS	Z

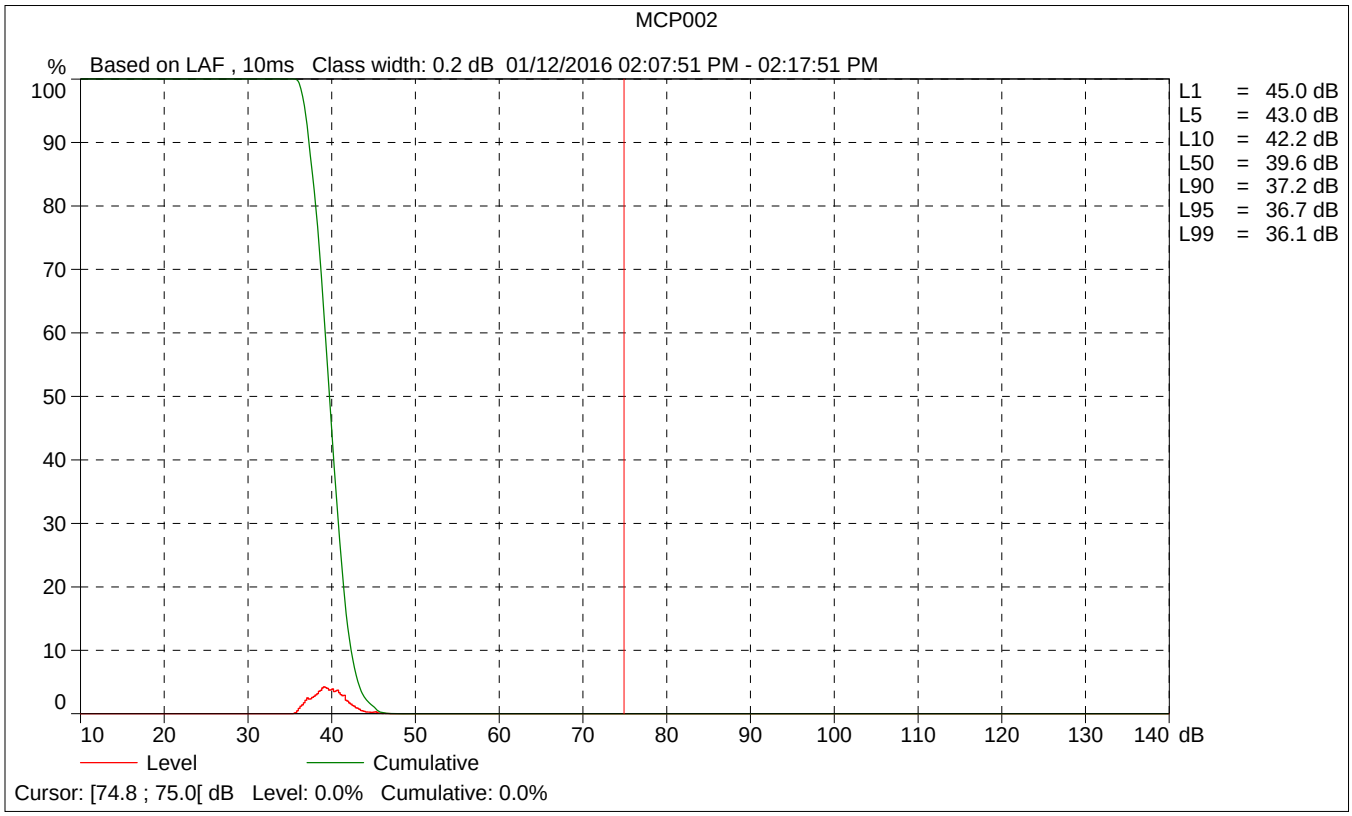
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

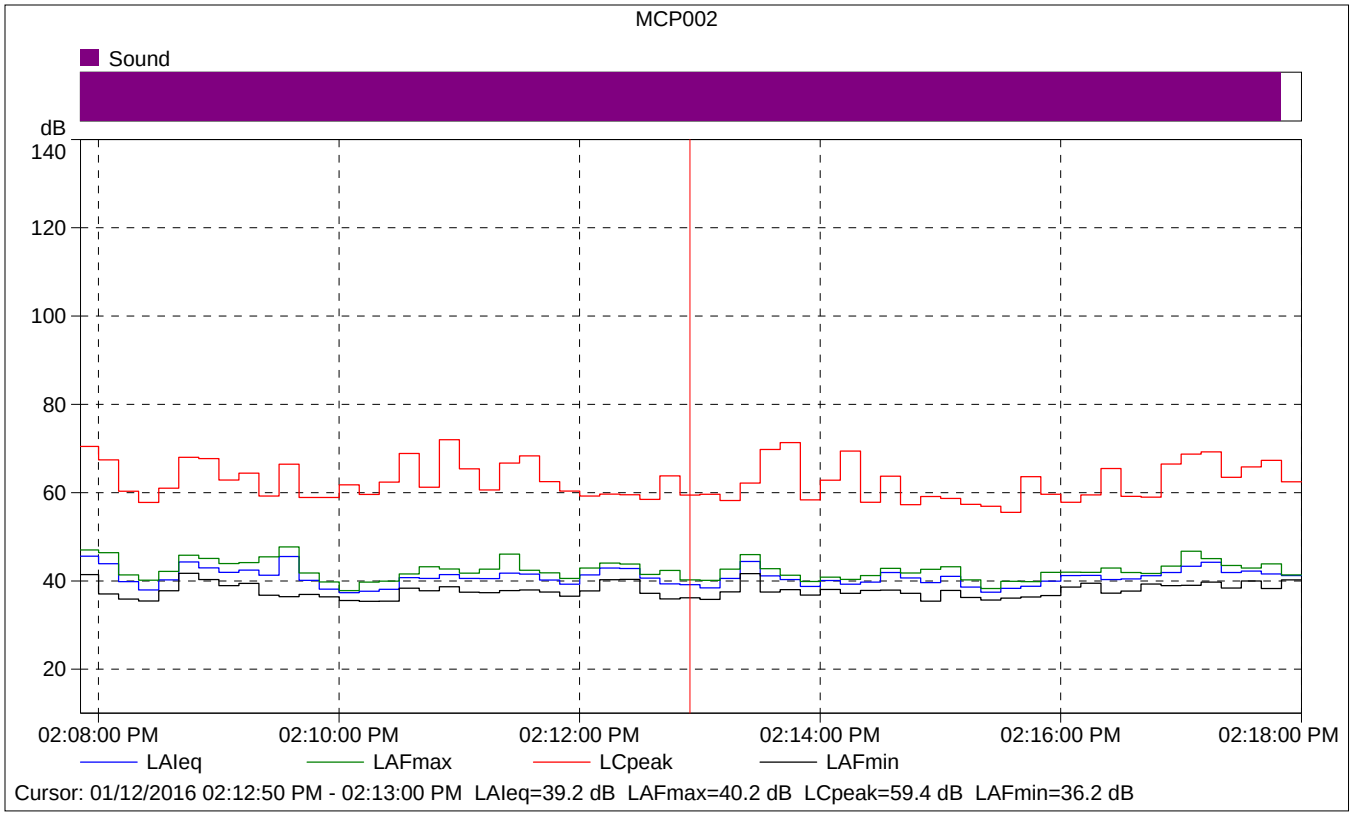
Calibration Time:		01/08/2016 16:38:05
Calibration Type:		External reference
Sensitivity:		64.3964111804962 mV/Pa

MCP002

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	40.2	47.7	35.4
Time	02:07:51 PM	02:17:51 PM	0:10:00				
Date	01/12/2016	01/12/2016					

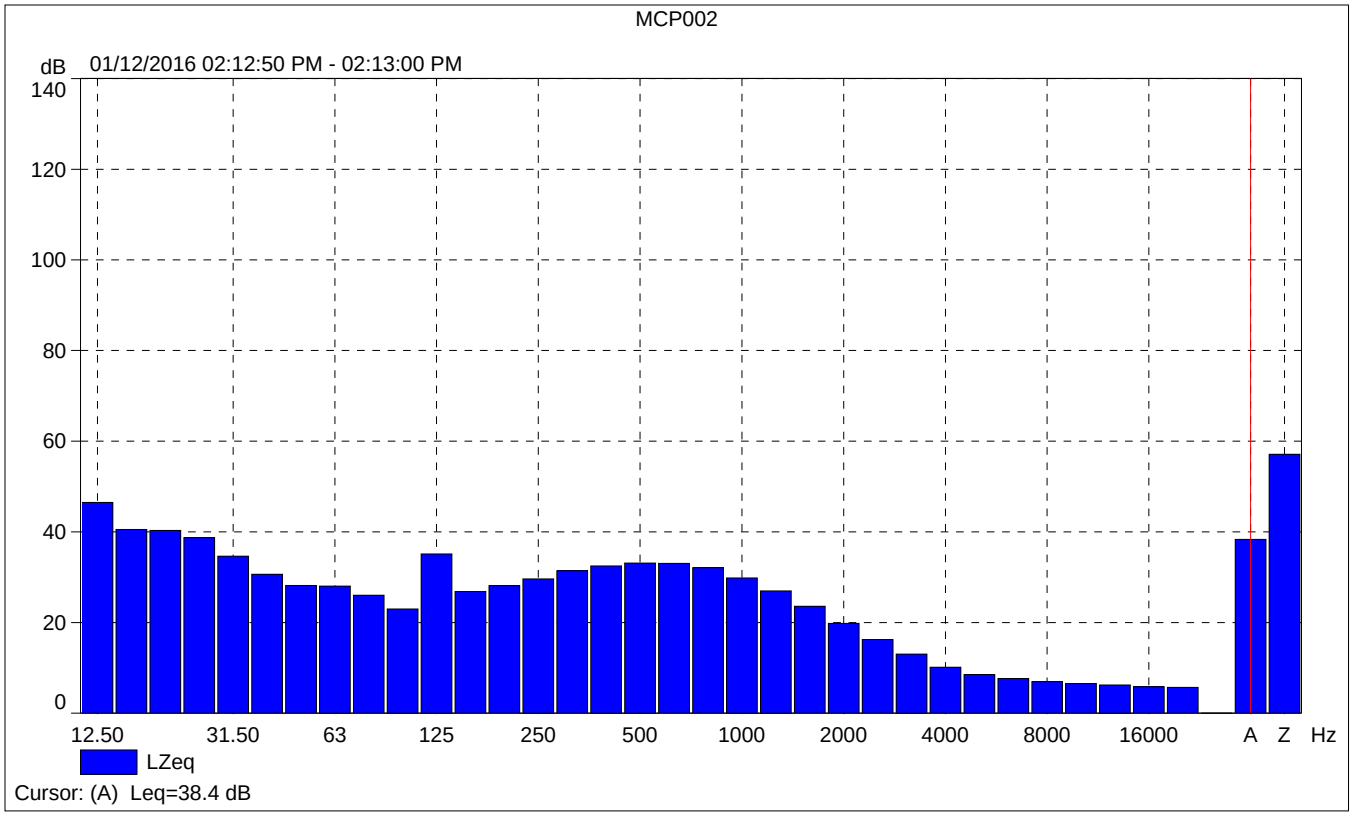

MCP002
dB
01/12/2016 02:07:51 PM - 02:17:51 PM
140
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=40.2 dB LFmax=47.7 dB LFmin=35.4 dB

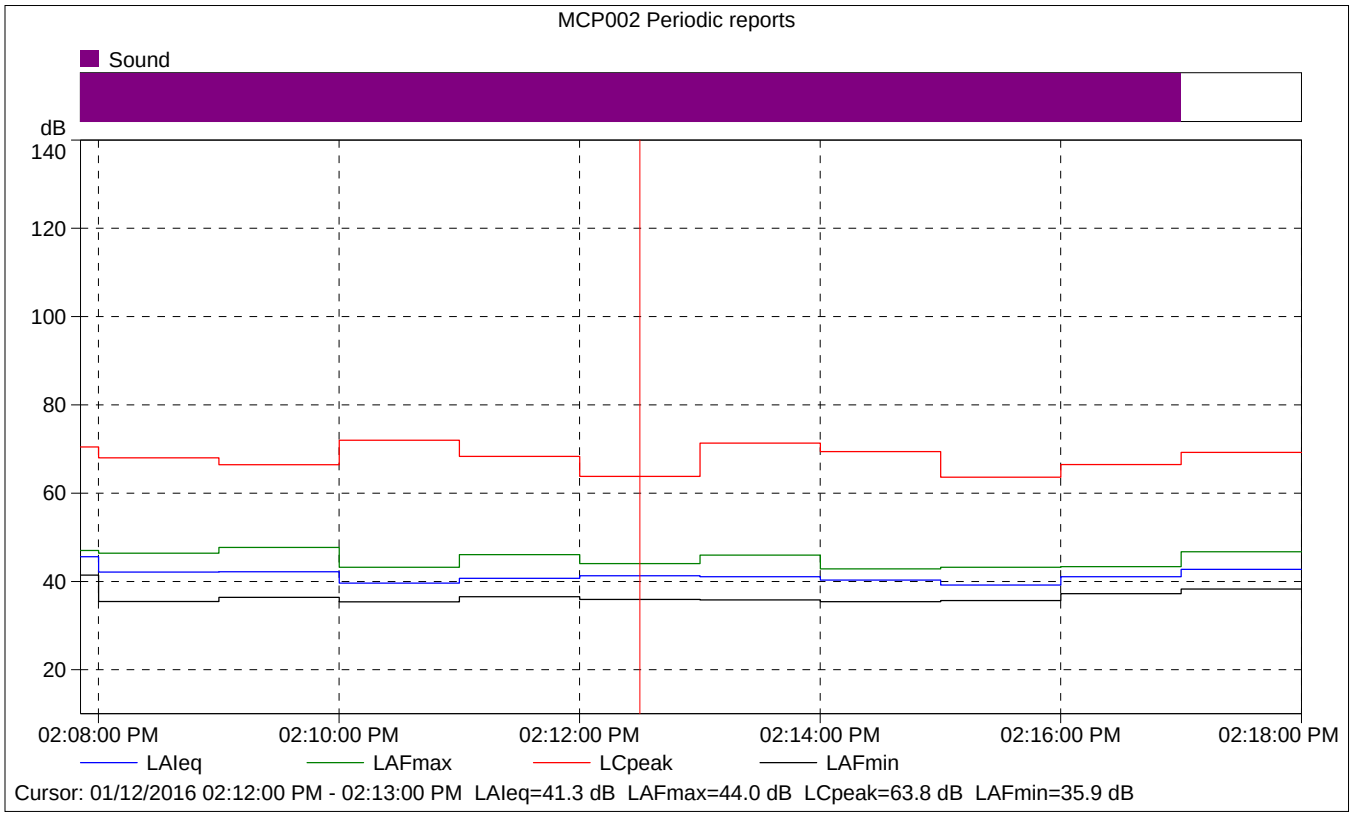

MCP002
%
Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 02:07:51 PM - 02:17:51 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 45.0 dB
L5 = 43.0 dB
L10 = 42.2 dB
L50 = 39.6 dB
L90 = 37.2 dB
L95 = 36.7 dB
L99 = 36.1 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



MCP002

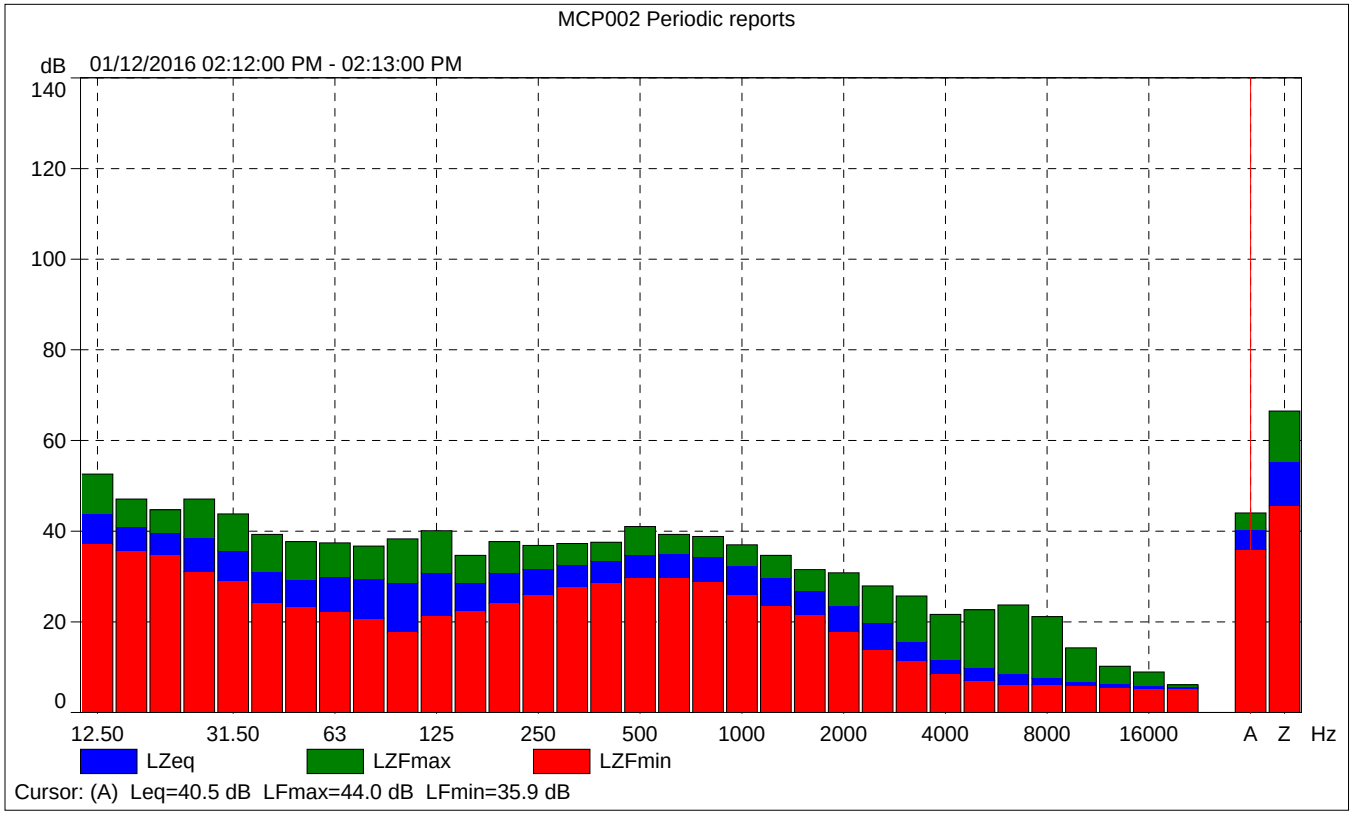
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			39.2	40.2	36.2
Time	02:12:50 PM	0:00:10			
Date	01/12/2016				

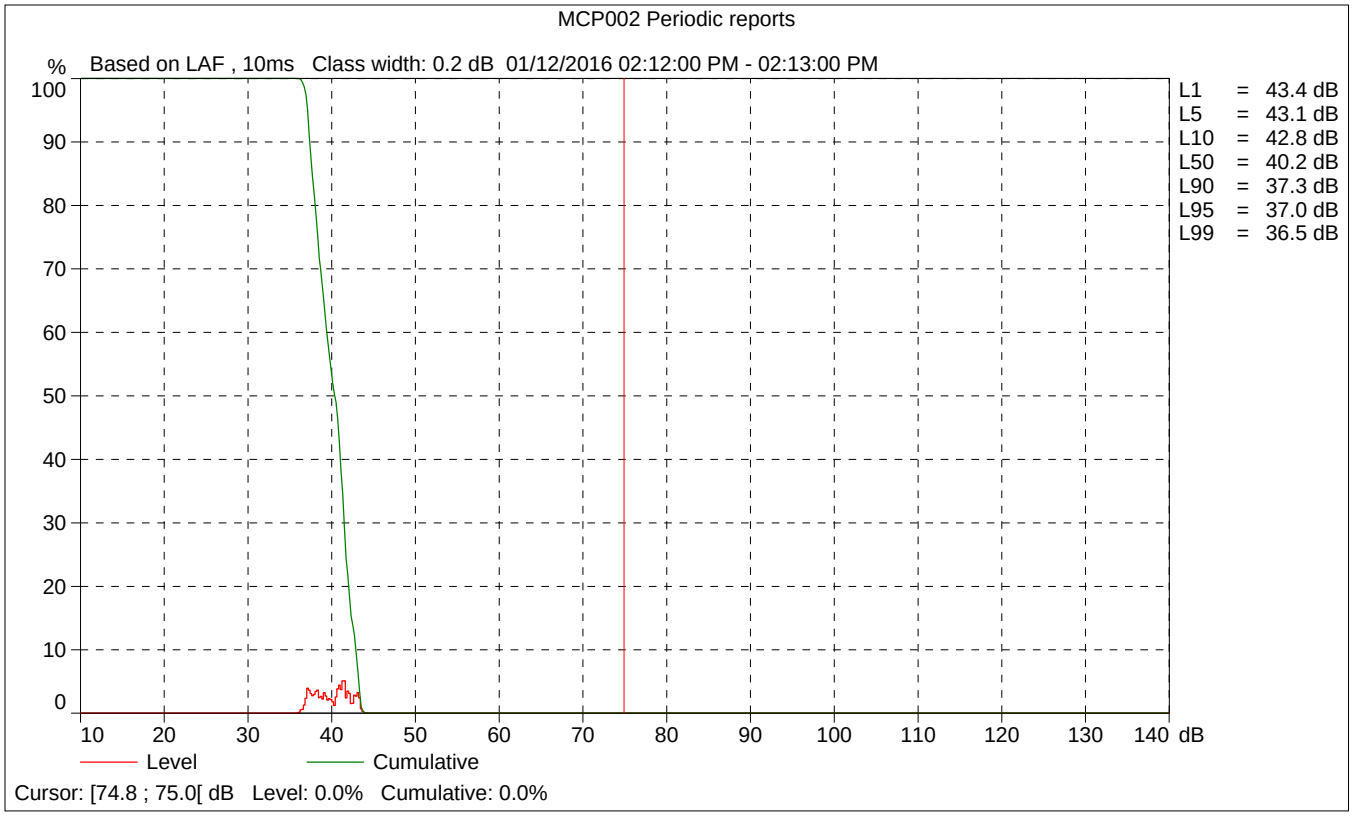

MCP002
dB
01/12/2016 02:12:50 PM - 02:13:00 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
Cursor: (A) Leq=38.4 dB


MCP002 Periodic reports
Sound
dB
140
120
100
80
60
40
20
02:08:00 PM
02:10:00 PM
02:12:00 PM
02:14:00 PM
02:16:00 PM
02:18:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 01/12/2016 02:12:00 PM - 02:13:00 PM LAIeq=41.3 dB LAFmax=44.0 dB LCpeak=63.8 dB LAFmin=35.9 dB

MCP002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	41.3	44.0	35.9
Time	02:12:00 PM	0:01:00				
Date	01/12/2016					




MCP002 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 02:12:00 PM - 02:13:00 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 43.4 dB
L5 = 43.1 dB
L10 = 42.8 dB
L50 = 40.2 dB
L90 = 37.3 dB
L95 = 37.0 dB
L99 = 36.5 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

Site Number: 3			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12, 2016			
Time: 2:21 pm			
Location: Mammoth Creek Park West, just north of the Mammoth Creek pedestrian bridge			
Source of Peak Noise: Water streaming through Mammoth Creek			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
48.2	45.0	61.9	67.5

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** ☼ Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	2.6	42.8	30.24

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		01/12/2016 14:21:18
End Time:		01/12/2016 14:31:18
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.75

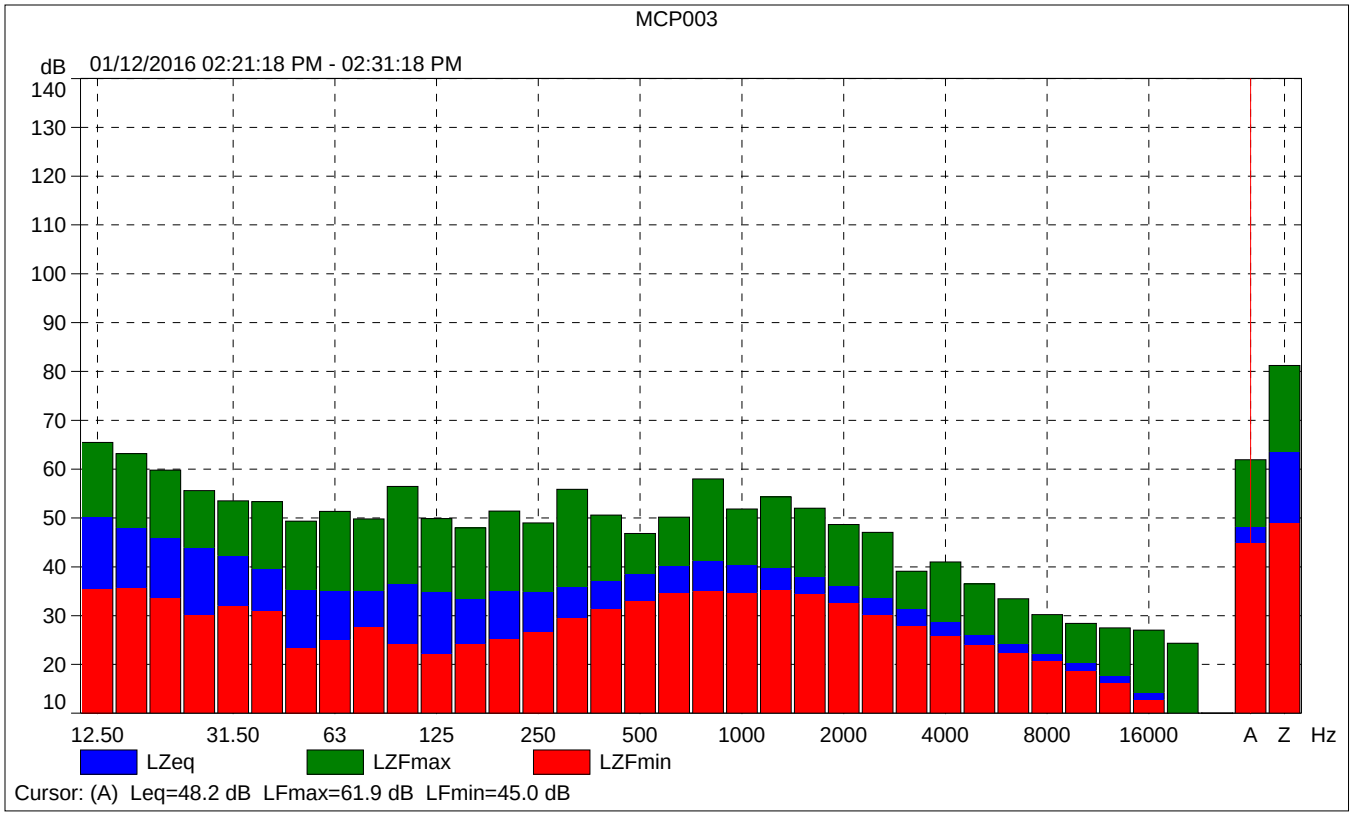
	Time	Frequency
Broadband (excl. Peak):	FSI	AZ
Broadband Peak:		C
Spectrum:	FS	Z

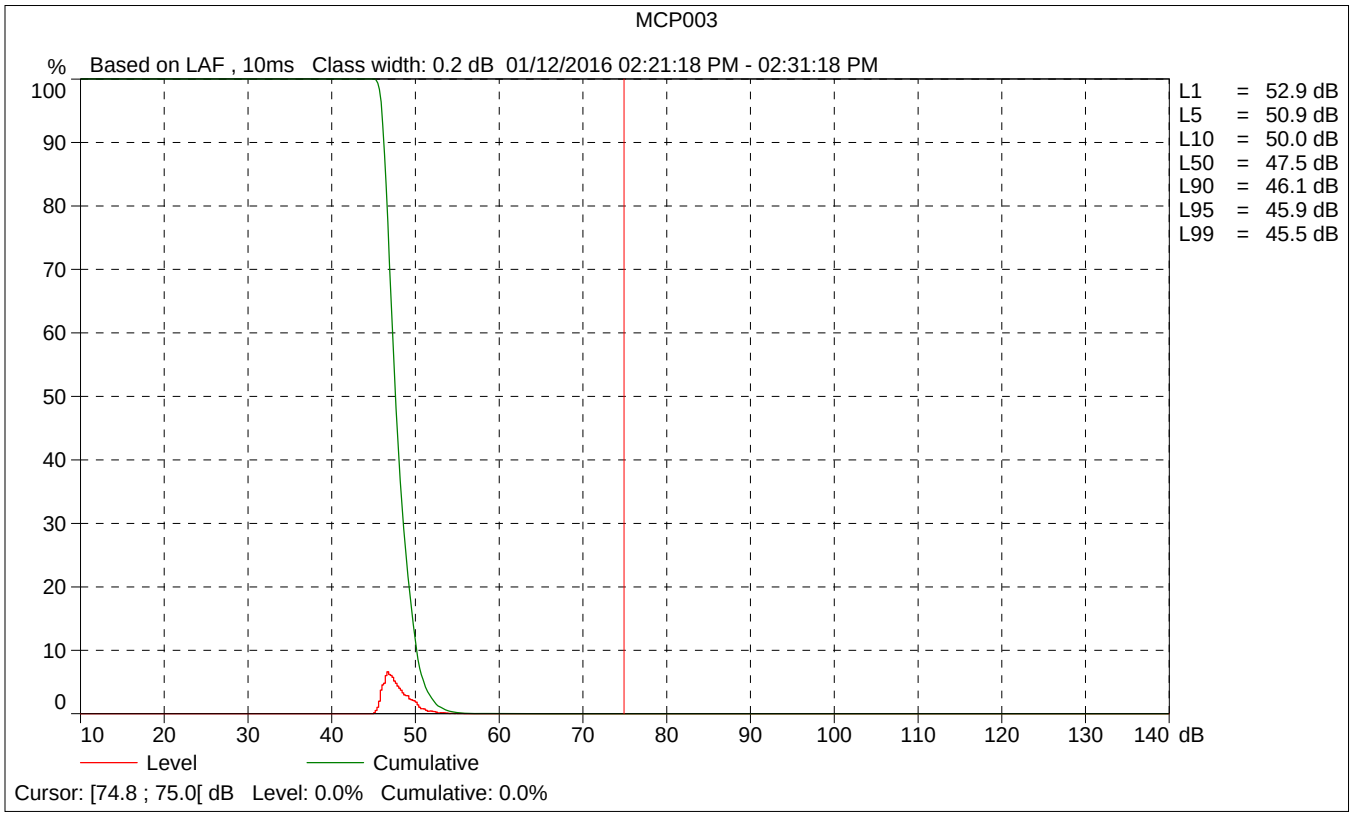
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

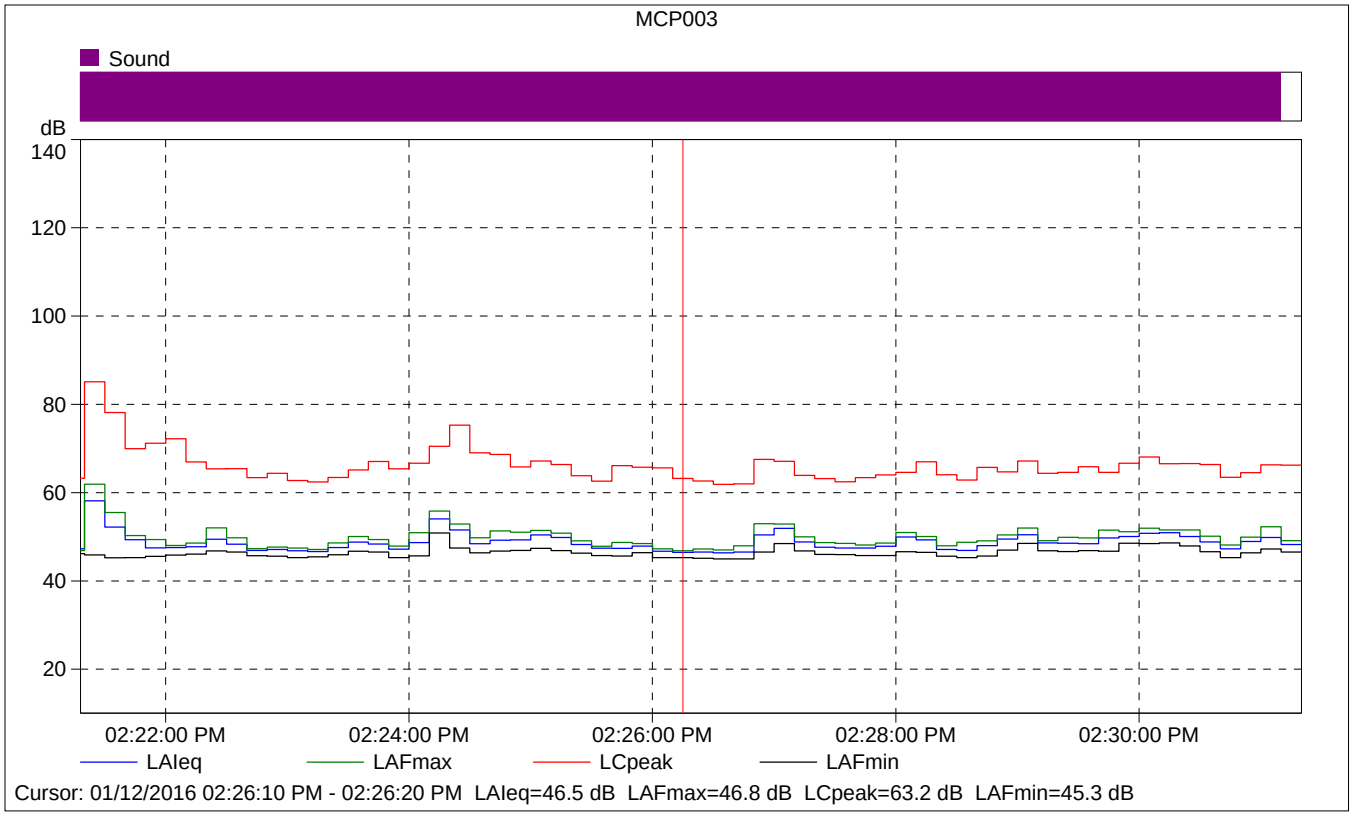
Calibration Time:		01/08/2016 16:38:05
Calibration Type:		External reference
Sensitivity:		64.3964111804962 mV/Pa

MCP003

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	48.2	61.9	45.0
Time	02:21:18 PM	02:31:18 PM	0:10:00				
Date	01/12/2016	01/12/2016					

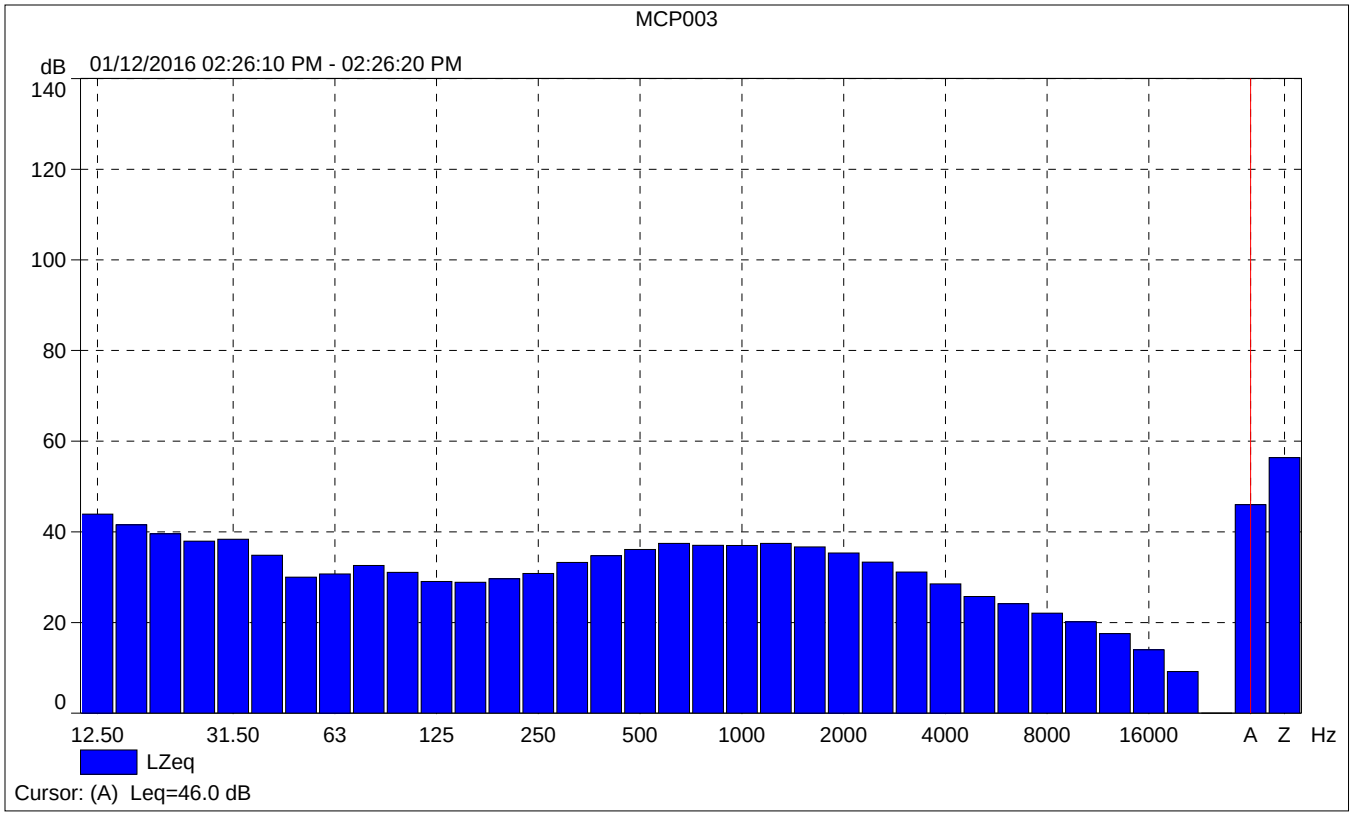

MCP003
dB
01/12/2016 02:21:18 PM - 02:31:18 PM
140
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=48.2 dB LFmax=61.9 dB LFmin=45.0 dB

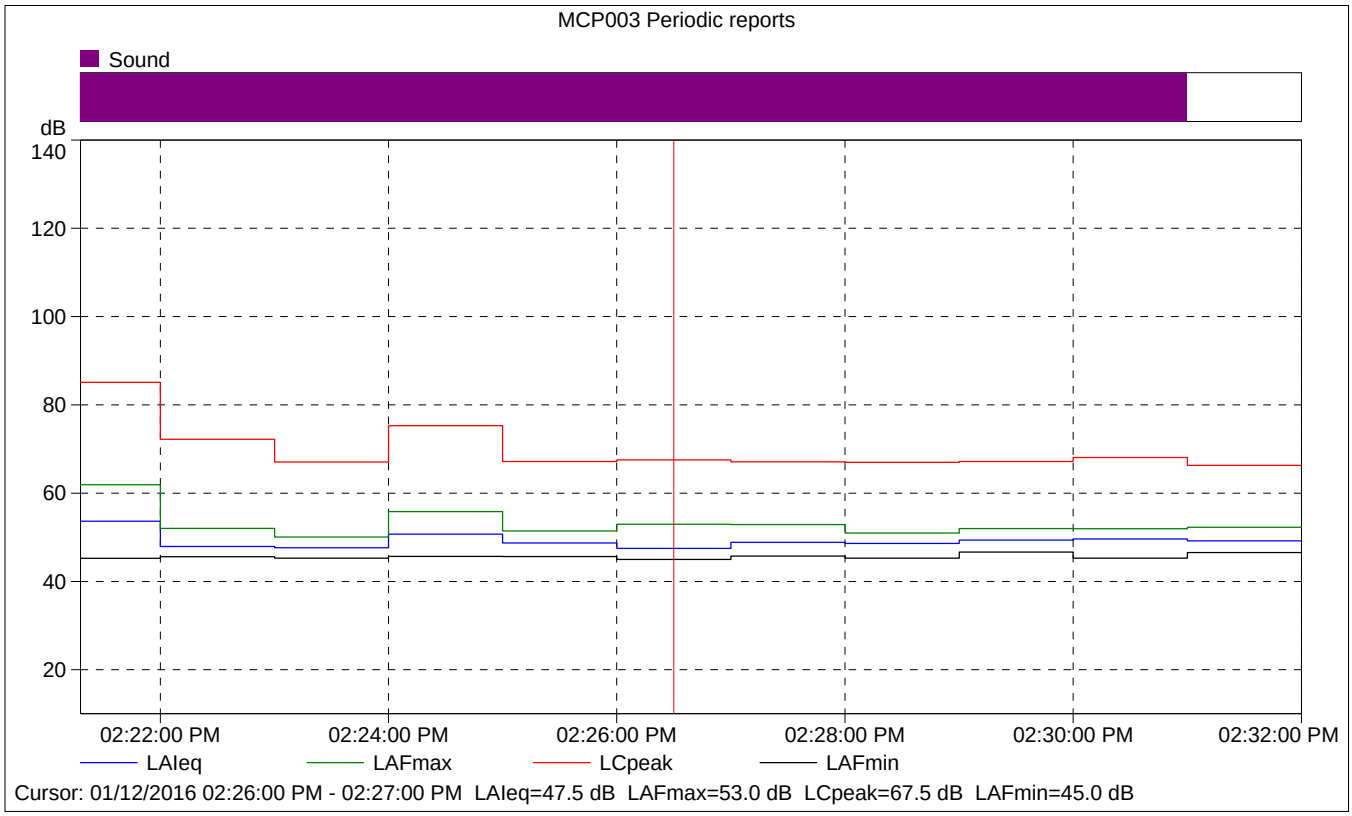

MCP003
%
Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 02:21:18 PM - 02:31:18 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 52.9 dB
L5 = 50.9 dB
L10 = 50.0 dB
L50 = 47.5 dB
L90 = 46.1 dB
L95 = 45.9 dB
L99 = 45.5 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



MCP003

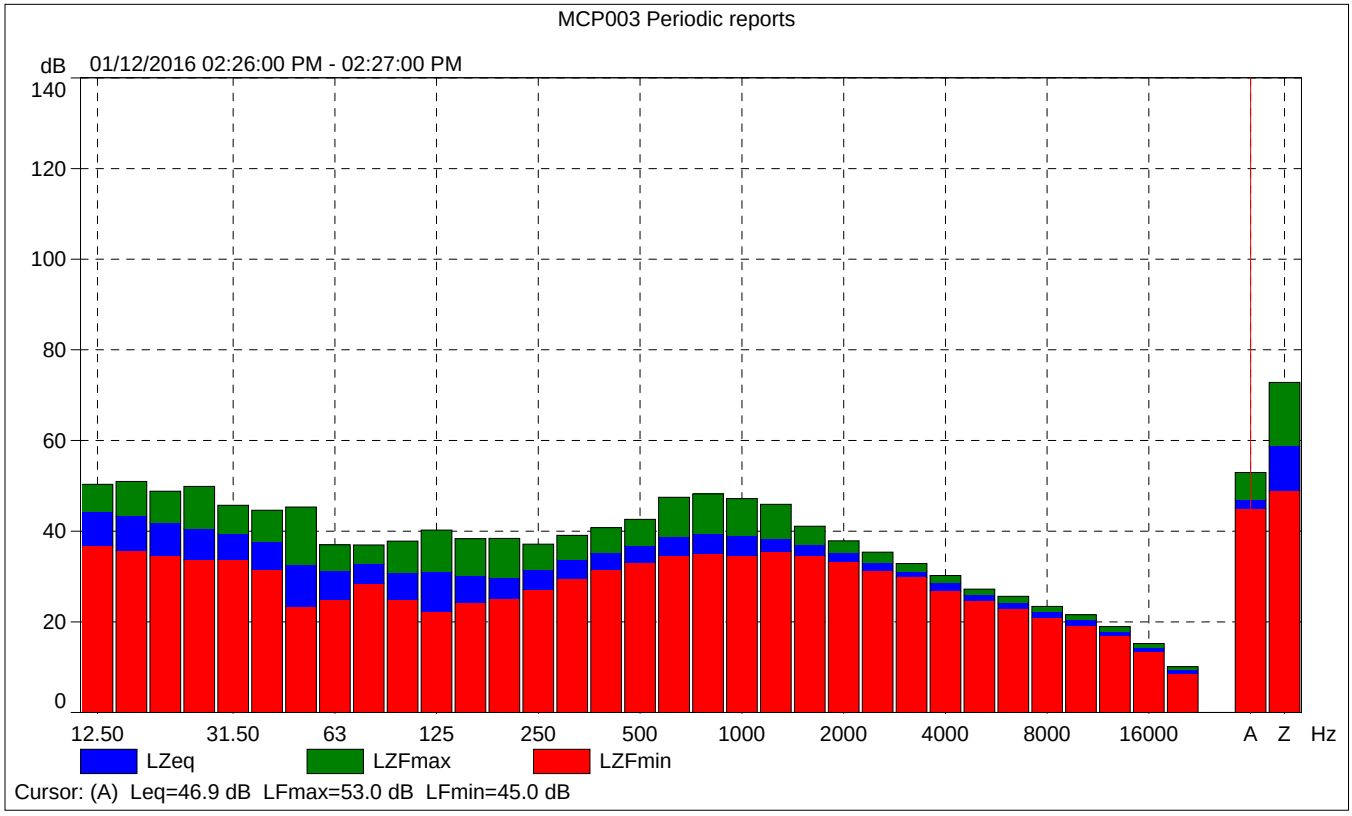
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			46.5	46.8	45.3
Time	02:26:10 PM	0:00:10			
Date	01/12/2016				

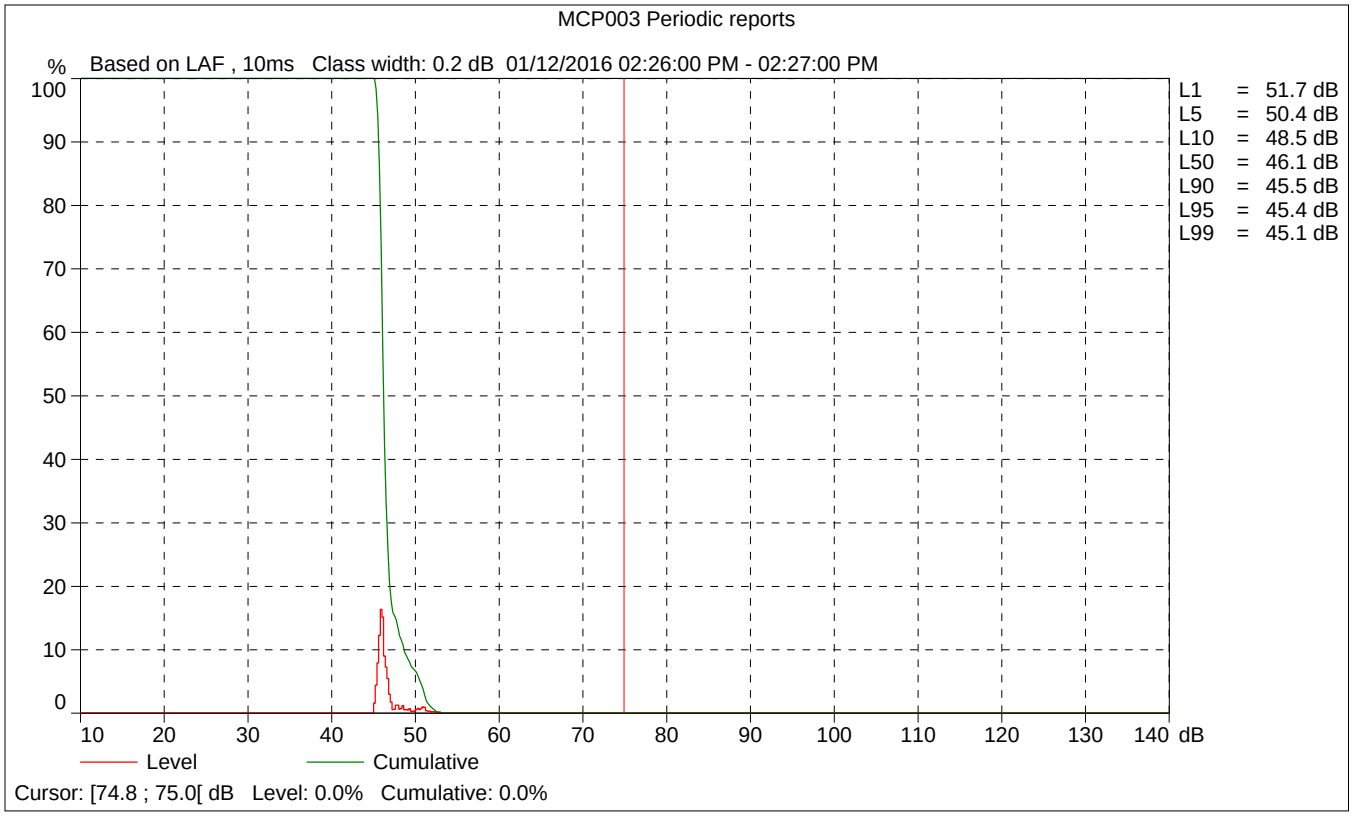

MCP003
dB
01/12/2016 02:26:10 PM - 02:26:20 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
Cursor: (A) Leq=46.0 dB


MCP003 Periodic reports
Sound
dB
140
120
100
80
60
40
20
02:22:00 PM
02:24:00 PM
02:26:00 PM
02:28:00 PM
02:30:00 PM
02:32:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 01/12/2016 02:26:00 PM - 02:27:00 PM LAIeq=47.5 dB LAFmax=53.0 dB LCpeak=67.5 dB LAFmin=45.0 dB

MCP003 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	47.5	53.0	45.0
Time	02:26:00 PM	0:01:00				
Date	01/12/2016					




MCP003 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 02:26:00 PM - 02:27:00 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 51.7 dB
L5 = 50.4 dB
L10 = 48.5 dB
L50 = 46.1 dB
L90 = 45.5 dB
L95 = 45.4 dB
L99 = 45.1 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

Site Number: 4			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12, 2016			
Time: 2:42 pm			
Location: Chateau Blanc Condominiums, just north of Mammoth Creek Park West			
Source of Peak Noise: Parking lot activities			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
40.9	34.4	59.1	69.8

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** ☼ Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	2.2	42.2	30.23

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		01/12/2016 14:42:51
End Time:		01/12/2016 14:52:51
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.75

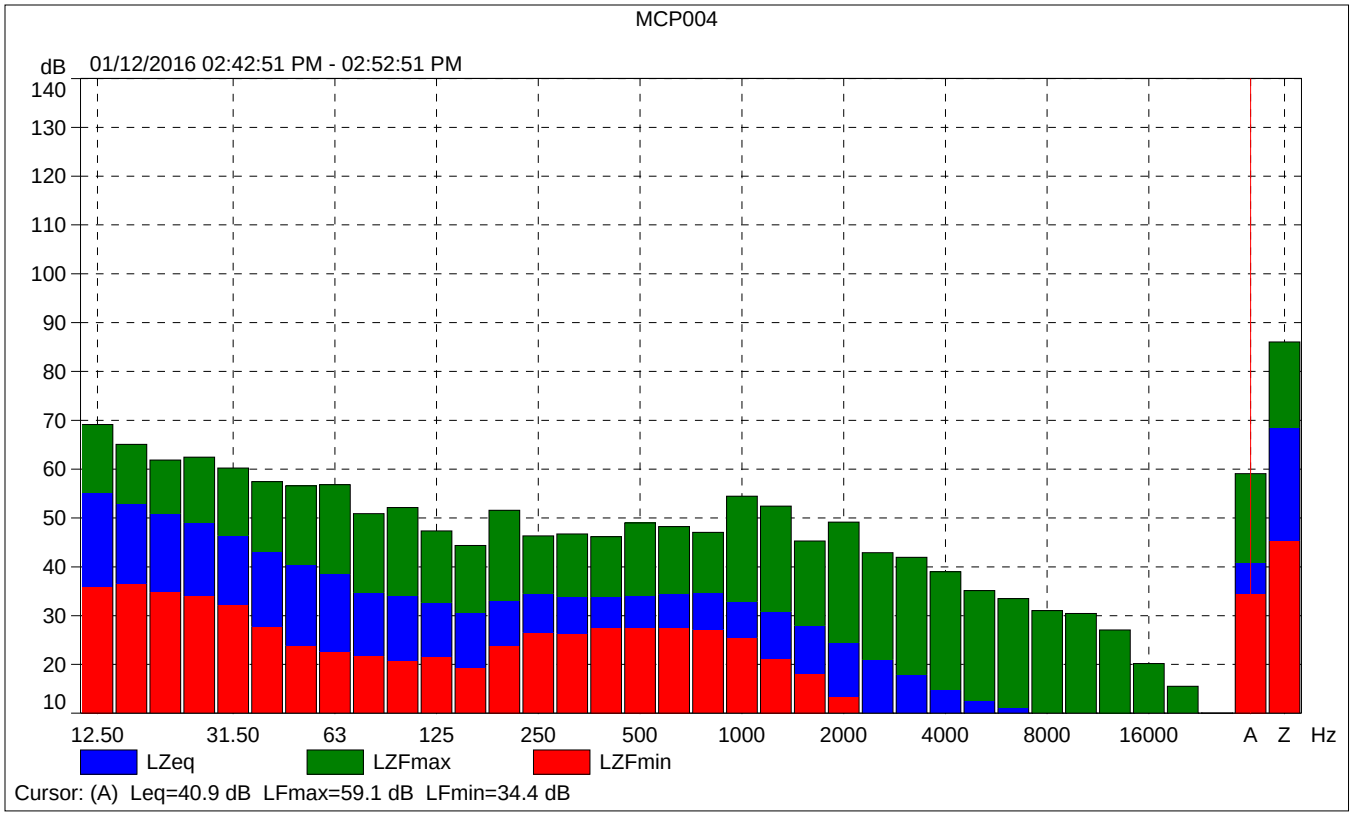
	Time	Frequency
Broadband (excl. Peak):	FSI	AZ
Broadband Peak:		C
Spectrum:	FS	Z

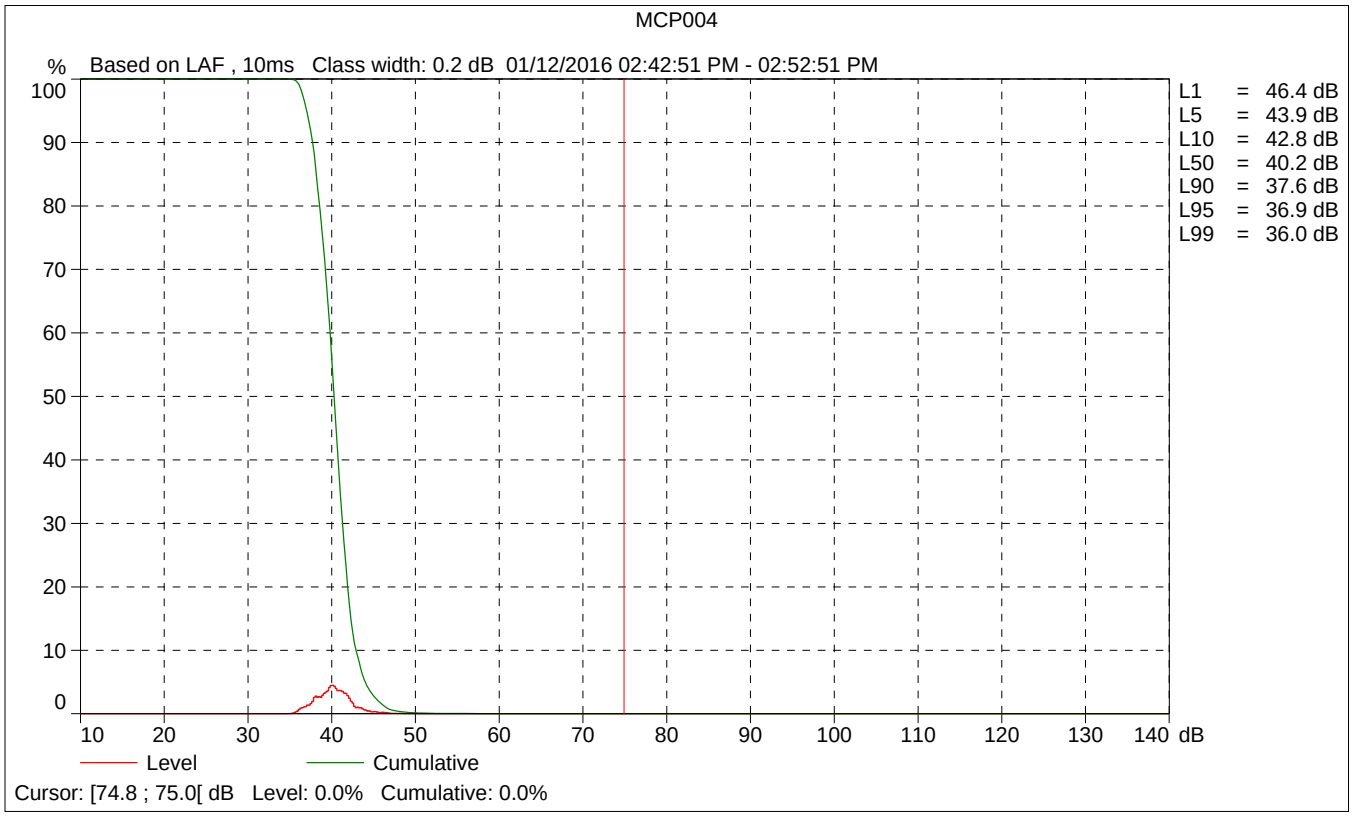
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

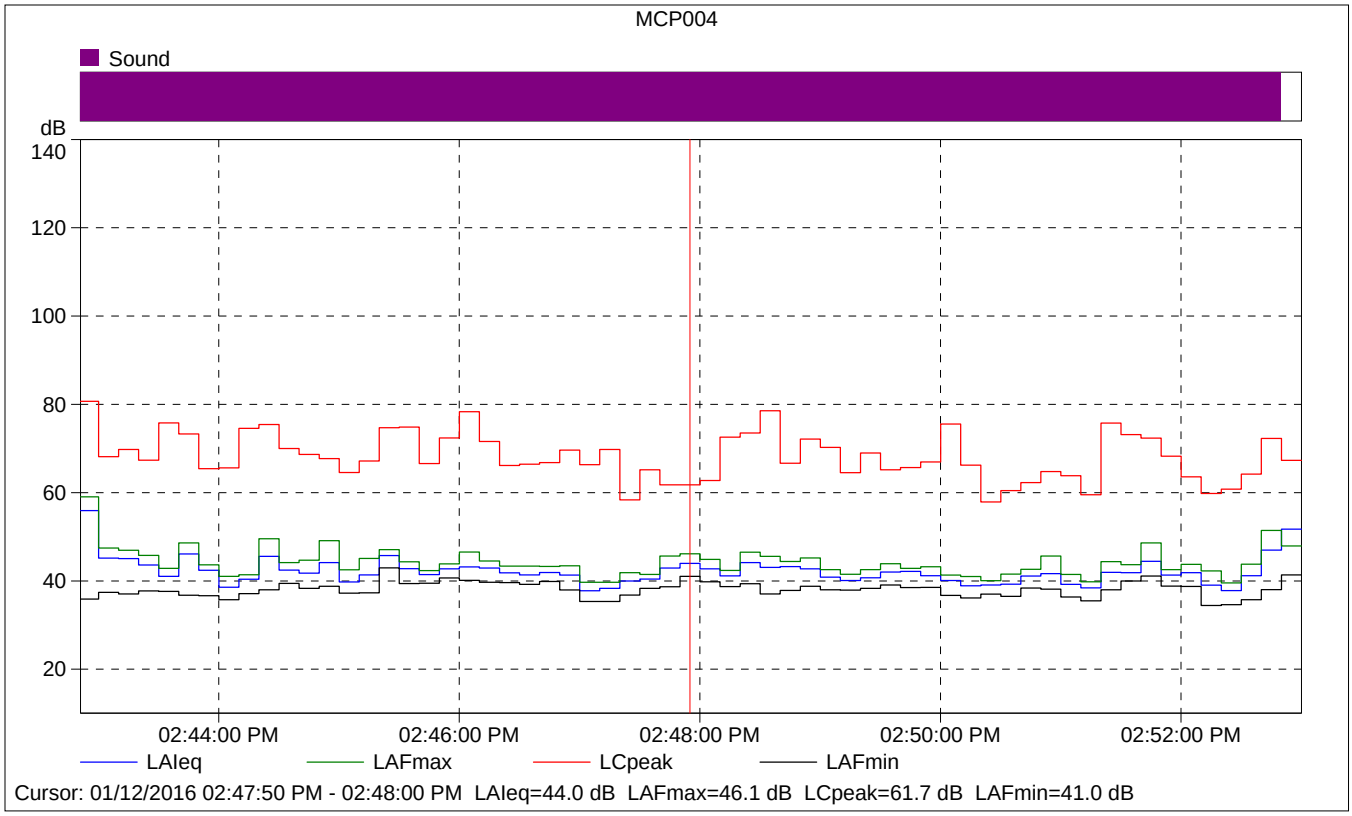
Calibration Time:		01/08/2016 16:38:05
Calibration Type:		External reference
Sensitivity:		64.3964111804962 mV/Pa

MCP004

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	40.9	59.1	34.4
Time	02:42:51 PM	02:52:51 PM	0:10:00				
Date	01/12/2016	01/12/2016					

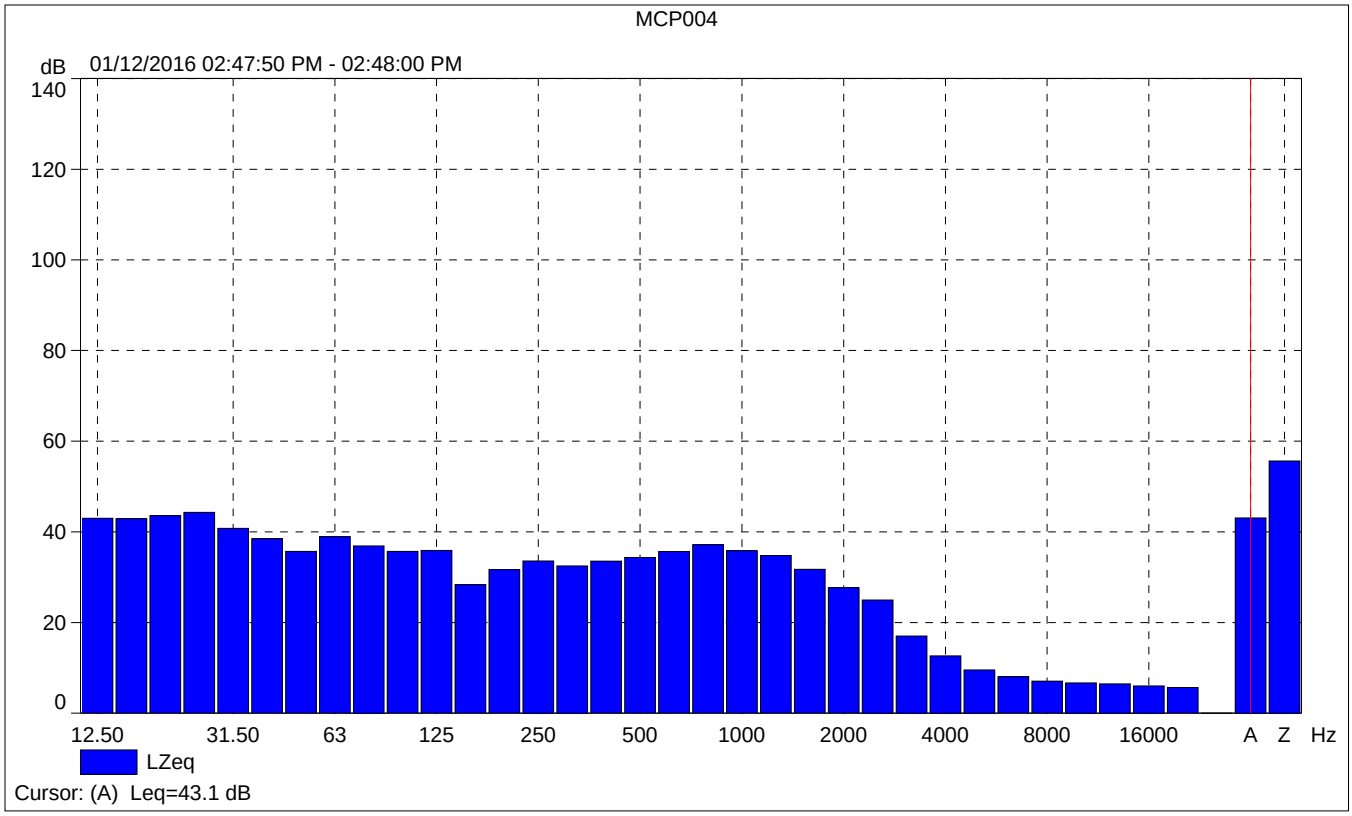

MCP004
dB
01/12/2016 02:42:51 PM - 02:52:51 PM
140
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=40.9 dB LFmax=59.1 dB LFmin=34.4 dB

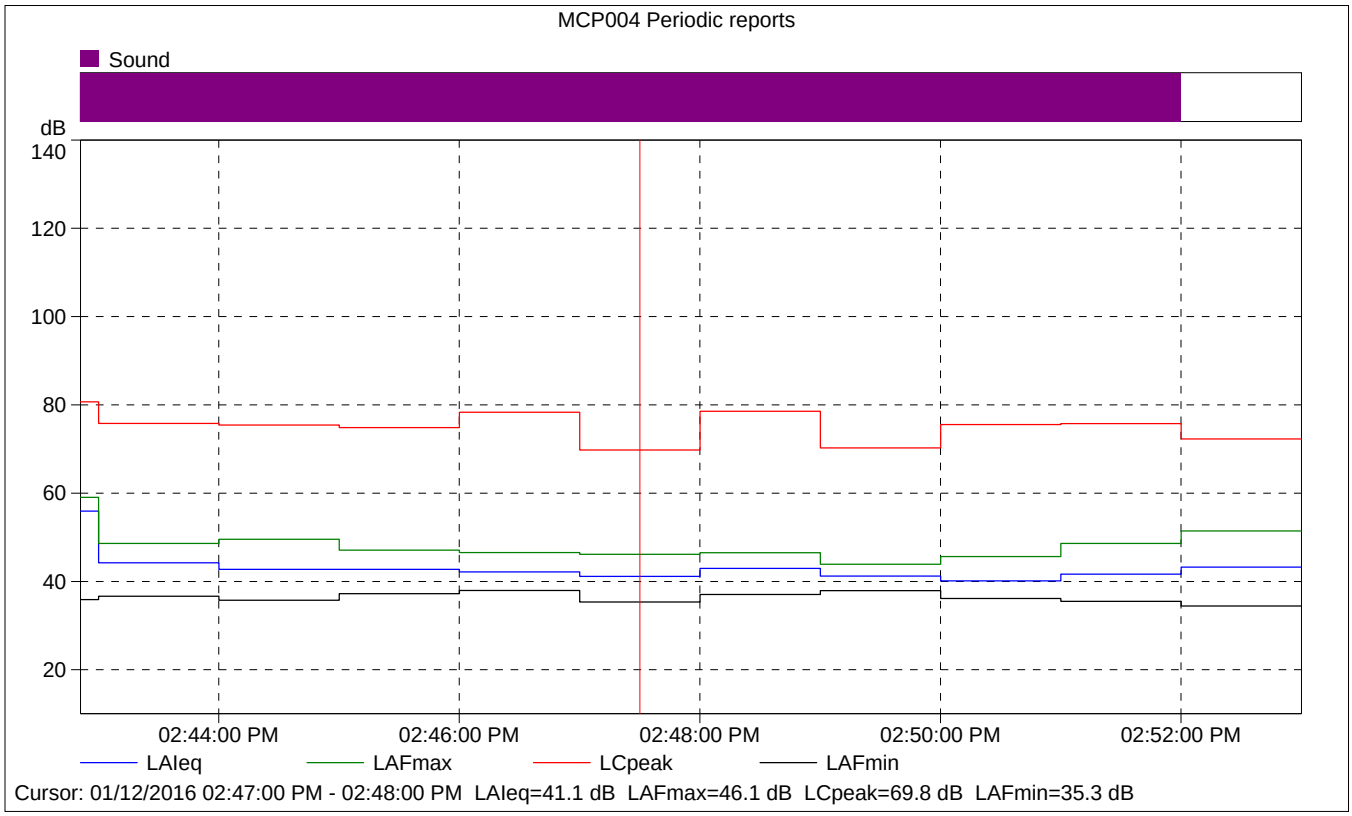

MCP004
%
Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 02:42:51 PM - 02:52:51 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 46.4 dB
L5 = 43.9 dB
L10 = 42.8 dB
L50 = 40.2 dB
L90 = 37.6 dB
L95 = 36.9 dB
L99 = 36.0 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



MCP004

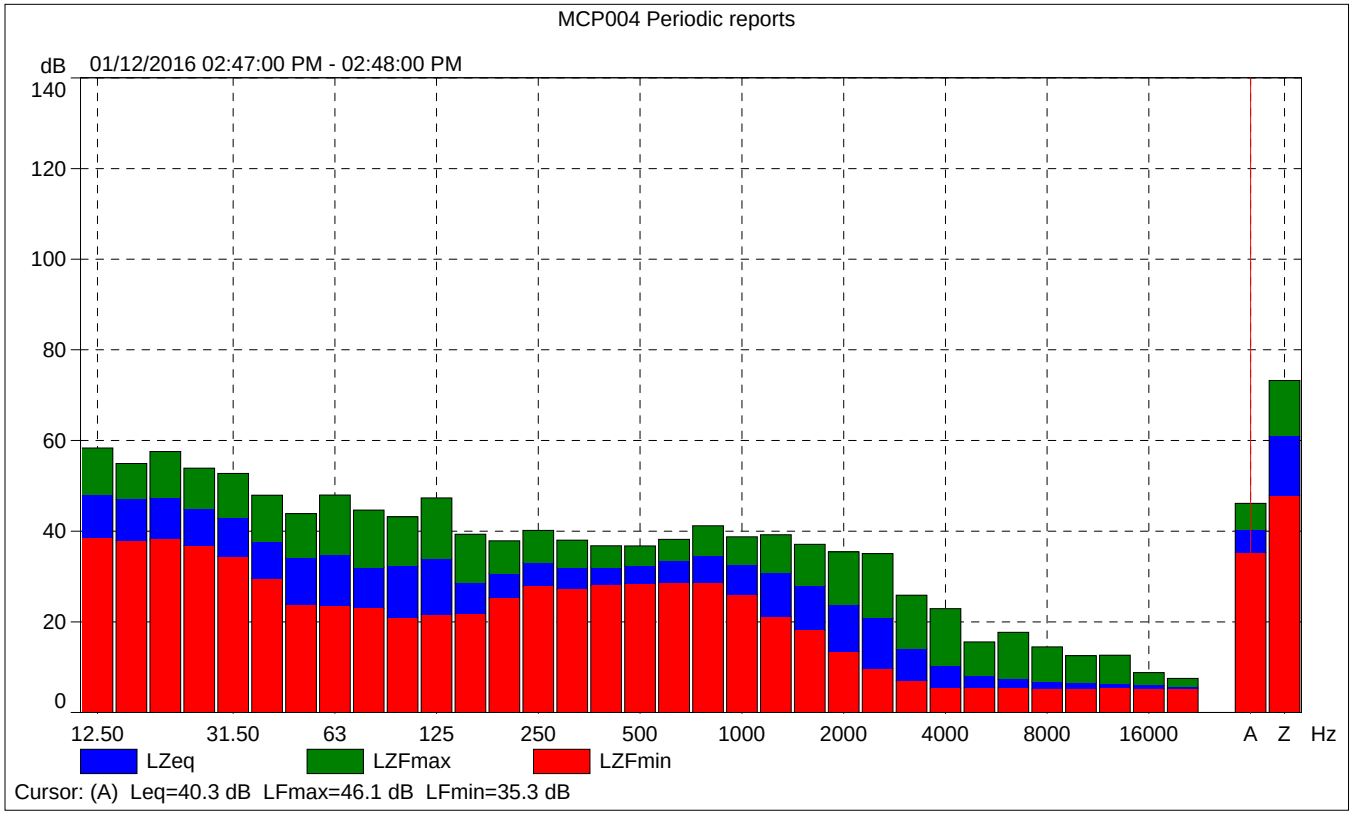
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			44.0	46.1	41.0
Time	02:47:50 PM	0:00:10			
Date	01/12/2016				

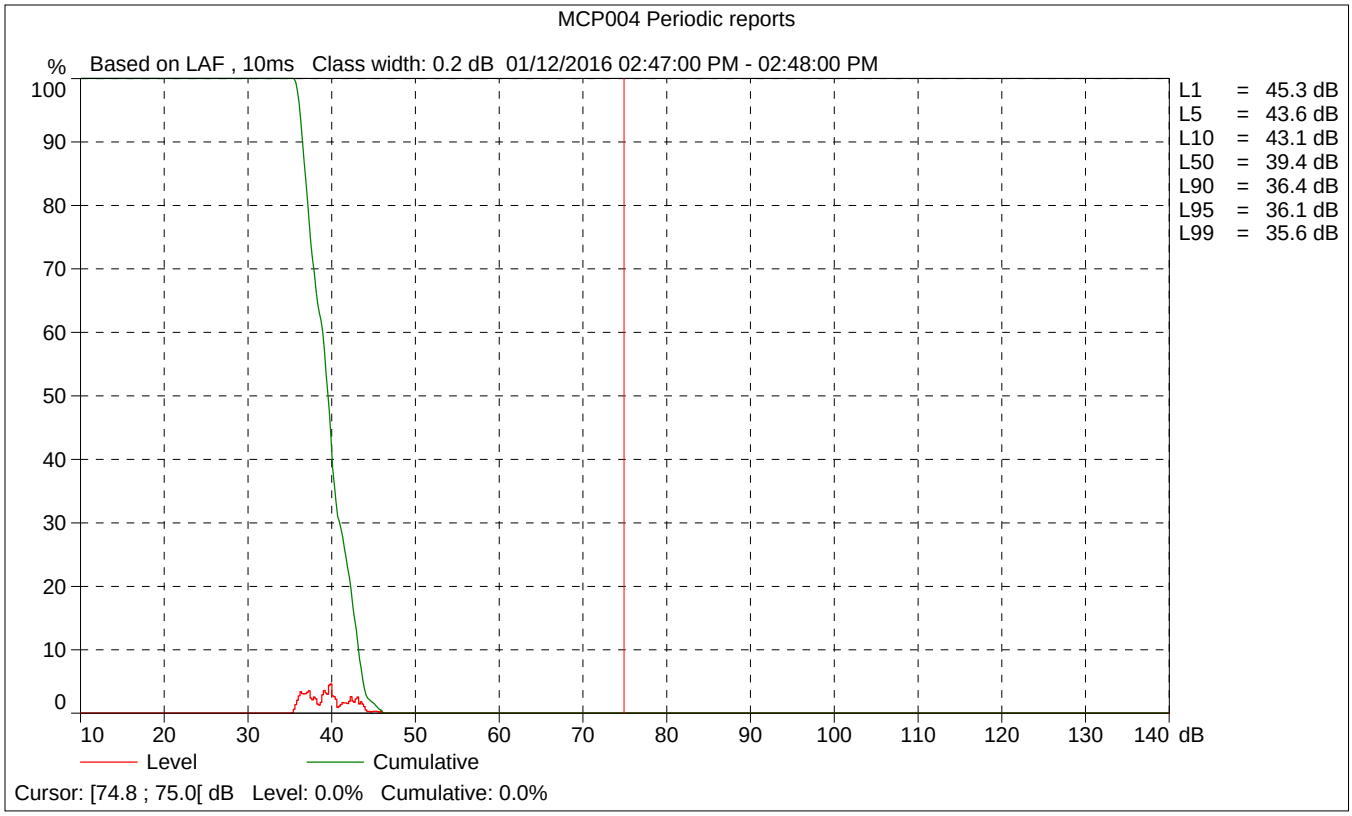

MCP004
dB
01/12/2016 02:47:50 PM - 02:48:00 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
Cursor: (A) Leq=43.1 dB


MCP004 Periodic reports
Sound
dB
140
120
100
80
60
40
20
02:44:00 PM
02:46:00 PM
02:48:00 PM
02:50:00 PM
02:52:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 01/12/2016 02:47:00 PM - 02:48:00 PM LAIeq=41.1 dB LAFmax=46.1 dB LCpeak=69.8 dB LAFmin=35.3 dB

MCP004 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	41.1	46.1	35.3
Time	02:47:00 PM	0:01:00				
Date	01/12/2016					




MCP004 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 02:47:00 PM - 02:48:00 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 45.3 dB
L5 = 43.6 dB
L10 = 43.1 dB
L50 = 39.4 dB
L90 = 36.4 dB
L95 = 36.1 dB
L99 = 35.6 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

Site Number: 5			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12, 2016			
Time: 3.34 pm			
Location: Existing Skate Rink, adjacent to audience stands (4 recreational ice skaters)			
Source of Peak Noise: Puck shots, skate activities			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
55.3	45.4	73.2	87.7

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** ☼ Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	2.4	42.2	30.23

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		01/12/2016 15:34:43
End Time:		01/12/2016 15:44:43
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.75

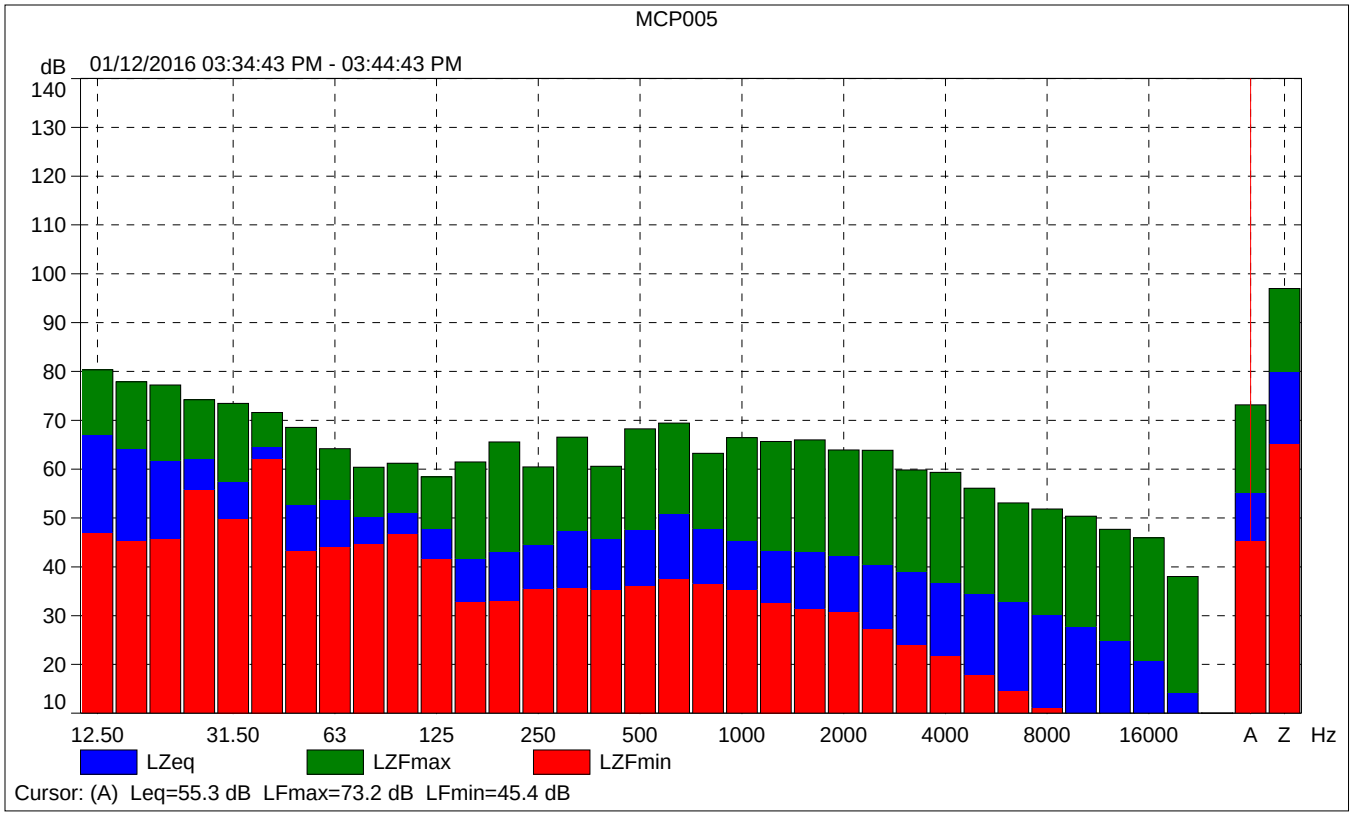
	Time	Frequency
Broadband (excl. Peak):	FSI	AZ
Broadband Peak:		C
Spectrum:	FS	Z

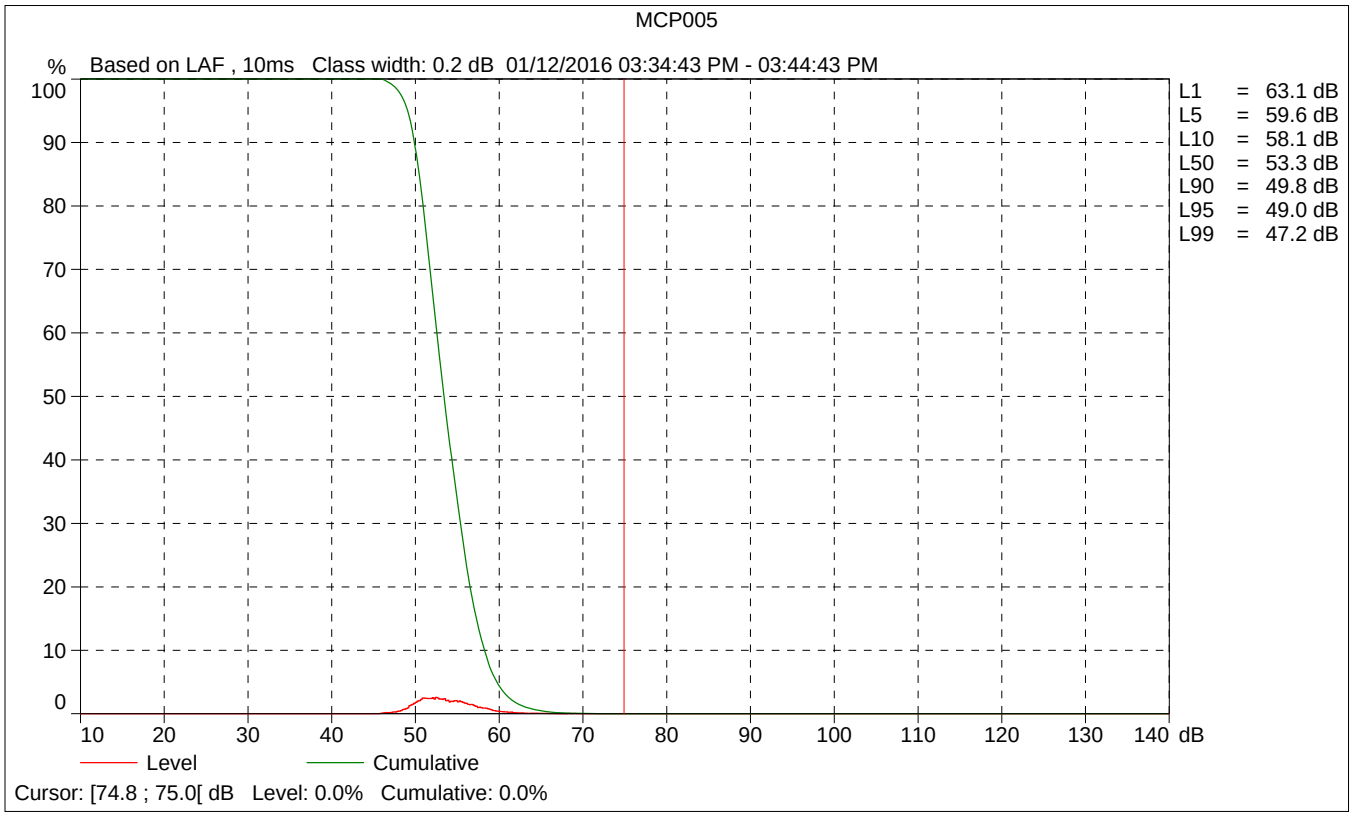
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

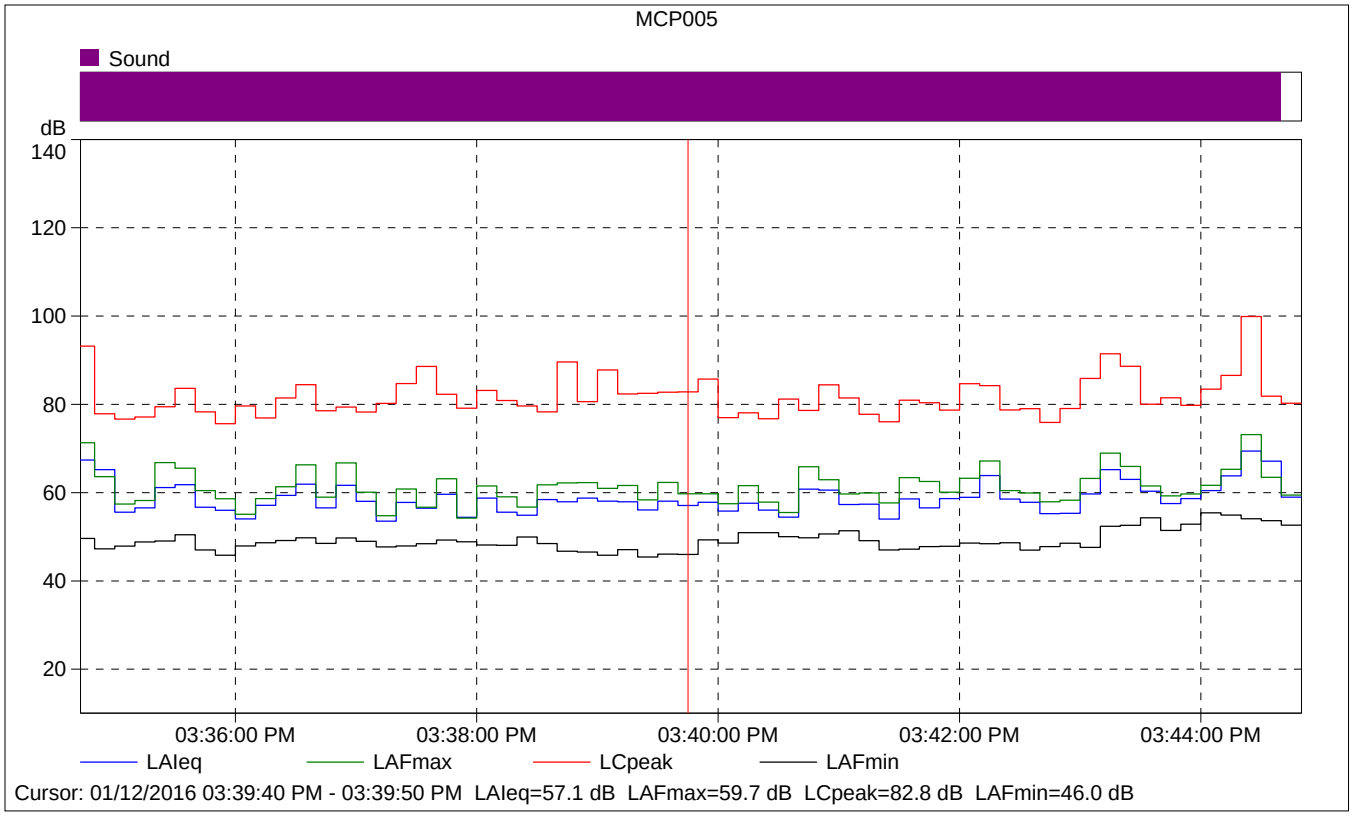
Calibration Time:		01/08/2016 16:38:05
Calibration Type:		External reference
Sensitivity:		64.3964111804962 mV/Pa

MCP005

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	55.3	73.2	45.4
Time	03:34:43 PM	03:44:43 PM	0:10:00				
Date	01/12/2016	01/12/2016					

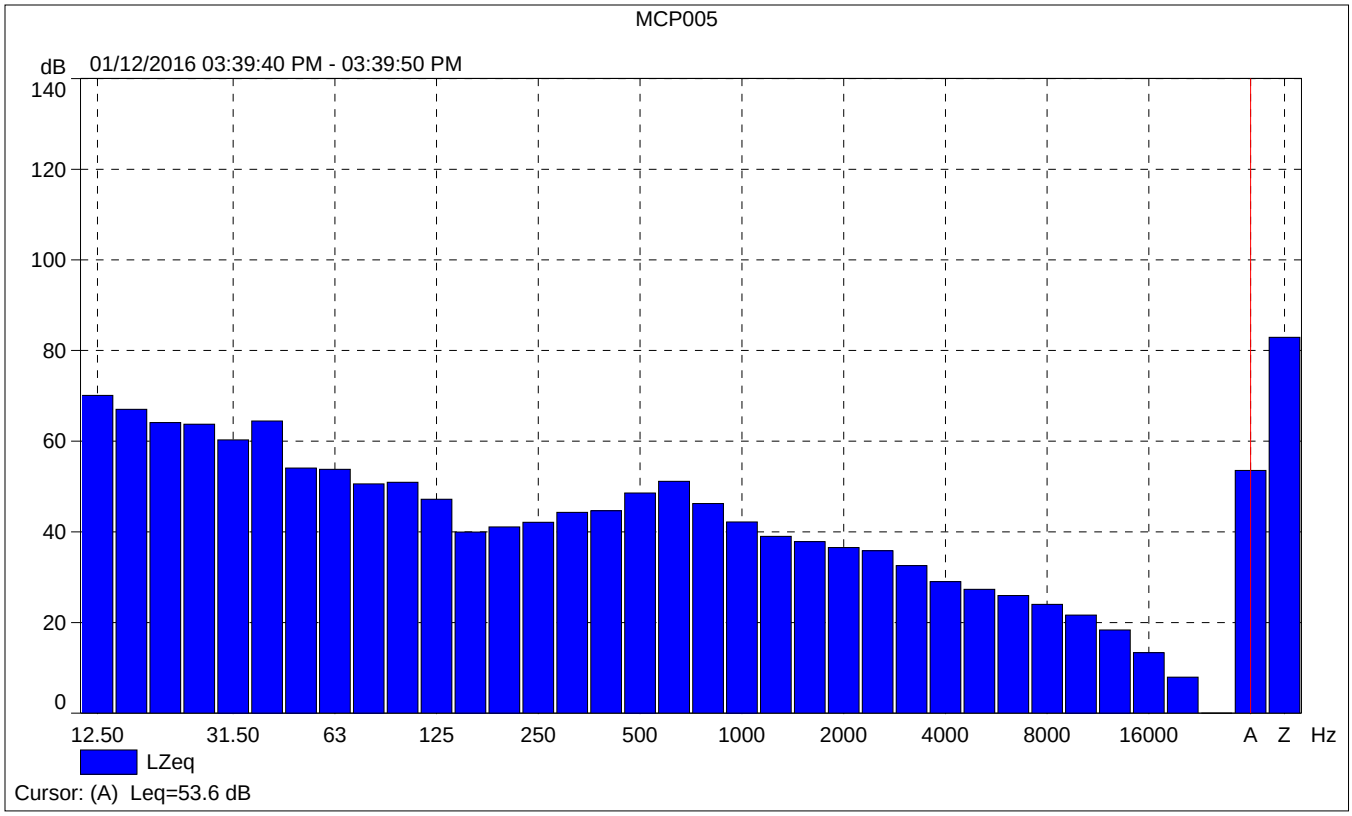

MCP005
dB
01/12/2016 03:34:43 PM - 03:44:43 PM
140
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=55.3 dB LFmax=73.2 dB LFmin=45.4 dB

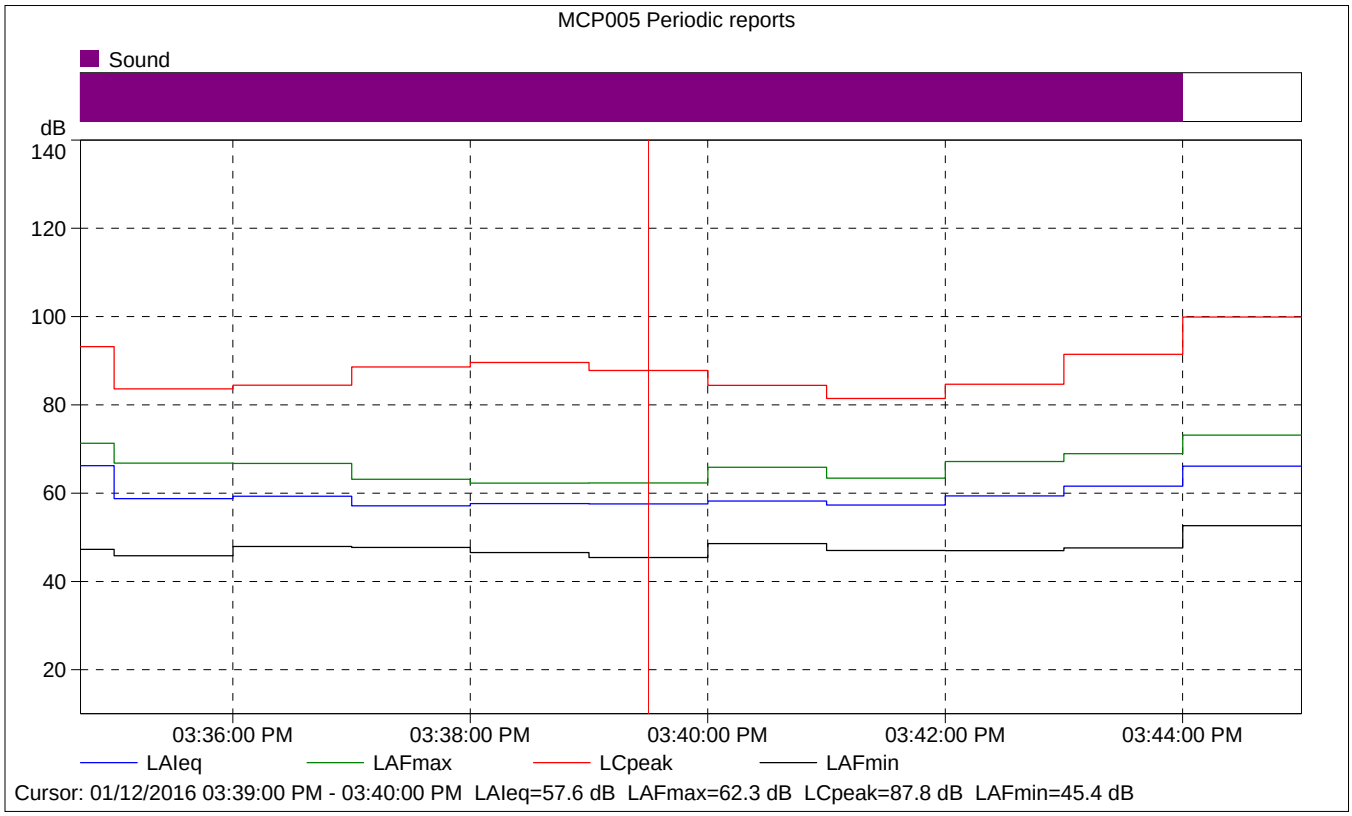

MCP005
%
Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 03:34:43 PM - 03:44:43 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 63.1 dB
L5 = 59.6 dB
L10 = 58.1 dB
L50 = 53.3 dB
L90 = 49.8 dB
L95 = 49.0 dB
L99 = 47.2 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



MCP005

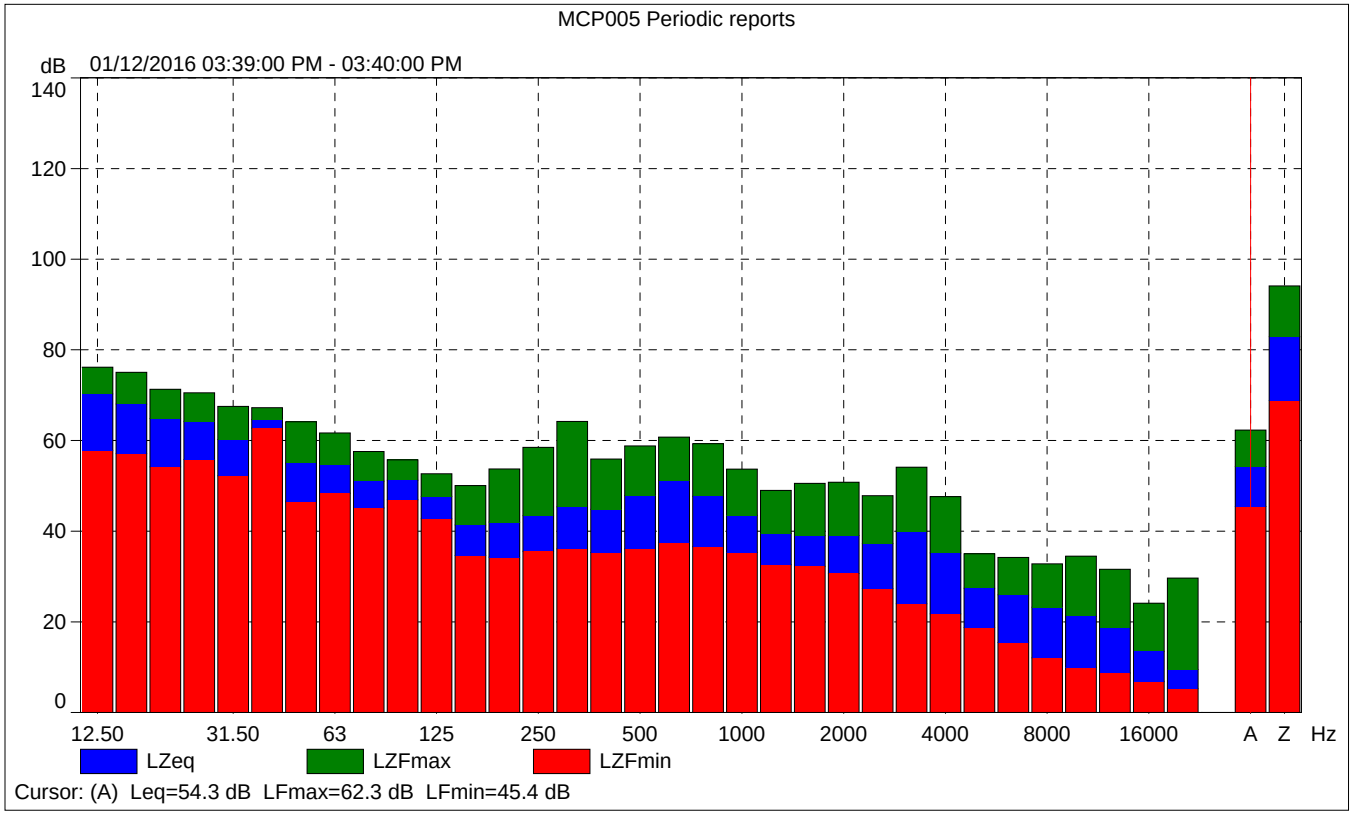
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			57.1	59.7	46.0
Time	03:39:40 PM	0:00:10			
Date	01/12/2016				

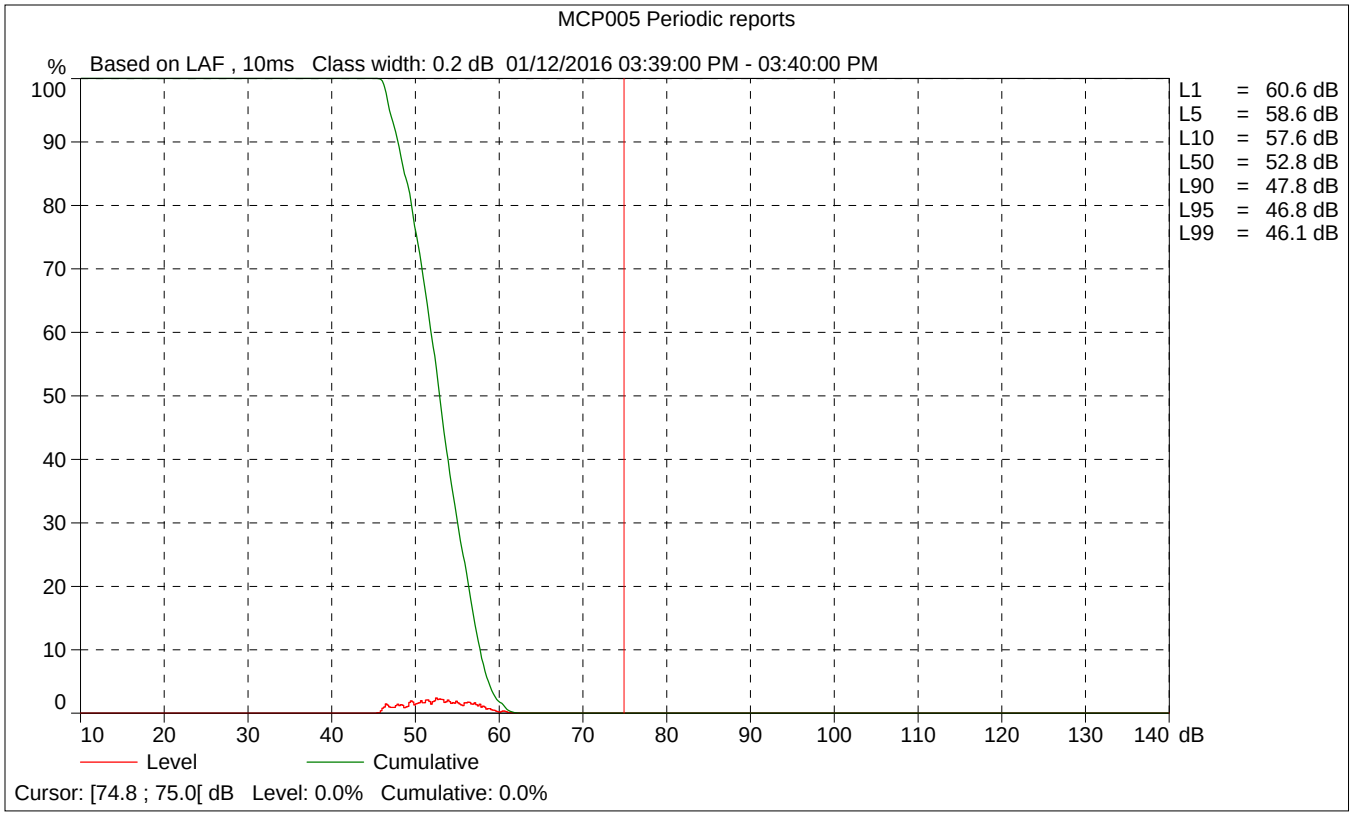

MCP005
dB
01/12/2016 03:39:40 PM - 03:39:50 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
Cursor: (A) Leq=53.6 dB


MCP005 Periodic reports
Sound
dB
140
120
100
80
60
40
20
03:36:00 PM
03:38:00 PM
03:40:00 PM
03:42:00 PM
03:44:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 01/12/2016 03:39:00 PM - 03:40:00 PM LAIeq=57.6 dB LAFmax=62.3 dB LCpeak=87.8 dB LAFmin=45.4 dB

MCP005 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	57.6	62.3	45.4
Time	03:39:00 PM	0:01:00				
Date	01/12/2016					




MCP005 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 03:39:00 PM - 03:40:00 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 60.6 dB
L5 = 58.6 dB
L10 = 57.6 dB
L50 = 52.8 dB
L90 = 47.8 dB
L95 = 46.8 dB
L99 = 46.1 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

Site Number: 6			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12, 2016			
Time: 3.46 pm			
Location: Adjacent to chiller units and equipment storage room (10 feet from chiller)			
Source of Peak Noise: Compressor actuation from the chiller			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
75.2	73.0	78.1	95.5

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** ☼ Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	2.7	41.5	30.21

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		01/12/2016 15:46:47
End Time:		01/12/2016 15:51:47
Elapsed Time:		00:05:00
Bandwidth:		1/3-octave
Max Input Level:		138.75

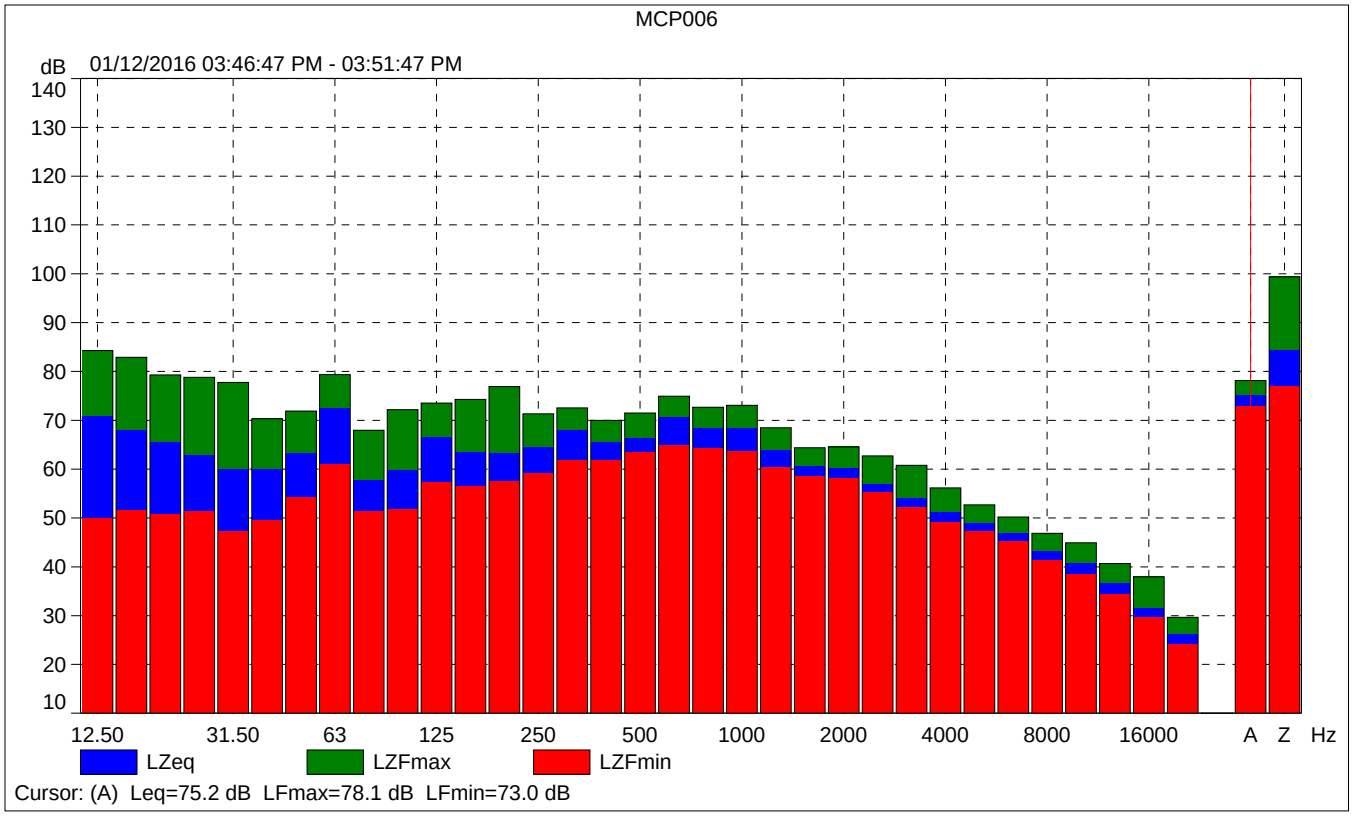
	Time	Frequency
Broadband (excl. Peak):	FSI	AZ
Broadband Peak:		C
Spectrum:	FS	Z

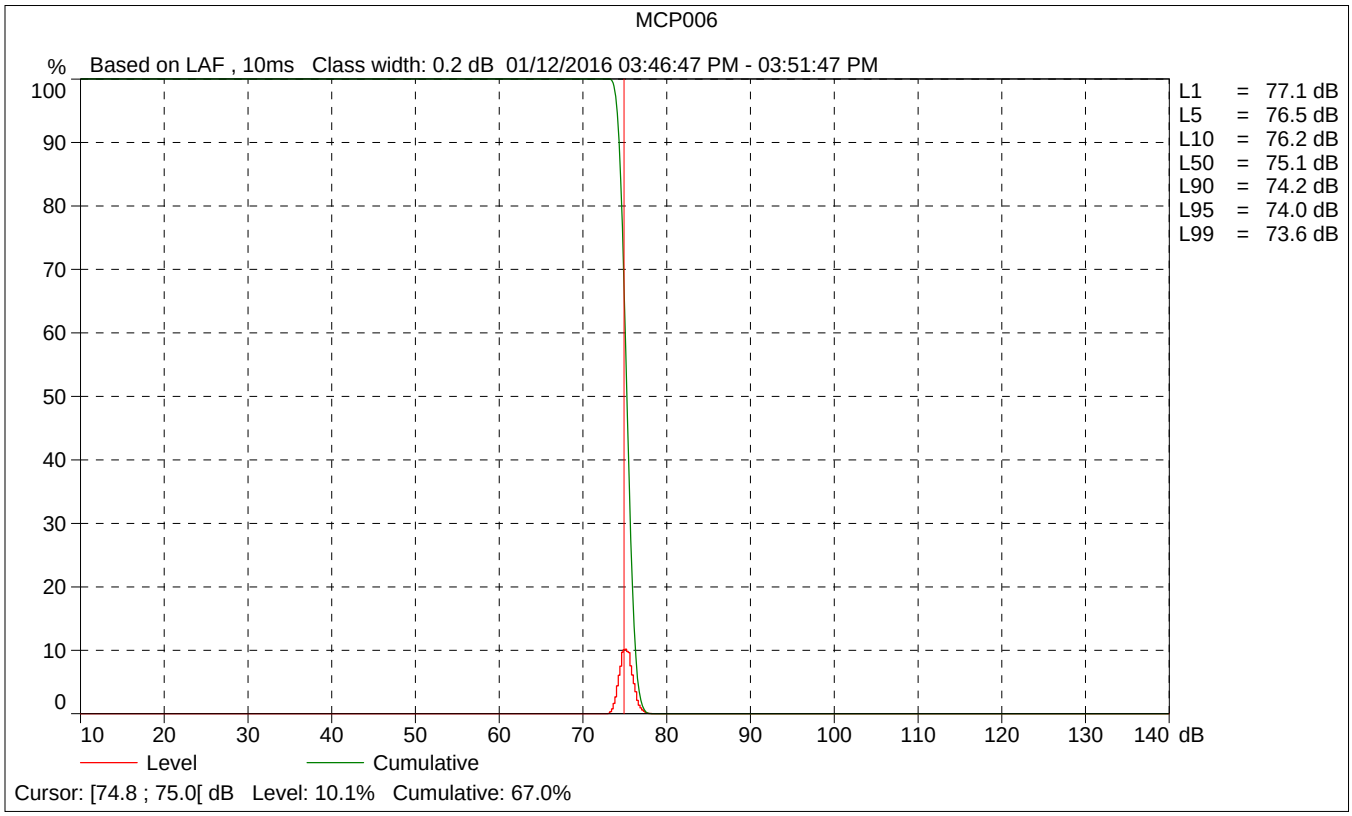
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

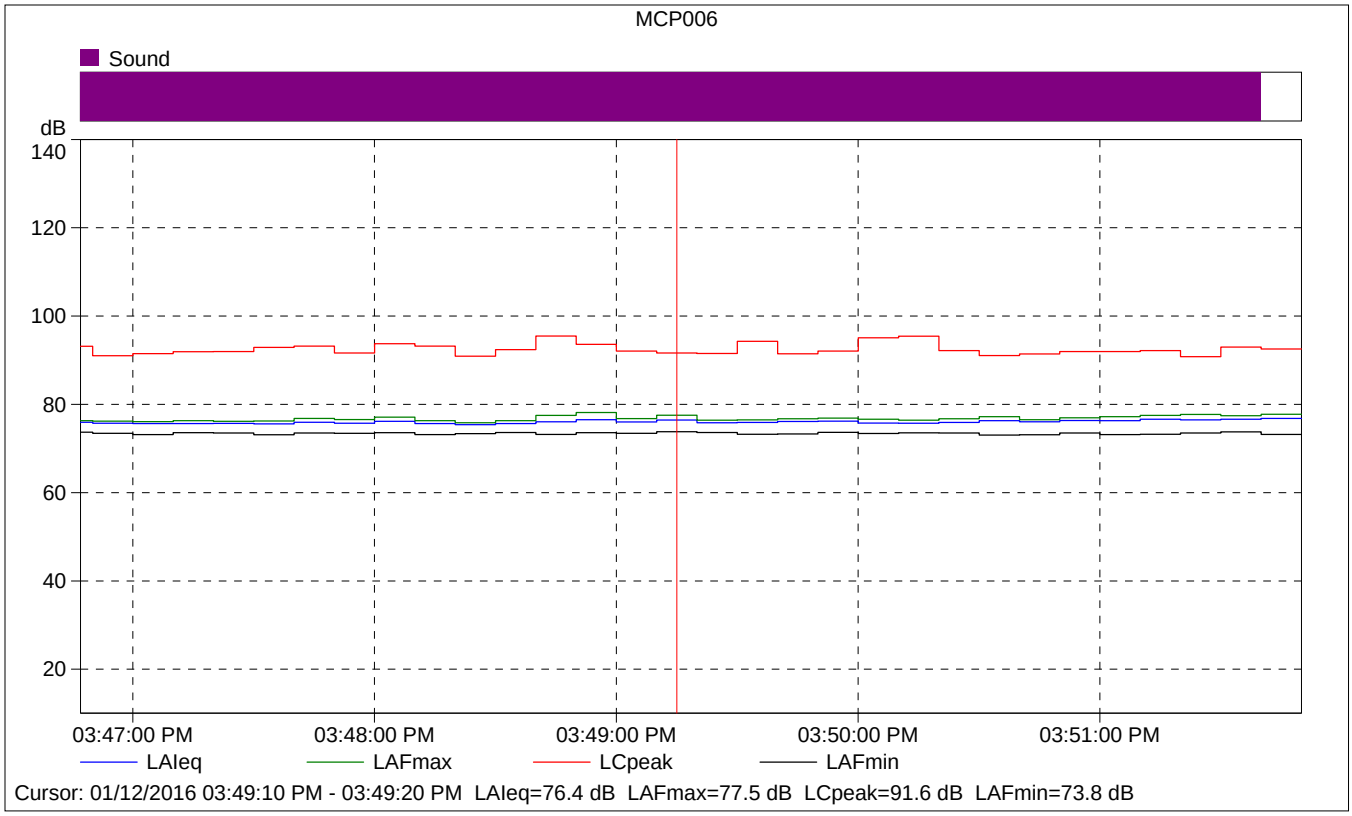
Calibration Time:		01/08/2016 16:38:05
Calibration Type:		External reference
Sensitivity:		64.3964111804962 mV/Pa

MCP006

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	75.2	78.1	73.0
Time	03:46:47 PM	03:51:47 PM	0:05:00				
Date	01/12/2016	01/12/2016					

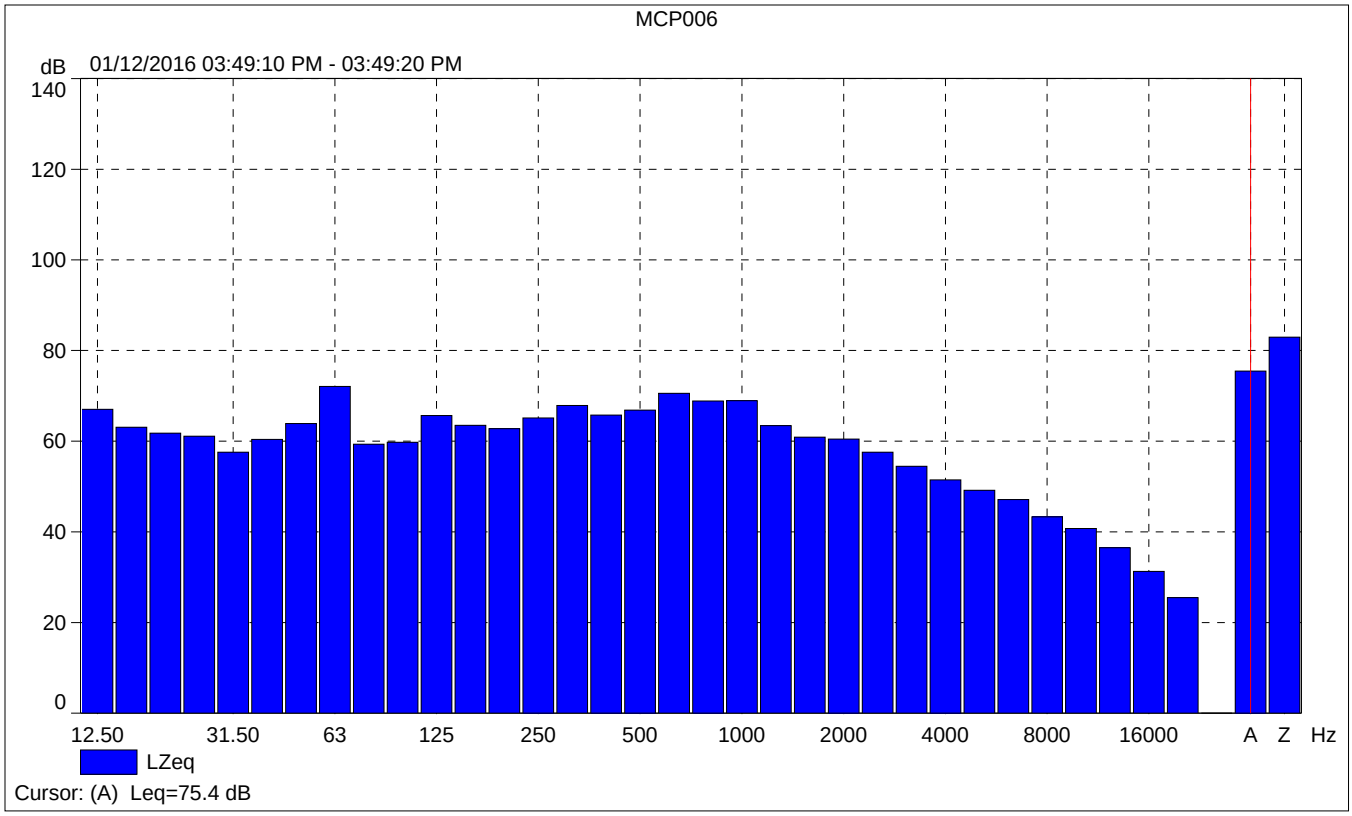

MCP006
dB
01/12/2016 03:46:47 PM - 03:51:47 PM
140
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=75.2 dB LFmax=78.1 dB LFmin=73.0 dB

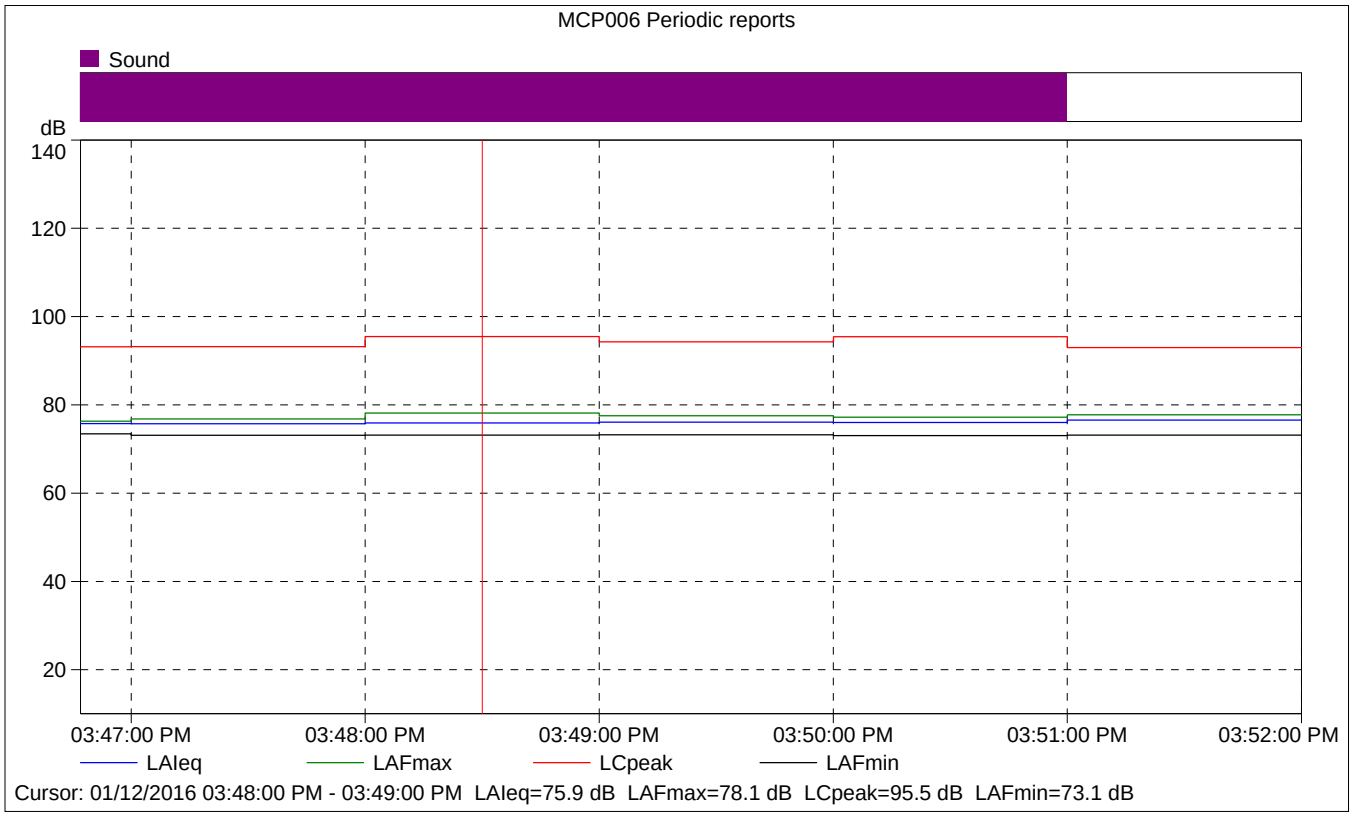

MCP006
%
Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 03:46:47 PM - 03:51:47 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 77.1 dB
L5 = 76.5 dB
L10 = 76.2 dB
L50 = 75.1 dB
L90 = 74.2 dB
L95 = 74.0 dB
L99 = 73.6 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 10.1% Cumulative: 67.0%



MCP006

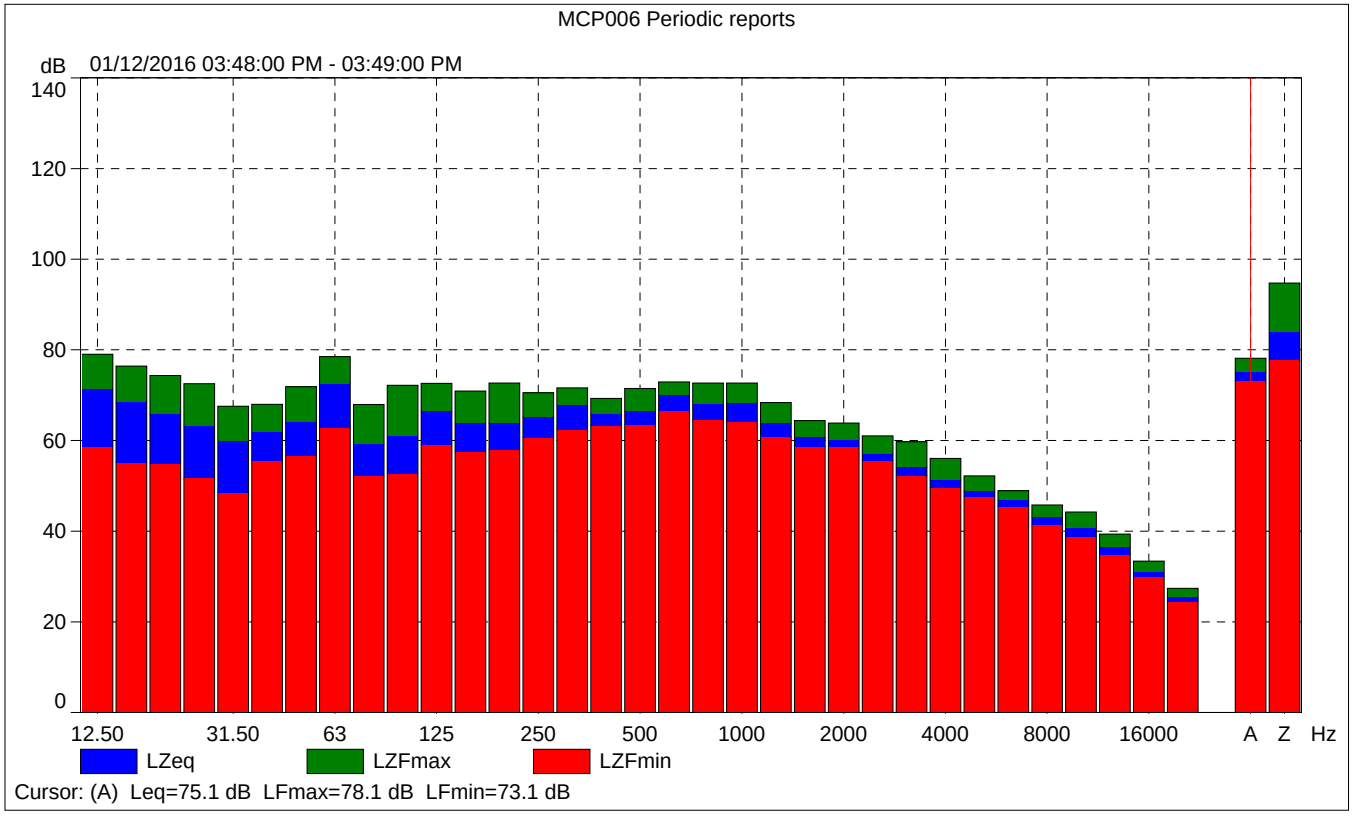
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			76.4	77.5	73.8
Time	03:49:10 PM	0:00:10			
Date	01/12/2016				

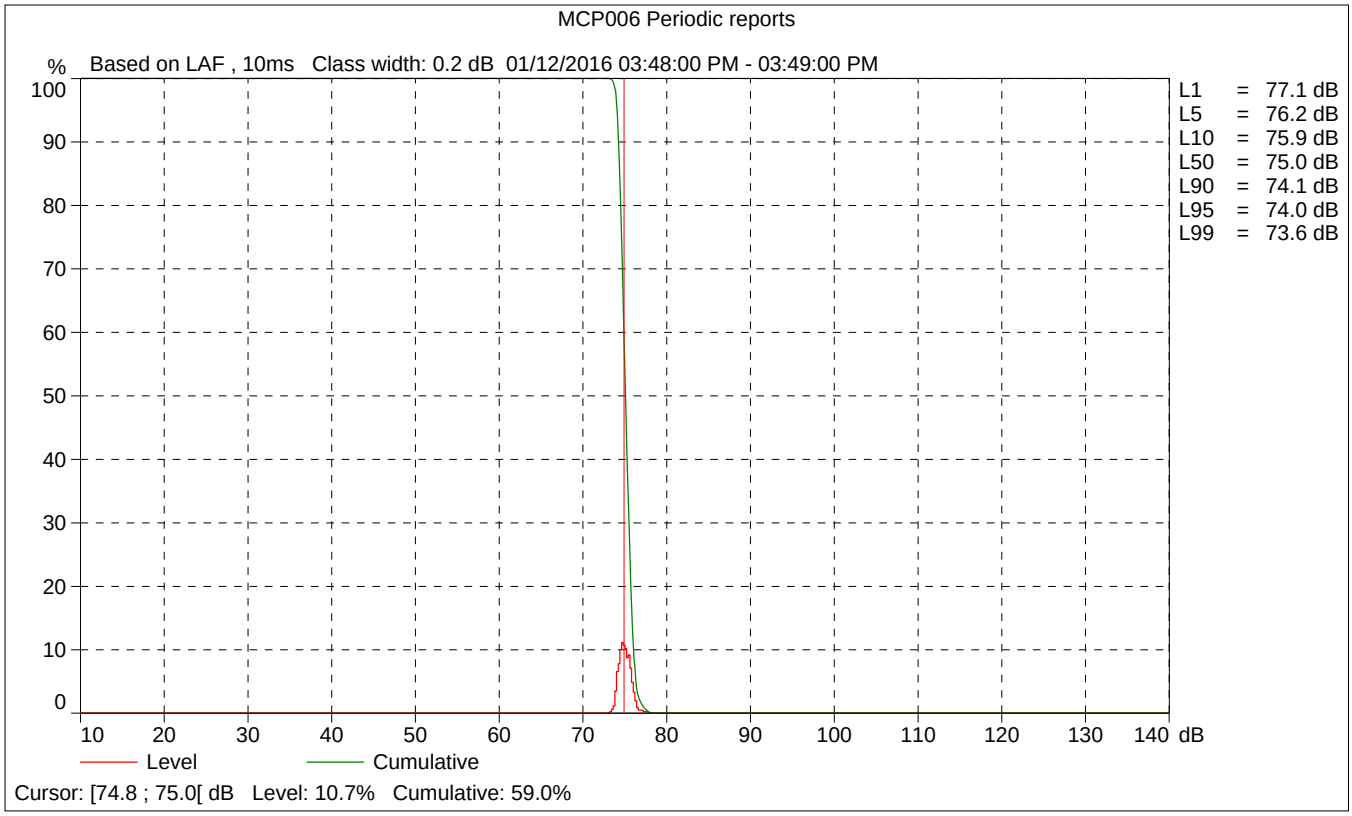

MCP006
dB
01/12/2016 03:49:10 PM - 03:49:20 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
Cursor: (A) Leq=75.4 dB


MCP006 Periodic reports
Sound
dB
140
120
100
80
60
40
20
03:47:00 PM
03:48:00 PM
03:49:00 PM
03:50:00 PM
03:51:00 PM
03:52:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 01/12/2016 03:48:00 PM - 03:49:00 PM LAIeq=75.9 dB LAFmax=78.1 dB LCpeak=95.5 dB LAFmin=73.1 dB

MCP006 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	75.9	78.1	73.1
Time	03:48:00 PM	0:01:00				
Date	01/12/2016					




MCP006 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 03:48:00 PM - 03:49:00 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
Level
Cumulative
L1 = 77.1 dB
L5 = 76.2 dB
L10 = 75.9 dB
L50 = 75.0 dB
L90 = 74.1 dB
L95 = 74.0 dB
L99 = 73.6 dB
Cursor: [74.8 ; 75.0[dB Level: 10.7% Cumulative: 59.0%

Site Number: 7			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12, 2016			
Time: 7:48 pm			
Location: Existing skate rink during a hockey practice game (league play)			
Source of Peak Noise: Hockey puck shots, ricochet of puck off the sideboards.			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
69.6	50.1	99.4	104.3

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** ☼ Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	2.1	24.6	30.22

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		01/12/2016 19:48:45
End Time:		01/12/2016 19:58:45
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.75

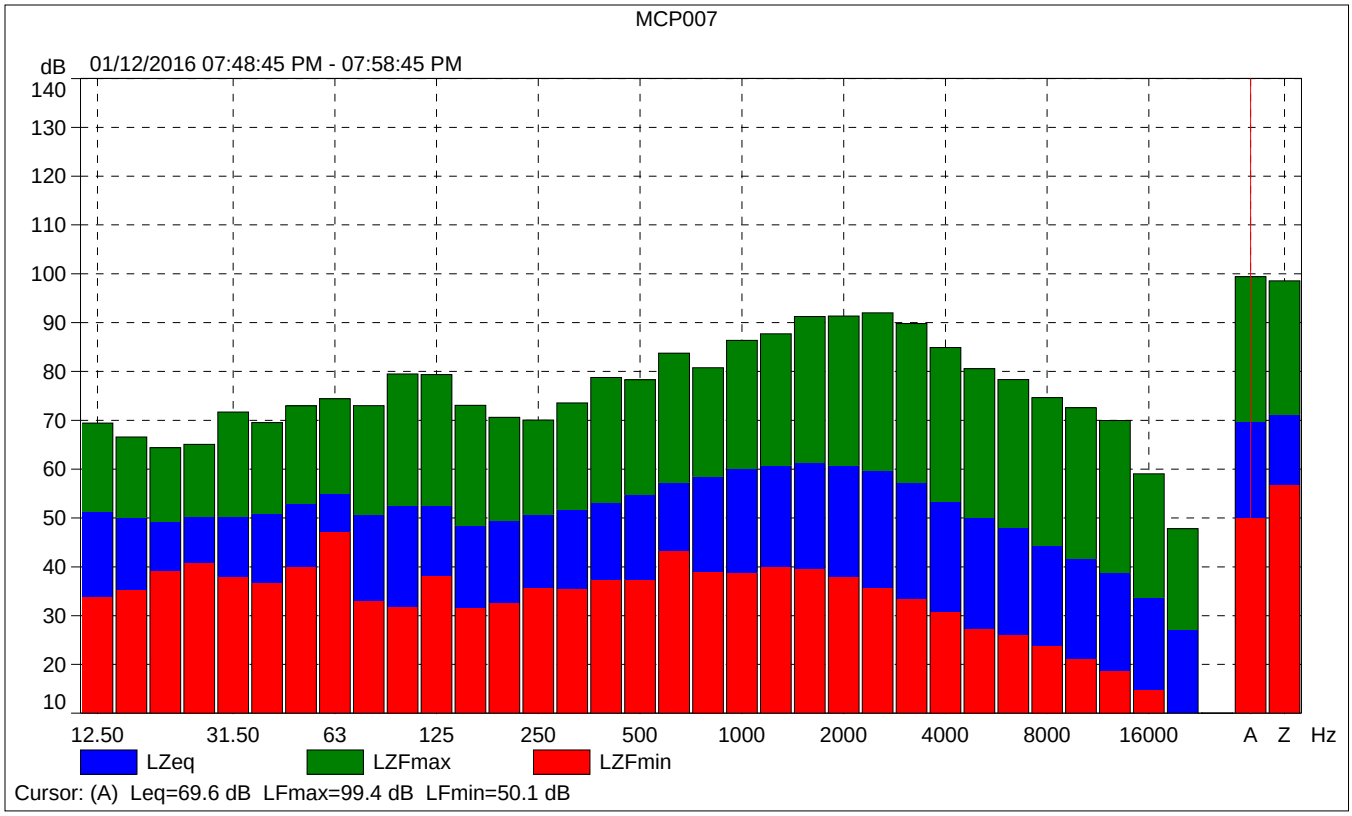
	Time	Frequency
Broadband (excl. Peak):	FSI	AZ
Broadband Peak:		C
Spectrum:	FS	Z

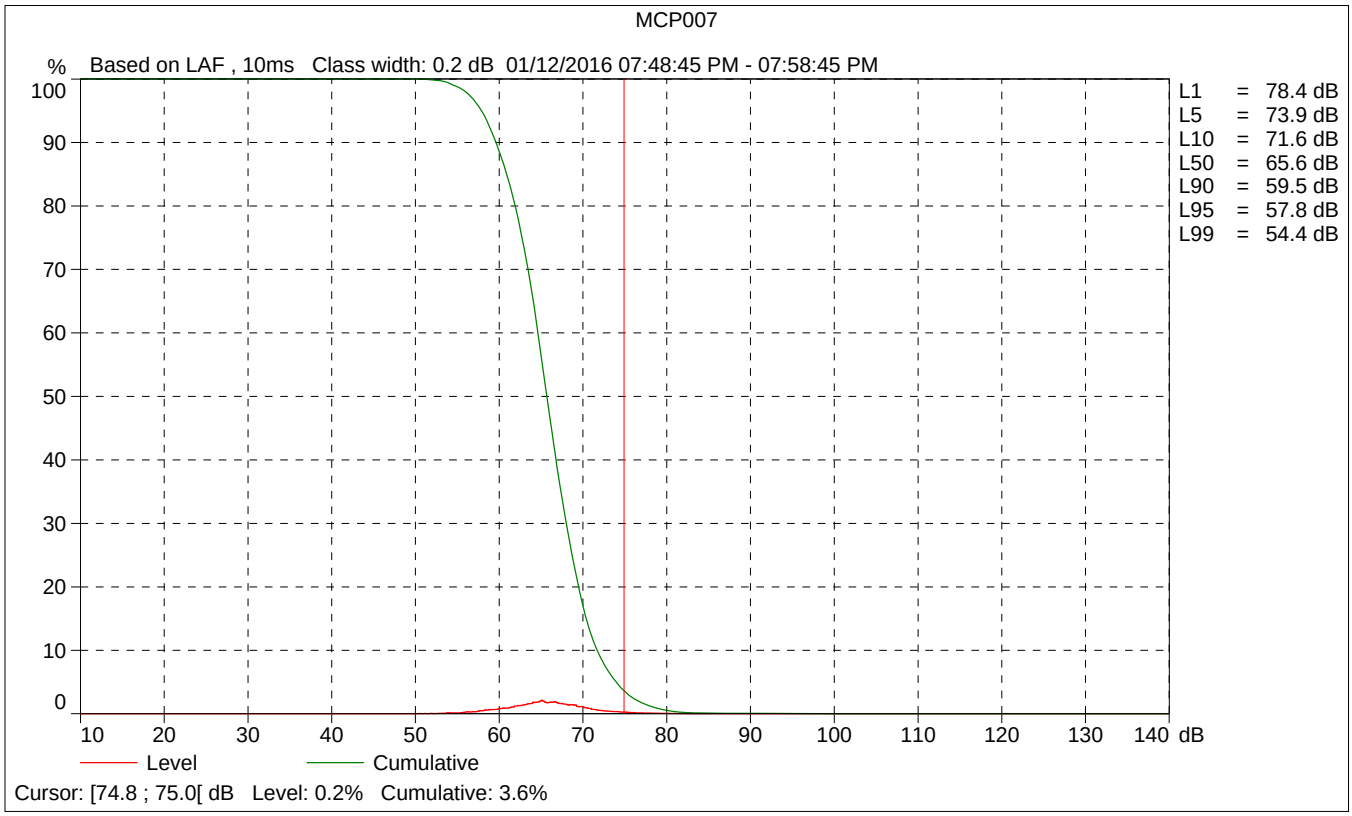
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

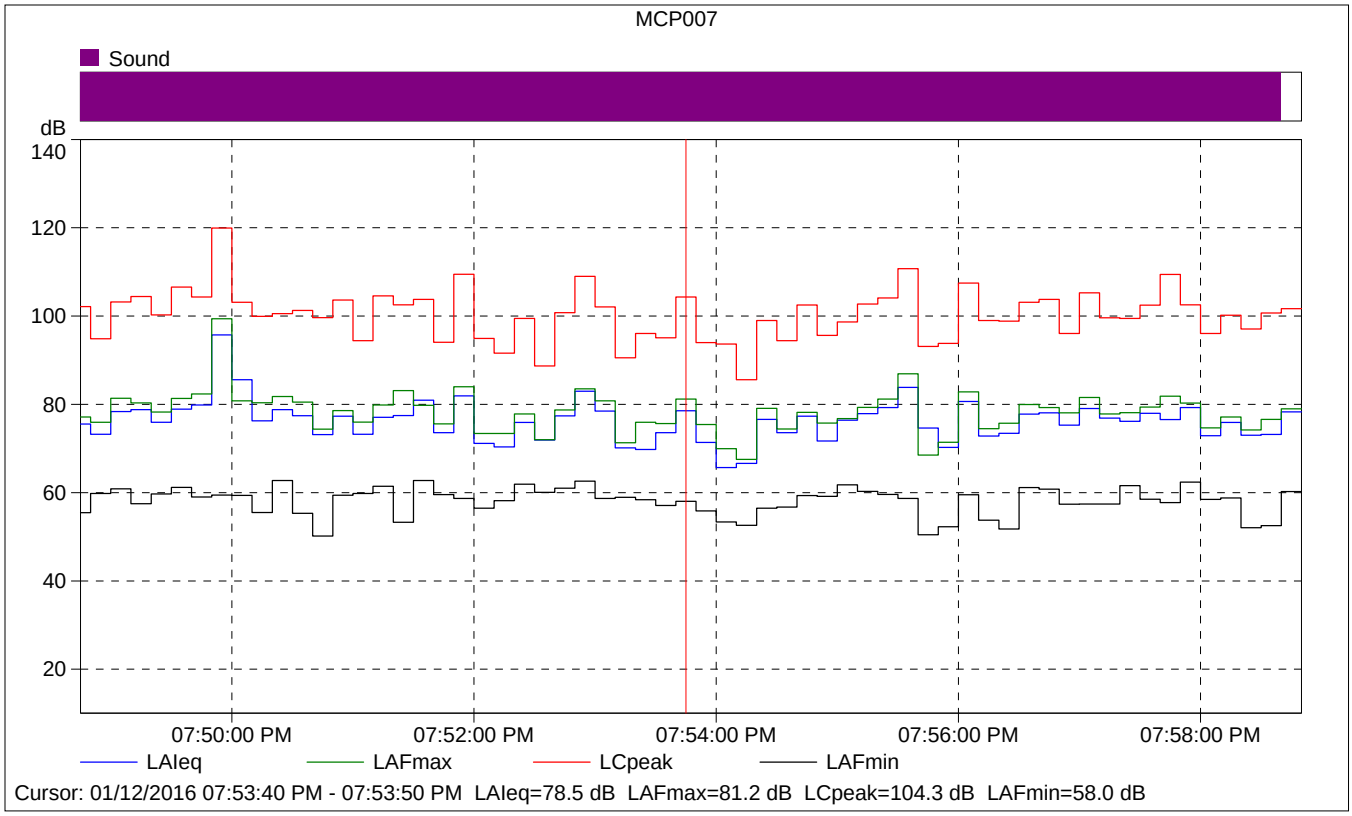
Calibration Time:		01/08/2016 16:38:05
Calibration Type:		External reference
Sensitivity:		64.3964111804962 mV/Pa

MCP007

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	69.6	99.4	50.1
Time	07:48:45 PM	07:58:45 PM	0:10:00				
Date	01/12/2016	01/12/2016					

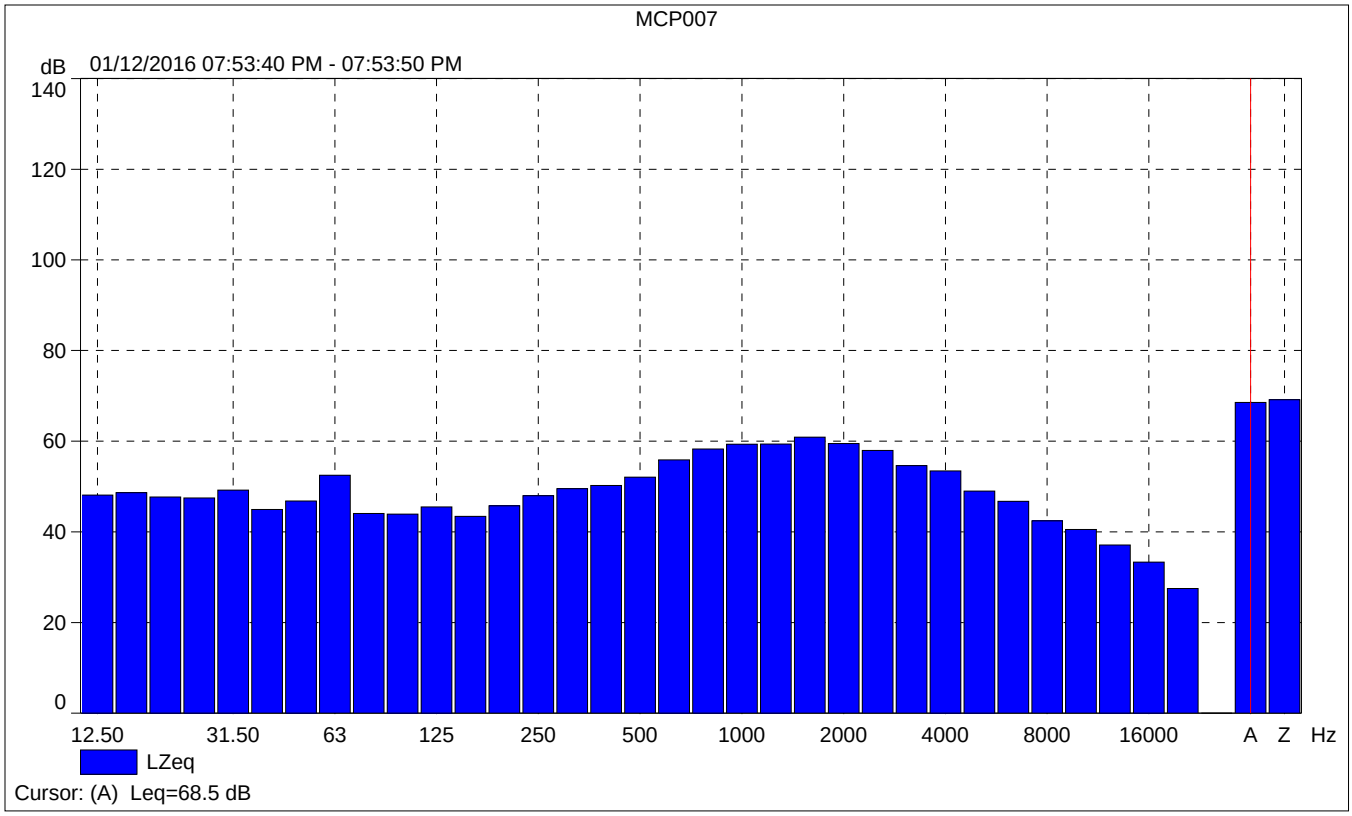

MCP007
dB
01/12/2016 07:48:45 PM - 07:58:45 PM
140
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=69.6 dB LFmax=99.4 dB LFmin=50.1 dB

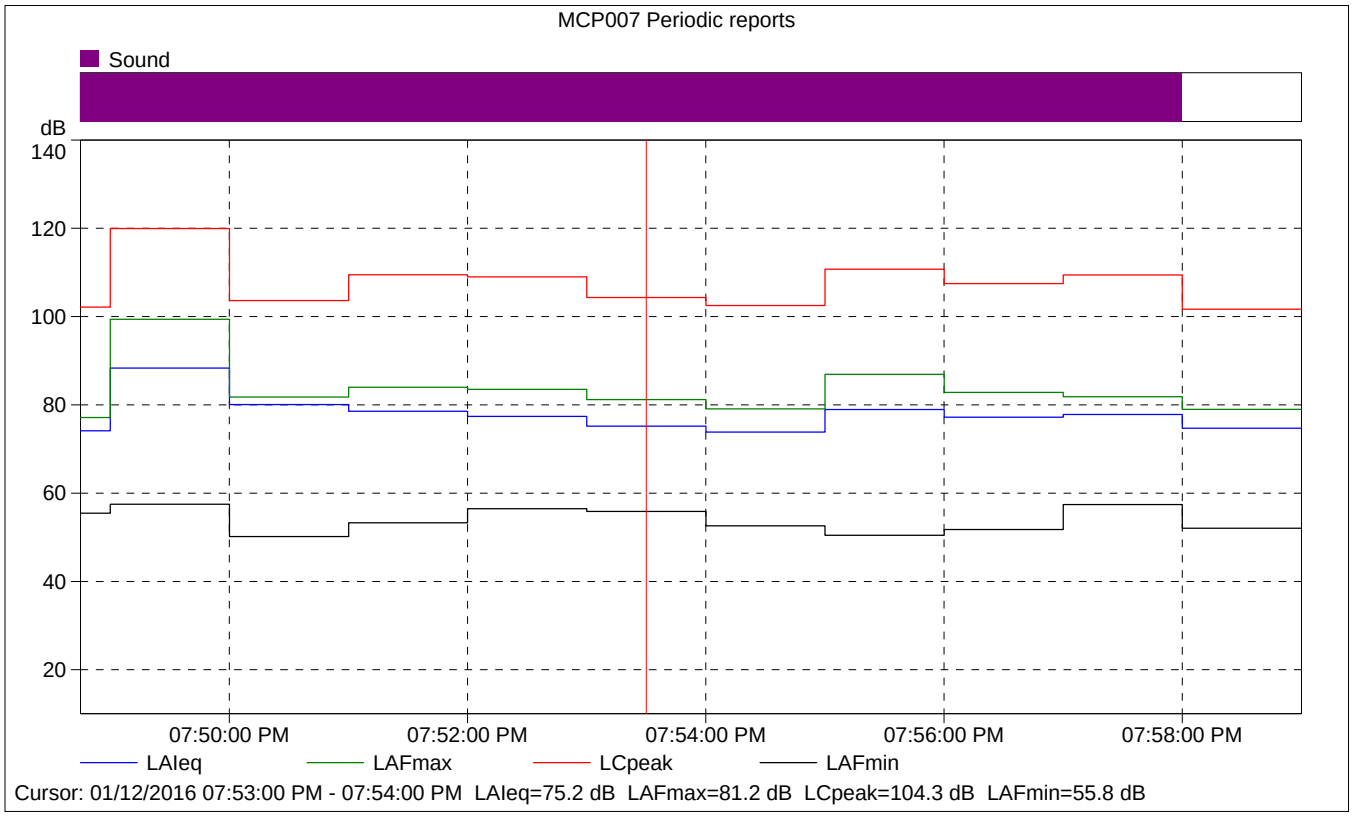

MCP007
%
Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 07:48:45 PM - 07:58:45 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 78.4 dB
L5 = 73.9 dB
L10 = 71.6 dB
L50 = 65.6 dB
L90 = 59.5 dB
L95 = 57.8 dB
L99 = 54.4 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.2% Cumulative: 3.6%



MCP007

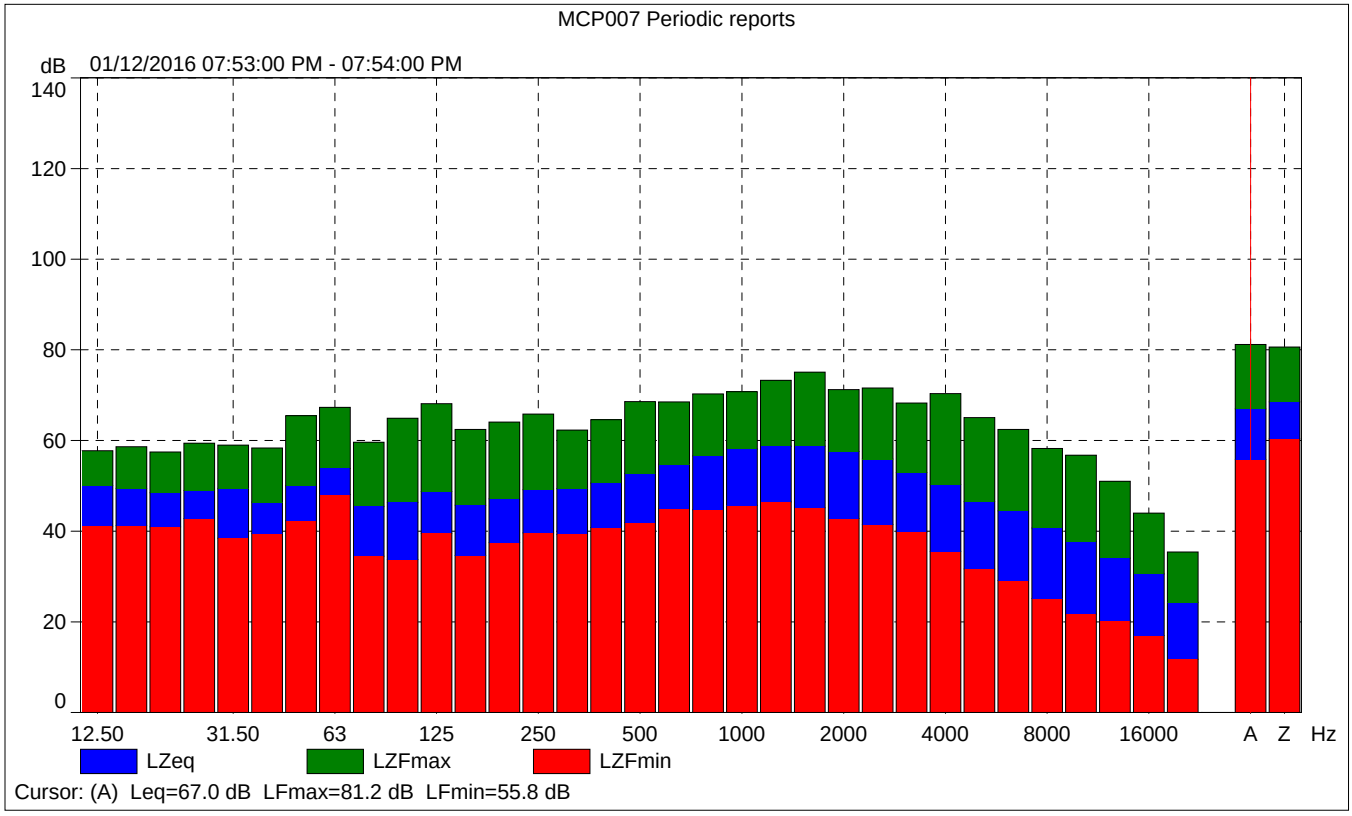
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			78.5	81.2	58.0
Time	07:53:40 PM	0:00:10			
Date	01/12/2016				

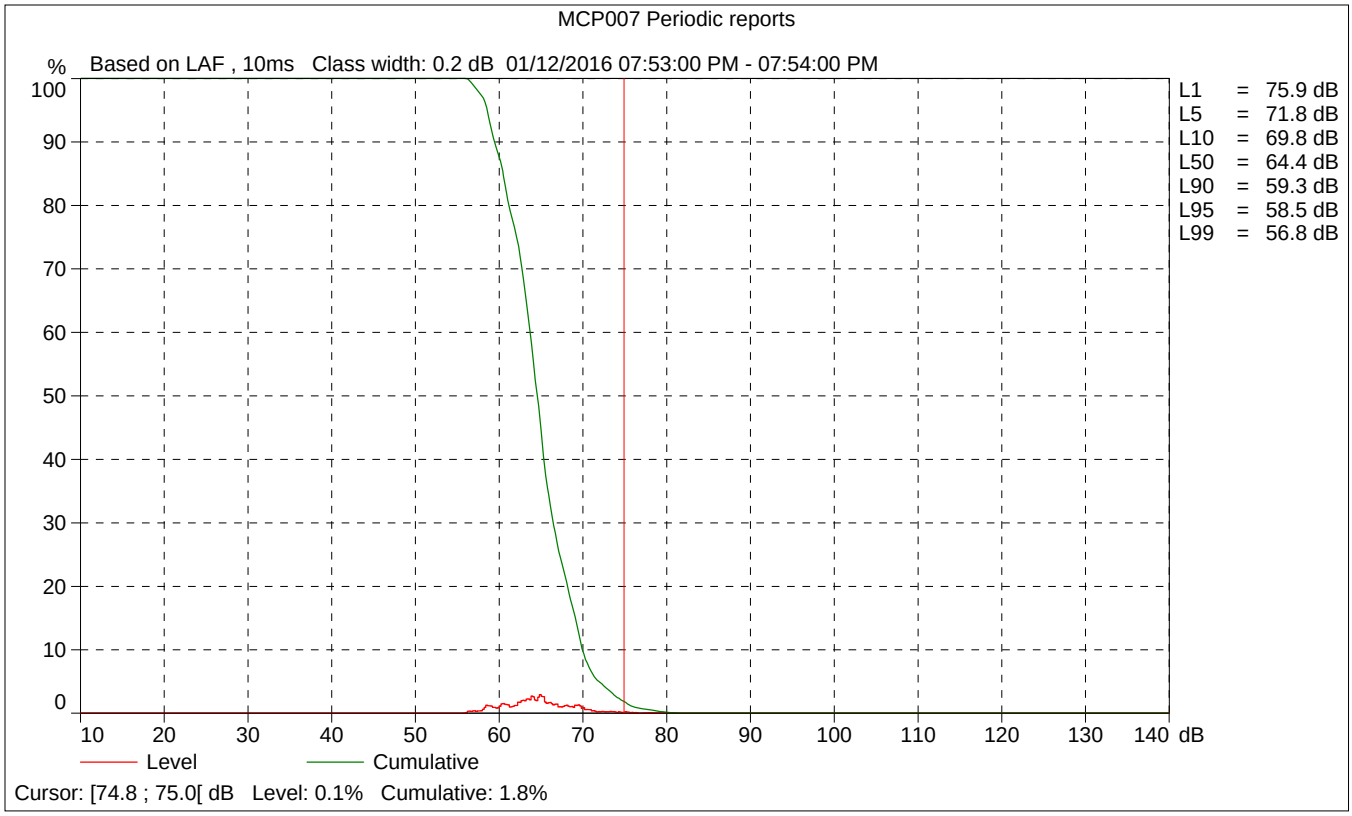

MCP007
dB
01/12/2016 07:53:40 PM - 07:53:50 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
Z
Hz
LZeq
Cursor: (A) Leq=68.5 dB


MCP007 Periodic reports
Sound
dB
140
120
100
80
60
40
20
07:50:00 PM
07:52:00 PM
07:54:00 PM
07:56:00 PM
07:58:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 01/12/2016 07:53:00 PM - 07:54:00 PM LAIeq=75.2 dB LAFmax=81.2 dB LCpeak=104.3 dB LAFmin=55.8 dB

MCP007 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	75.2	81.2	55.8
Time	07:53:00 PM	0:01:00				
Date	01/12/2016					



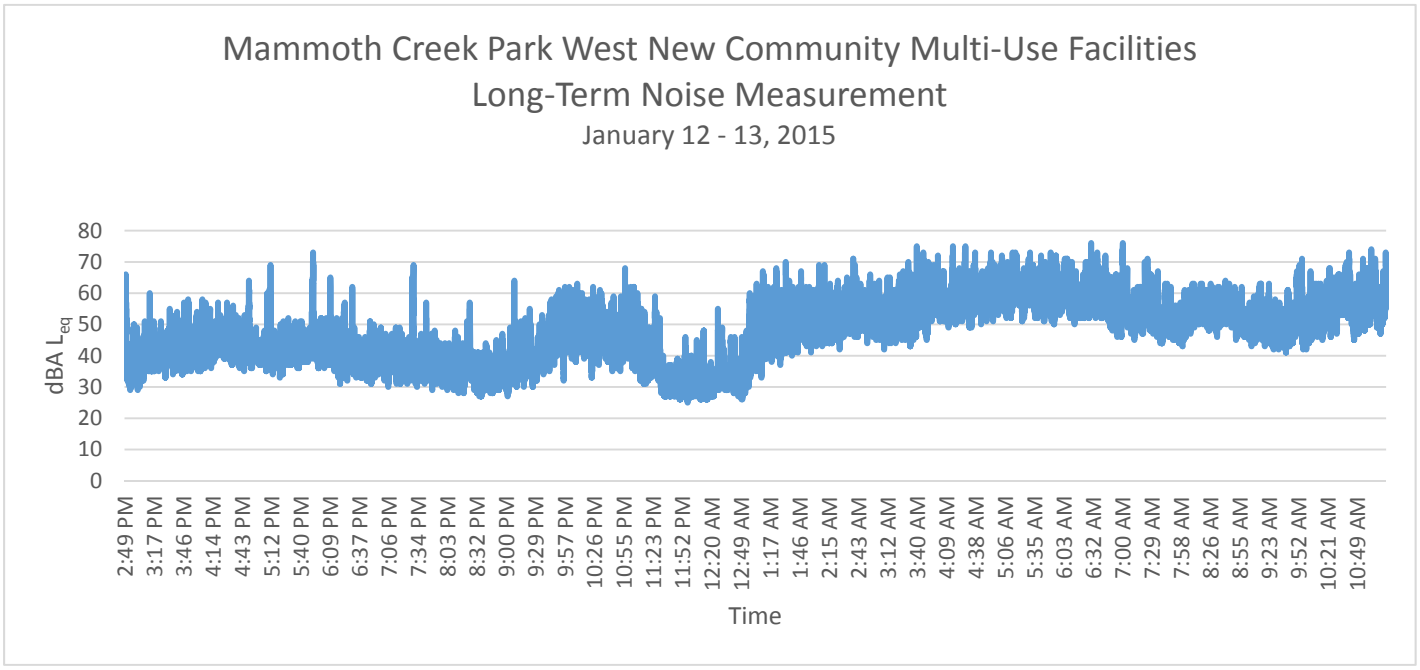

MCP007 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 01/12/2016 07:53:00 PM - 07:54:00 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
Level
Cumulative
L1 = 75.9 dB
L5 = 71.8 dB
L10 = 69.8 dB
L50 = 64.4 dB
L90 = 59.3 dB
L95 = 58.5 dB
L99 = 56.8 dB
Cursor: [74.8 ; 75.0[dB Level: 0.1% Cumulative: 1.8%

Site Number: Long Term 1			
Recorded By: Eddie Torres			
Job Number: 151373			
Date: January 12-13, 2016			
Time: setup = 2:49 pm (1/12/16), tear down = 11:19 am (1/13/16)			
Location: Mammoth Creek Park West, just east of La Vista Blanc Condominiums			
Source of Peak Noise:			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
55.1	15.7	80.1	102.9

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**1/4/2016**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**1/4/2016**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**1/4/2016**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**1/4/2016**	

Weather Data			
Est.	**Duration:** 20 hours	**Sky:** ☼ Sunny	
	Note:	**Sensor Height (ft):** 5 ft	
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	<5	23 – 45	30.25

Photo of Measurement Location


Mammoth Creek Park West New Community Multi-Use Facilities
Long-Term Noise Measurement
January 12 - 13, 2015
dBA Leq
80
70
60
50
40
30
20
10
0
2:49 PM
3:17 PM
3:46 PM
4:14 PM
4:43 PM
5:12 PM
5:40 PM
6:09 PM
6:37 PM
7:06 PM
7:34 PM
8:03 PM
8:32 PM
9:00 PM
9:29 PM
9:57 PM
10:26 PM
10:55 PM
11:23 PM
11:52 PM
12:20 AM
12:49 AM
1:17 AM
1:46 AM
2:15 AM
2:43 AM
3:12 AM
3:40 AM
4:09 AM
4:38 AM
5:06 AM
5:35 AM
6:03 AM
6:32 AM
7:00 AM
7:29 AM
7:58 AM
8:26 AM
8:55 AM
9:23 AM
9:52 AM
10:21 AM
10:49 AM
Time

Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	North of Meridian Blvd		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	10229
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**1022.9**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	25
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	36
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

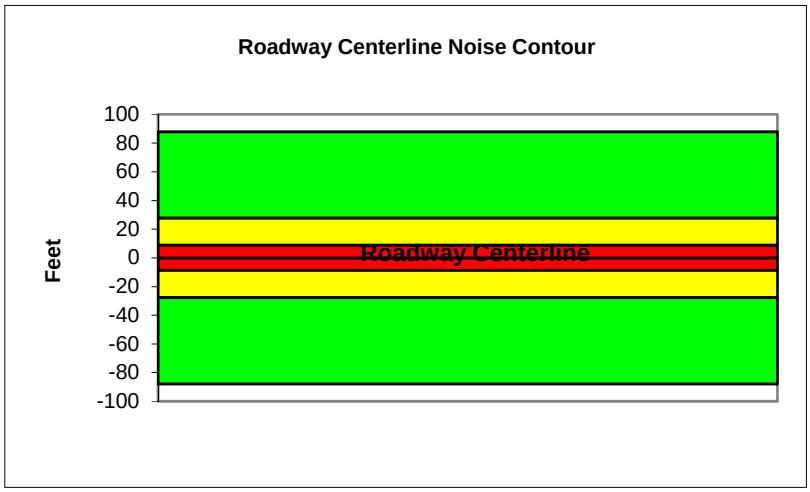
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.7	54.5	52.7	46.6	55.3	55.9
Medium Trucks:	57.4	49.3	42.9	41.3	49.8	50.1
Heavy Trucks:	63.5	51.6	42.5	43.7	54.1	54.2
Vehicle Noise:	**66.2**	**57.7**	**53.7**	**49.9**	**58.4**	**58.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	88
65 dBA	28
70 dBA	9
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	Between Chateau and Meridian		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	9635
Peak Hour Traffic:	**963.5**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

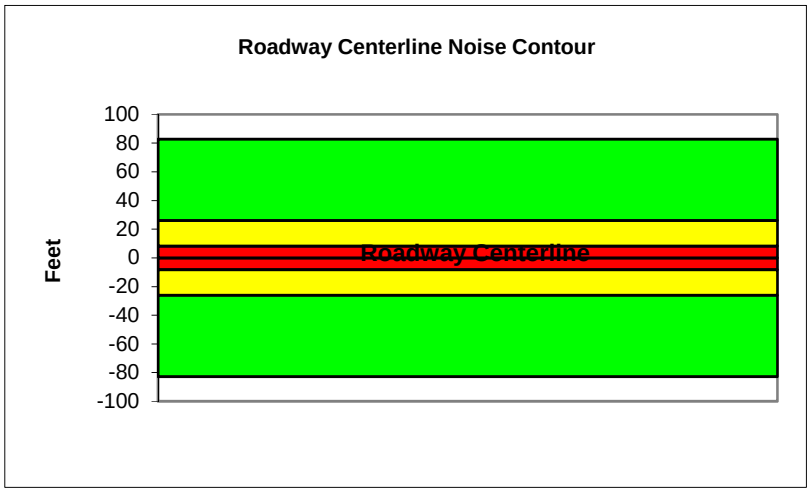
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.4	54.2	52.4	46.4	55.0	55.6
Medium Trucks:	57.1	49.0	42.6	41.1	49.6	49.8
Heavy Trucks:	63.2	51.3	42.3	43.5	53.9	54.0
Vehicle Noise:	**65.9**	**57.5**	**53.4**	**49.6**	**58.1**	**58.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	83
65 dBA	26
70 dBA	8
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	South of Project Driveway		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	5968
Peak Hour Traffic:	**596.8**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

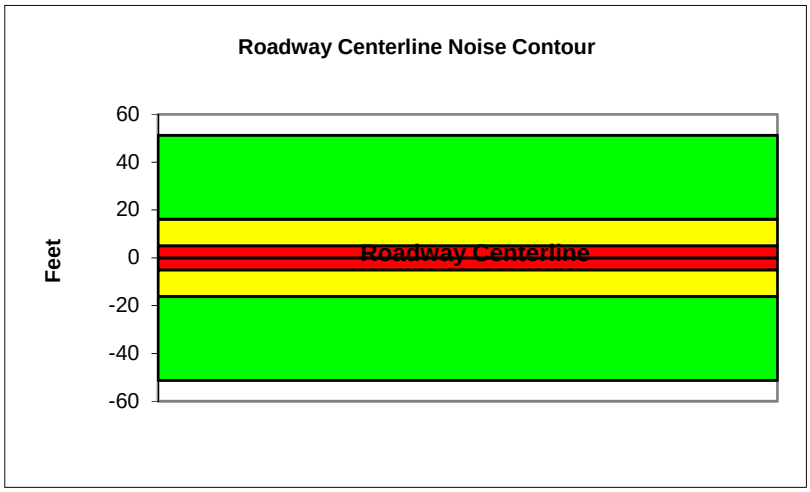
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.4	52.1	50.4	44.3	52.9	53.5
Medium Trucks:	55.0	46.9	40.6	39.0	47.5	47.7
Heavy Trucks:	61.2	49.2	40.2	41.4	51.8	51.9
Vehicle Noise:	**63.8**	**55.4**	**51.4**	**47.5**	**56.1**	**56.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	51
65 dBA	16
70 dBA	5
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Meridian Boulevard		
Road Segment:	West of Old Mammoth Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16239
Peak Hour Traffic:	**1623.9**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

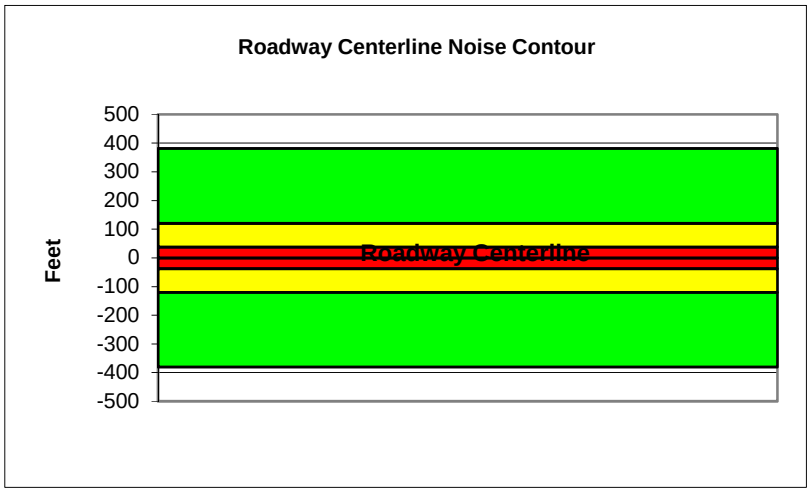
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.6	62.4	60.6	54.5	63.2	63.8
Medium Trucks:	62.5	54.5	48.1	46.5	55.0	55.2
Heavy Trucks:	67.4	55.5	46.4	47.6	57.3	57.5
Vehicle Noise:	**69.8**	**64.0**	**61.0**	**56.1**	**64.7**	**65.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	381
65 dBA	120
70 dBA	38
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Meridian Boulevard		
Road Segment:	East of Old Mammoth Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	14649
Peak Hour Traffic:	**1464.9**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

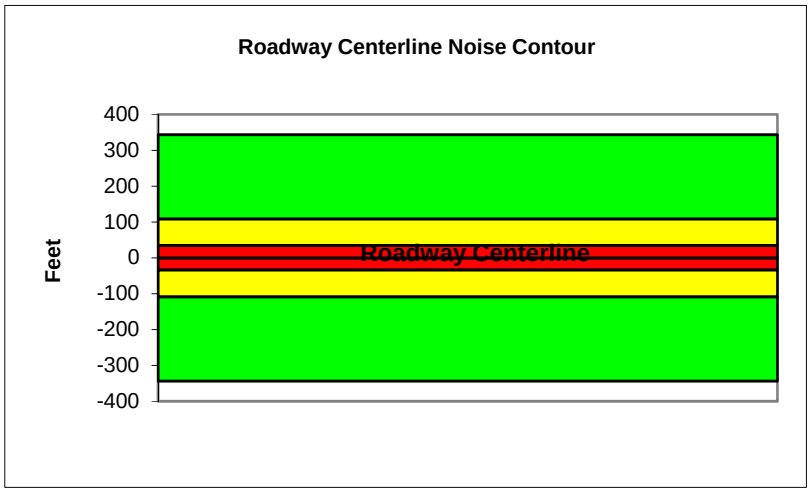
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.1	61.9	60.1	54.1	62.7	63.3
Medium Trucks:	62.1	54.0	47.6	46.1	54.6	54.8
Heavy Trucks:	66.9	55.0	46.0	47.2	56.9	57.0
Vehicle Noise:	**69.3**	**63.5**	**60.6**	**55.6**	**64.2**	**64.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	343
65 dBA	109
70 dBA	34
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Chateau Road		
Road Segment:	West of Old Mammoth Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	1707
Peak Hour Traffic:	**170.7**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

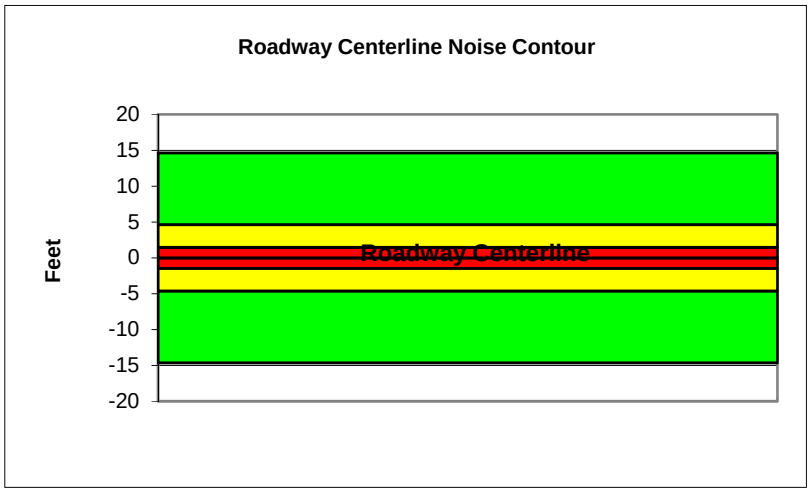
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	38.1	46.9	45.1	39.0	47.7	48.3
Medium Trucks:	49.8	41.7	35.3	33.8	42.2	42.5
Heavy Trucks:	55.9	44.0	34.9	36.2	46.5	46.7
Vehicle Noise:	**58.6**	**50.2**	**46.1**	**42.3**	**50.8**	**51.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	15
65 dBA	5
70 dBA	1
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	North of Meridian Blvd		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	11713
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**1171.3**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	25
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	36
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

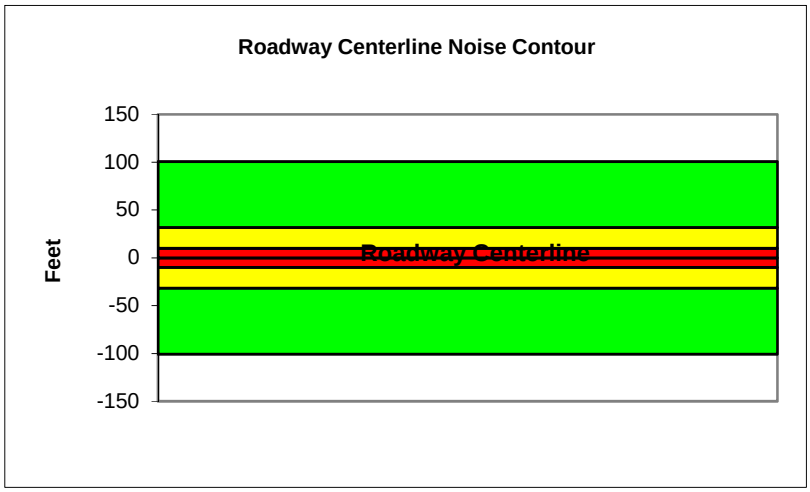
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.3	55.1	53.3	47.2	55.9	56.5
Medium Trucks:	57.9	49.9	43.5	41.9	50.4	50.6
Heavy Trucks:	64.1	52.2	43.1	44.3	54.7	54.8
Vehicle Noise:	**66.8**	**58.3**	**54.3**	**50.5**	**59.0**	**59.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	101
65 dBA	32
70 dBA	10
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	Between Chateau and Meridian		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	11395
Peak Hour Traffic:	**1139.5**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

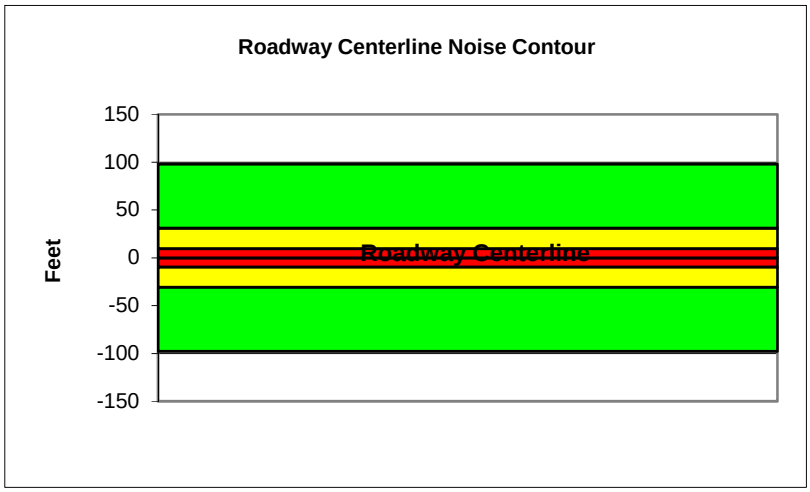
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.2	55.0	53.2	47.1	55.7	56.3
Medium Trucks:	57.8	49.8	43.4	41.8	50.3	50.5
Heavy Trucks:	64.0	52.0	43.0	44.2	54.6	54.7
Vehicle Noise:	**66.6**	**58.2**	**54.2**	**50.3**	**58.9**	**59.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	98
65 dBA	31
70 dBA	10
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	South of Project Driveway		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	8575
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**857.5**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	25
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	36
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

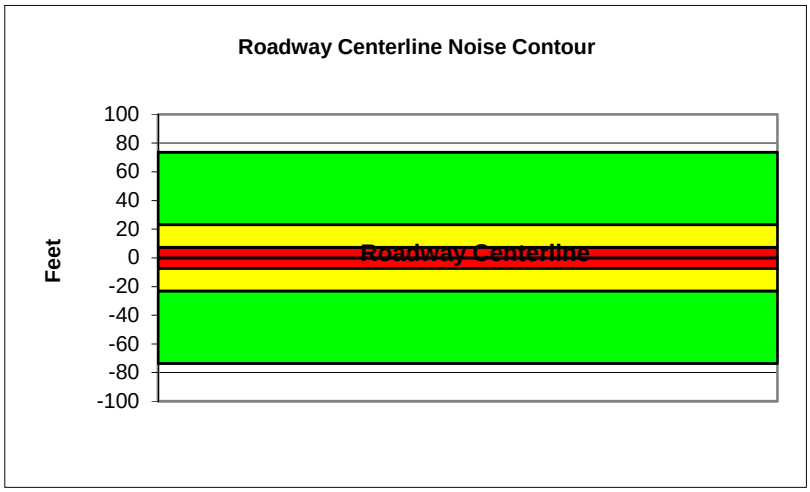
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.9	53.7	51.9	45.8	54.5	55.1
Medium Trucks:	56.6	48.5	42.1	40.6	49.1	49.3
Heavy Trucks:	62.7	50.8	41.7	43.0	53.4	53.5
Vehicle Noise:	**65.4**	**57.0**	**52.9**	**49.1**	**57.6**	**58.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	74
65 dBA	23
70 dBA	7
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Meridian Boulevard		
Road Segment:	West of Old Mammoth Road		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	17119
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**1711.9**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	40
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	36
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

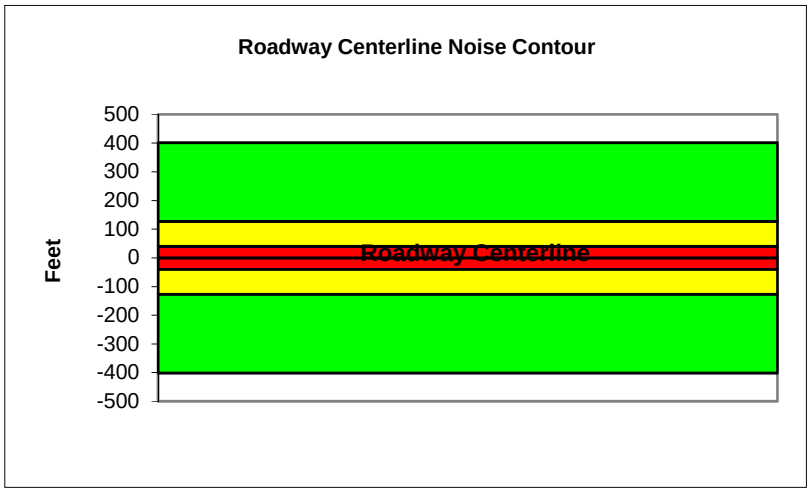
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.8	62.6	60.8	54.7	63.4	64.0
Medium Trucks:	62.8	54.7	48.3	46.8	55.2	55.5
Heavy Trucks:	67.6	55.7	46.6	47.8	57.6	57.7
Vehicle Noise:	**70.0**	**64.2**	**61.3**	**56.3**	**64.9**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	402
65 dBA	127
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Meridian Boulevard		
Road Segment:	East of Old Mammoth Road		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	15423
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**1542.3**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	40
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	36
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

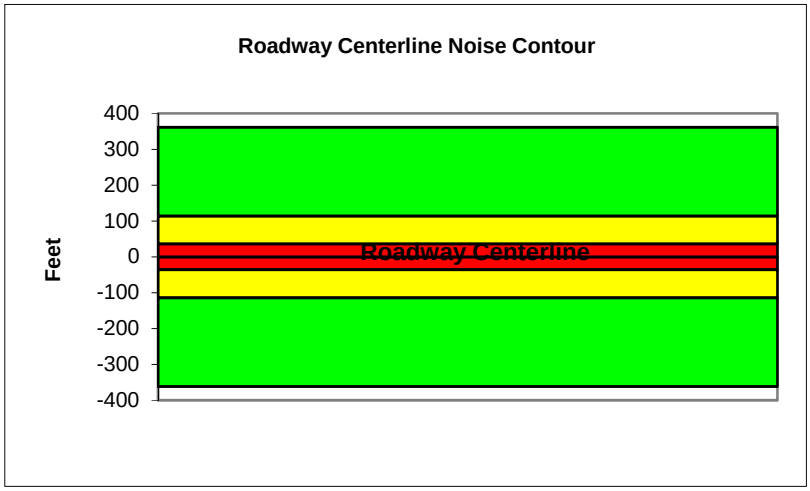
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.4	62.1	60.4	54.3	62.9	63.5
Medium Trucks:	62.3	54.3	47.9	46.3	54.8	55.0
Heavy Trucks:	67.2	55.2	46.2	47.4	57.1	57.2
Vehicle Noise:	**69.5**	**63.7**	**60.8**	**55.9**	**64.4**	**64.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	361
65 dBA	114
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Chateau Road		
Road Segment:	West of Old Mammoth Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2226
Peak Hour Traffic:	**222.6**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

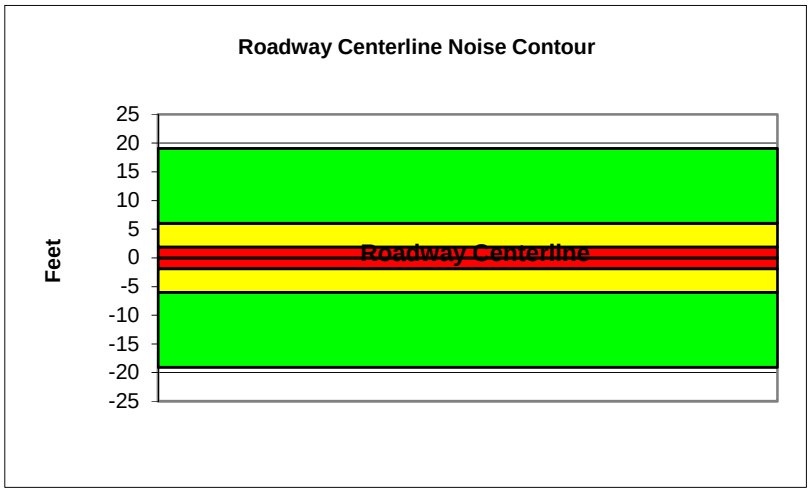
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	39.3	48.1	46.3	40.2	48.8	49.4
Medium Trucks:	50.9	42.9	36.5	34.9	43.4	43.6
Heavy Trucks:	57.1	45.1	36.1	37.3	47.7	47.8
Vehicle Noise:	**59.7**	**51.3**	**47.3**	**43.4**	**52.0**	**52.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	19
65 dBA	6
70 dBA	2
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future Plus Project
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	North of Meridian Blvd		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	11776
Peak Hour Traffic:	**1177.6**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

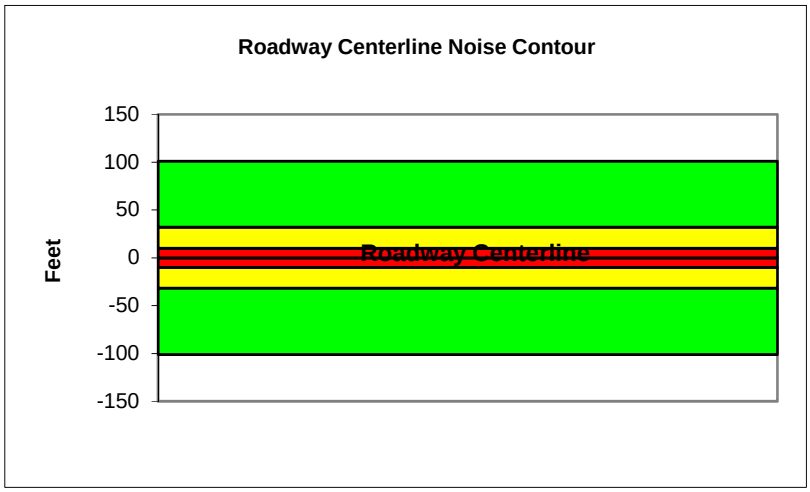
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.3	55.1	53.3	47.2	55.9	56.5
Medium Trucks:	58.0	49.9	43.5	41.9	50.4	50.7
Heavy Trucks:	64.1	52.2	43.1	44.3	54.7	54.9
Vehicle Noise:	**66.8**	**58.3**	**54.3**	**50.5**	**59.0**	**59.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	101
65 dBA	32
70 dBA	10
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future Plus Project
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	Between Chateau and Meridian		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	11403
Peak Hour Traffic:	**1140.3**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

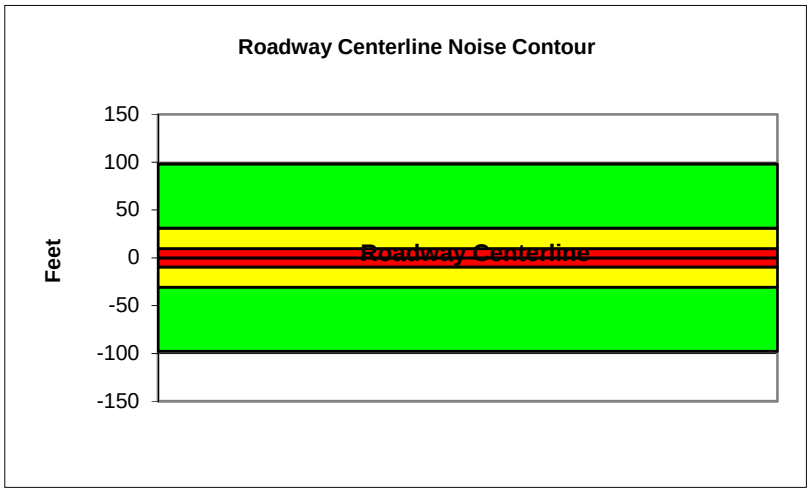
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.2	55.0	53.2	47.1	55.7	56.3
Medium Trucks:	57.8	49.8	43.4	41.8	50.3	50.5
Heavy Trucks:	64.0	52.0	43.0	44.2	54.6	54.7
Vehicle Noise:	**66.6**	**58.2**	**54.2**	**50.3**	**58.9**	**59.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	98
65 dBA	31
70 dBA	10
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future Plus Project
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Old Mammoth Road		
Road Segment:	South of Project Driveway		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8603
Peak Hour Traffic:	**860.3**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

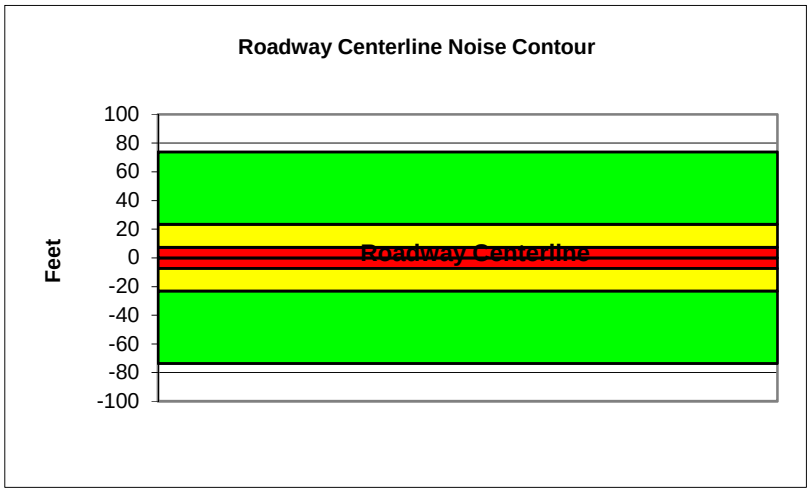
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.0	53.7	51.9	45.9	54.5	55.1
Medium Trucks:	56.6	48.5	42.2	40.6	49.1	49.3
Heavy Trucks:	62.8	50.8	41.8	43.0	53.4	53.5
Vehicle Noise:	**65.4**	**57.0**	**52.9**	**49.1**	**57.6**	**58.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	74
65 dBA	23
70 dBA	7
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future Plus Project
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Meridian Boulevard		
Road Segment:	West of Old Mammoth Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	17216
Peak Hour Traffic:	**1721.6**
Vehicle Speed:	40
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

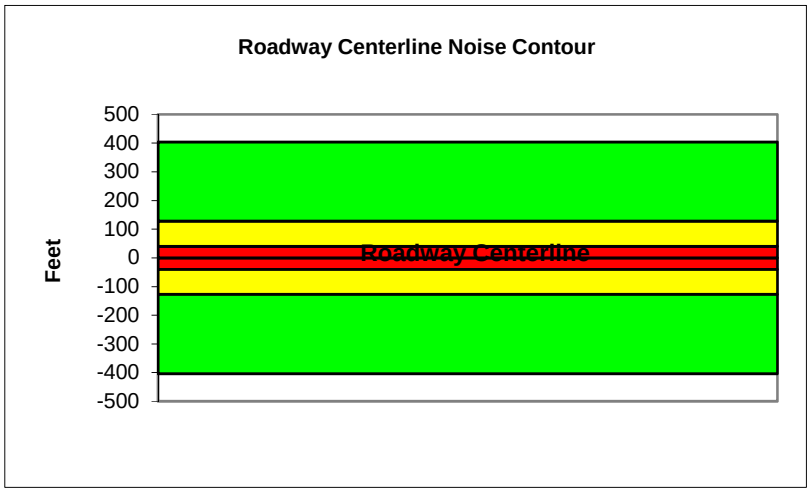
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.8	62.6	60.8	54.8	63.4	64.0
Medium Trucks:	62.8	54.7	48.3	46.8	55.3	55.5
Heavy Trucks:	67.6	55.7	46.7	47.9	57.6	57.7
Vehicle Noise:	**70.0**	**64.2**	**61.3**	**56.3**	**64.9**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	403
65 dBA	128
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future Plus Project
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Meridian Boulevard		
Road Segment:	East of Old Mammoth Road		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	15429
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**1542.9**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	40
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	36
Barrier Far lane CL Dist:	**0**	**NOISE INPUTS**	
Pad Elevation:	**0.5**	Site conditions **HARD SITE**	
Road Elevation:	**0**	**FLEET MIX**	
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

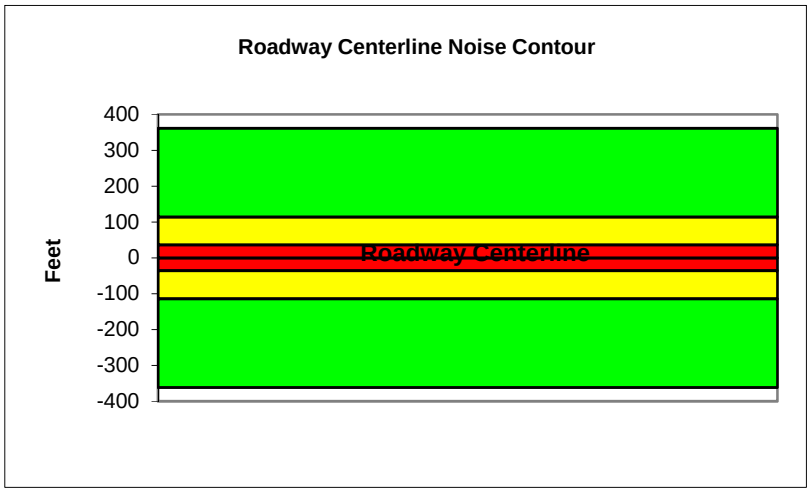
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.4	62.1	60.4	54.3	62.9	63.5
Medium Trucks:	62.3	54.3	47.9	46.3	54.8	55.0
Heavy Trucks:	67.2	55.2	46.2	47.4	57.1	57.2
Vehicle Noise:	**69.5**	**63.7**	**60.8**	**55.9**	**64.4**	**64.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	361
65 dBA	114
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Mammoth Multi-Use Facilities	Scenario:	Future Plus Project
Analyst:	Achilles Malisos	Job #:	151373
Roadway:	Chateau Road		
Road Segment:	West of Old Mammoth Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2234
Peak Hour Traffic:	**223.4**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

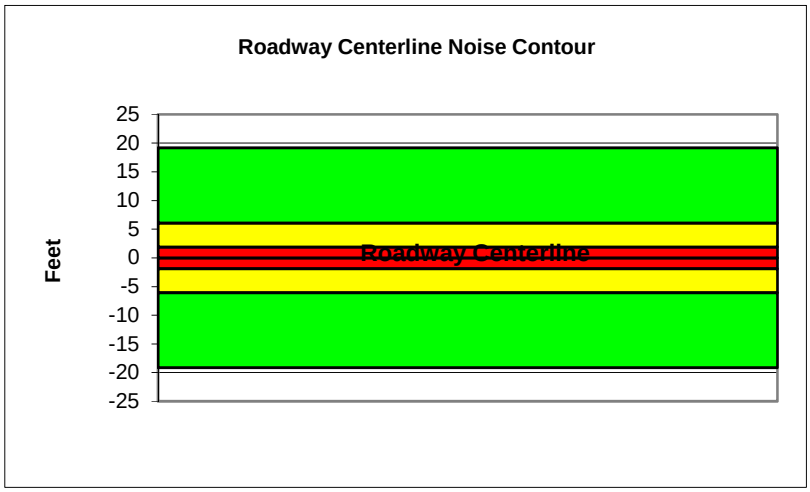
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	39.3	48.1	46.3	40.2	48.9	49.5
Medium Trucks:	50.9	42.9	36.5	34.9	43.4	43.6
Heavy Trucks:	57.1	45.2	36.1	37.3	47.7	47.8
Vehicle Noise:	**59.8**	**51.3**	**47.3**	**43.5**	**52.0**	**52.4**

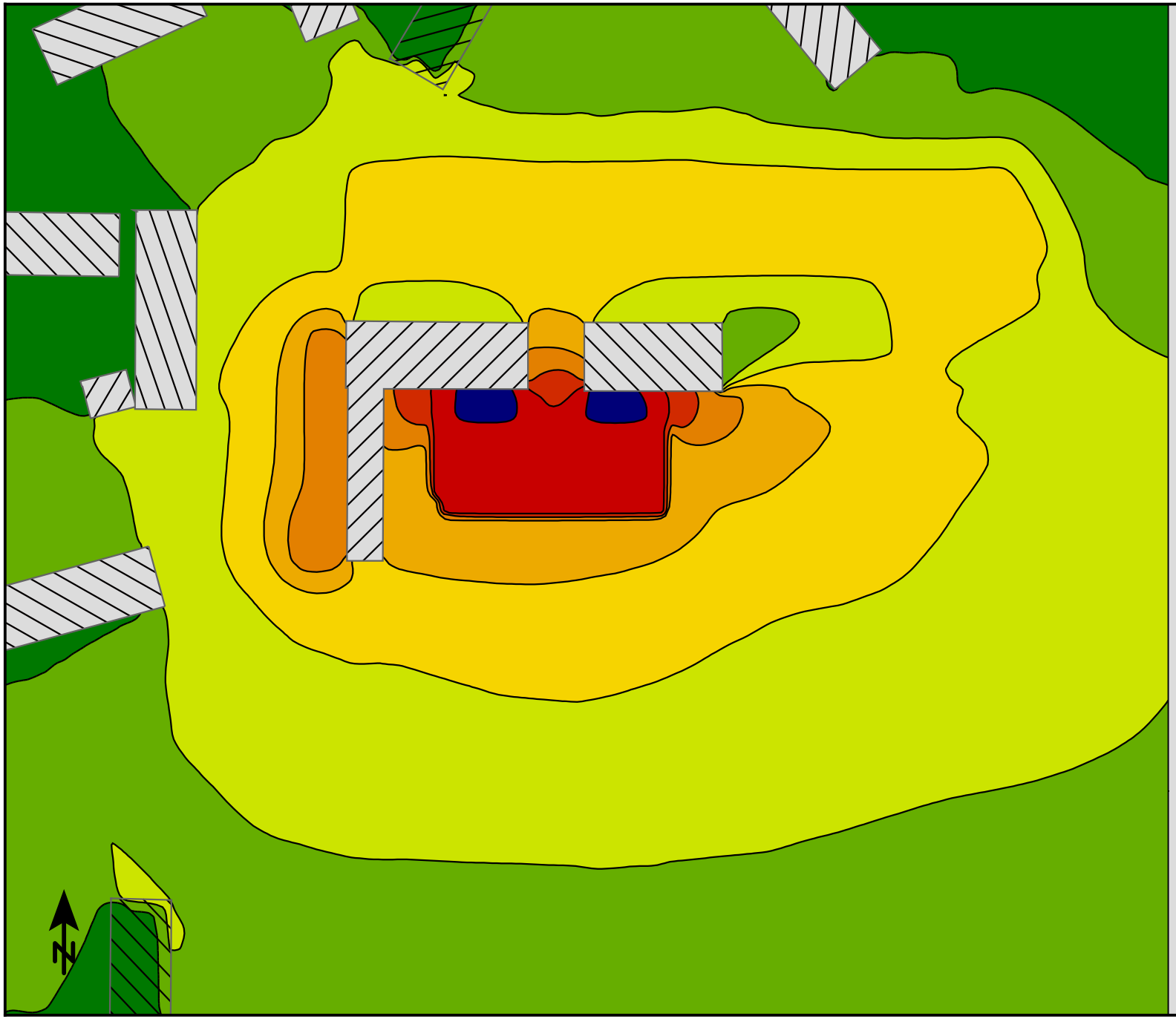
MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	19
65 dBA	6
70 dBA	2
Mitigated	
60 dBA	
65 dBA	
70 dBA	





Signs and symbols

Levels in dBA

	<= 40
	40 - 45
	45 - 50
	50 - 55
	55 - 60
	60 - 65
	65 - 70
	70 - 75
	> 75

0 5 10 20 30 40 m

11.7 Drainage Study

Mammoth Community and Multi-Use Facility
Mammoth Lakes, California

Preliminary Drainage Study

Project 999.3

August 2016

Prepared for:
Town of Mammoth Lakes
P.O. Box 1609
Mammoth Lakes, CA 93546

Prepared by:
Triad/Holmes Associates
P.O. Box 1570
549 Old Mammoth Road, Suite 202
Mammoth Lakes, CA 93546
760.934.7588 office
760.934.5619 fax

August 12, 2016

Thomas A. Platz, P.E. C41039 — Date

Table of Contents

Appendix

- The Town of Mammoth Lakes 2005 Storm Drain Master Plan Update, 2005
- Design Manual, Mammoth Lakes Storm Drainage and Erosion Control, Prepared for Mono County Public Works Department, July 1984, Brown and Caldwell and Triad Engineering
- Water Quality Control Plan for the Lahontan Region, North and South Basins, prepared by the State of California, Regional Water Quality Control Board, Lahontan Region

1. Project

This drainage report addresses the hydrologic impacts of the proposed Mammoth Community Multi-Use Facility on the existing conditions at Mammoth Creek Park. The site is located on the west side of Old Mammoth Road between Chateau Road and Mammoth Creek Road in the Town of Mammoth Lakes, California. For the project vicinity see Figures 1 below:

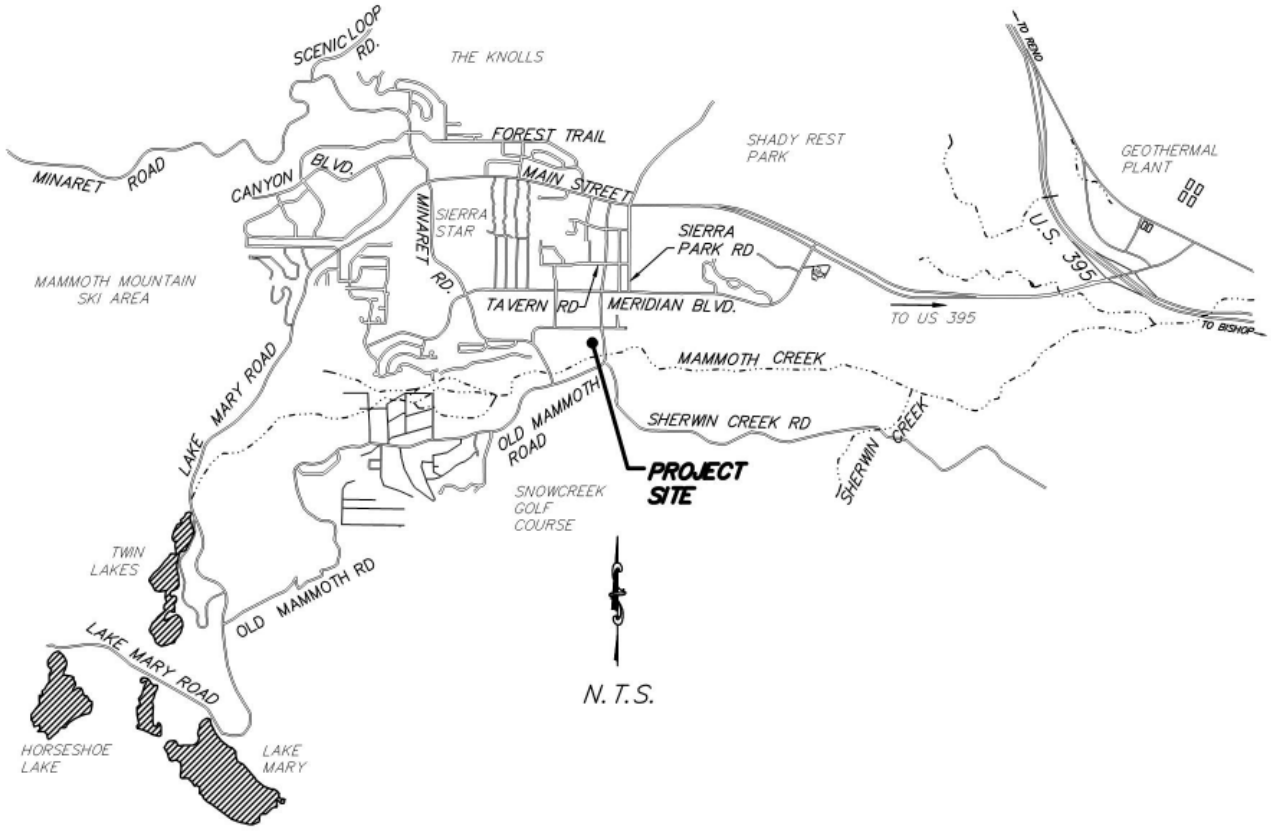


Figure 1 – Site Location

The proposed project includes the relocation of the existing ice-rink facility from the Mammoth Unified School District site near the library and the construction of a new Community Center at the Mammoth Creek Park site. The current playground and bike trail access will remain unchanged. The project proposes to construct Multi-Use Facility with covered 30,000 sf ice rink, recreation, and event area. The new Community Center will include a 13,000 sf building with 2 large conference rooms, an office, 3 small multipurpose rooms, restrooms and locker rooms. The area to the west of the propose

Community Multi-Use Facility will be used as an active Outdoor Recreation Area. The existing parking lot will be extended to accommodate the new facilities.

The total project site, including the existing facilities that will not be disturbed, is approximately 6.4 acres. Within the property, the project area designated to the new facilities is approximately 3.4 acres.

2. Objective

The objective of this study is to determine the expected hydrologic runoff quantities, retention requirements, and appropriate drainage facilities for the proposed Mammoth Community and Multi-Use Facility.

3. Stormwater Management Requirements

Runoff rate calculations are based on the Town of Mammoth Lakes 2005 Storm Drain Master Plan Update (Master Plan)[1]. These calculations are included in Appendix B.

Offsite drainage must be conveyed thought the site to outlet at the pre-development location, unless intercepted by a stormdrain capable of conveying the flows.

Stormwater treatment and retention facilities are designed in accordance with Section 12.08 of the Town Municipal and the Stormwater Master Plan 2015[4].

Town of Mammoth Lakes requires that all stormwater existing the parking areas be treated using an oil/water separator prior to entering retention facilities.

4. Project Background and Observations

The site is located at the existing Mammoth Creek Park. The existing facilities include a playground, AC parking lot, recreation areas with picnic tables, and a restroom. The site is bounded by Old Mammoth Road to the east, residential developments to the north and west, and Mammoth Creek to the south.

The subject site slopes gently from west to east at a grade rate of 2.5%. Ground surface elevations range from approximately 7860' MSL in the northwest corner of the site to approximately 7847' MSL in the northeast. Soils are granular, typical of SCS Type "B" based on Figure 1-7 in the Town of Mammoth Lakes Design Manual[2]. The existing drainage from the offsite multi-family developments to the west of the site sheet flows across the property from west to east. All offsite drainage is tributary to Mammoth Creek.

The areas occupied by the playground, grass and rock recreation area, and the existing parking lot will remain untouched, as well as the access to Mammoth Creek. The rest of the project site is undeveloped area covered by sagebrush, grass, and pine trees, which will house the proposed developments. Refer to Figure A, Appendix A for the existing site conditions.

The proposed development will create approximately 84,230 sf of impervious surface, consisting of 48,250 sf of roof area and 35,980 sf of AC pavement areas. Approximately 17,470 sf of pavers or concrete hardscaping will also be installed to create plaza and walkways. The remaining area of the site is to be landscaped or left in a natural state. See Appendix A, Figure B for the plan view of proposed improvements and Table 1 below for area breakdown:

Table 1 – Area Breakdown

Roofs	48,244 sf
AC Pavement (New)	35,977 sf
AC Pavemnet (Exist)	18,142 sf
Pavers	17,474 sf
Disturbed Natural	61,432 sf
Undisturbed Natural	101,145 sf
Total Project Site	282,414 sf

It is important to note that the property lines do not delineate this project's limits. The project boundaries are based on the disturbance area and defined by the gravel road to the south, Old Mammoth Road to the east, property lines to the north and west.

5. Hydrologic and Hydraulic Analysis

Runoff quantity calculations have been prepared using Excel Spreadsheets. Drainage facilities have been preliminary designed using Hydraflow Express Extension for Autodesk AutoCAD, which utilizes Manning's equations. Calculations are included in Appendices B and C.

In this drainage report "on-site" refers to project area within the property designated to the Mammoth Community and Multi-Use facility (3.4 acres). "Off-site" refers to areas directly adjacent to "on-site". Property lines do not define the difference between the two terms. Refer to Figure A, Appendix A for existing conditions and tributary areas' delineation.

5.1 Off-site drainage

There are two offsite tributary areas, labeled Areas B1 and B2, which contribute sheet flows onto the project site from the north and west. There is a concrete valley gutter in the middle of Meadow Lane, directly west of the project site. This gutter has a very small tributary area and carries very minimal stormwater flows. Base on the existing aerial topographic maps and field observations, no concentrated flows enter the site.

Area B1 is 2.5 acres and includes residential developments adjacent to the Mammoth Creek Park to the north and west. During the 20- and 100-year intensity storms, the runoff quantities are 2.9 cfs and 4.8 cfs, respectively. The offsite stormwater will be conveyed along the north property boundary via an earth swale to the existing 12" inlets on the eastern side of the site.

Area B2 is 5.3 acres located west of the project site. This area also includes the residential development with runoff quantities of 3.5 cfs and 10.1 cfs for the storms of 20- and 100-year intensities, respectively. The stormwater from offsite Area B2 will be conveyed along the southern portion of the site to a level spreader where the water will be allowed to continue to sheet flow toward Mammoth Creek as in existing conditions.

Preliminary calculations showing sizing of the swales are shown in Appendix C.

5.2 On-Site Drainage

On-site drainage is labeled as Area A. The existing 20- and 100-year runoffs for the entire project area are 1.9 cfs and 3.5 cfs, respectively. After the proposed improvements, the 20- and 100-year runoff quantities increase to 4.5 cfs and 7.3 cfs. The increase in stormwater runoff will be attenuated by the required retention facilities as discussed in Section 6 below.

On-site drainage improvements will include inlets at low points, stormdrain pipes, and swales as necessary. The stormwater existing the proposed AC parking lot will be directed to an oil/water separator in the northeast corner before allowed to outlet into proposed retention facility. Stormwater runoff collected from building's roof will be directed to a retention facility proposed just southeast of the improvements. On-site stormdrain facilities will be designed during the grading plan preparation.

6. Retention / Infiltration Facilities

To retain and infiltrate the increase in on-site runoff into the ground, a retention basin system has been preliminary proposed, in conformance with the Water Quality Control Plan for the Lahontan Region3, to contain a 20 year intensity storm for 1 hour, which is assumed to be 1 inch (0.83 feet) * Area (square feet) * C (infiltration coefficient).

Two retention basins (Basin 1 and 2) are proposed for the site, as shown on Figure B, Appendix A. Preliminary, the required storage volume is 3,000 cf and 4,100 cf for Basins 1 and 2, respectively. There is enough on-site area to satisfy these storage requirements.

It should be noted that these basins present a preliminary drainage solution and final design of retention / infiltration facilities will be based on input from the Town of Mammoth Lakes and may include dry wells, alternative locations, etc.

7. Conclusion

This Preliminary Drainage Study demonstrates the technical feasibility of providing adequate offsite and onsite water conveyance, water treatment, and retention.

Drainage facilities have been preliminarily designed to handle the required flows. The criteria followed during the design process addressed issues such as safety, erosion protection and water quality.

The area of disturbance for this project is greater than 1 acre, so this project is subject to the requirements of the National Pollution Discharge Elimination System (NPDES) requirements for construction projects, General Permit number CAS000002, enforced by the State Water Quality Control Board – Lahontan Region. The Owner must submit a Notice of Intent to associate this project with the General Permit, then prepare, have on site and conform to a Storm Water Pollution Prevention Plan (SWPPP) during construction. Though the requirements of permits are not anticipated, work shall conform to conditions of the Army Corp of Engineers, Lahontan Regional Quality Control Board, and State of California Fish and Game.

Any work done in this area shall conform to Federal, State, and local requirements.

Both the on-site and off-site storm drainage facilities must be maintained to continue to work as designed. Particular items requiring maintenance include, but are not limited to, cleaning of the grates, removal of foreign materials from storm drainage pipes, maintenance as necessary to outlet facilities, and repairs as necessary to damaged facilities. Special attention should be paid to any storm drain pipe with the slope of less than 0.5%. This storm drain will required more frequent maintenance due to its low incline. Additionally, snow removal must be performed in a way so as not to restrict drainage collection in gutters, inlets, and flow paths.

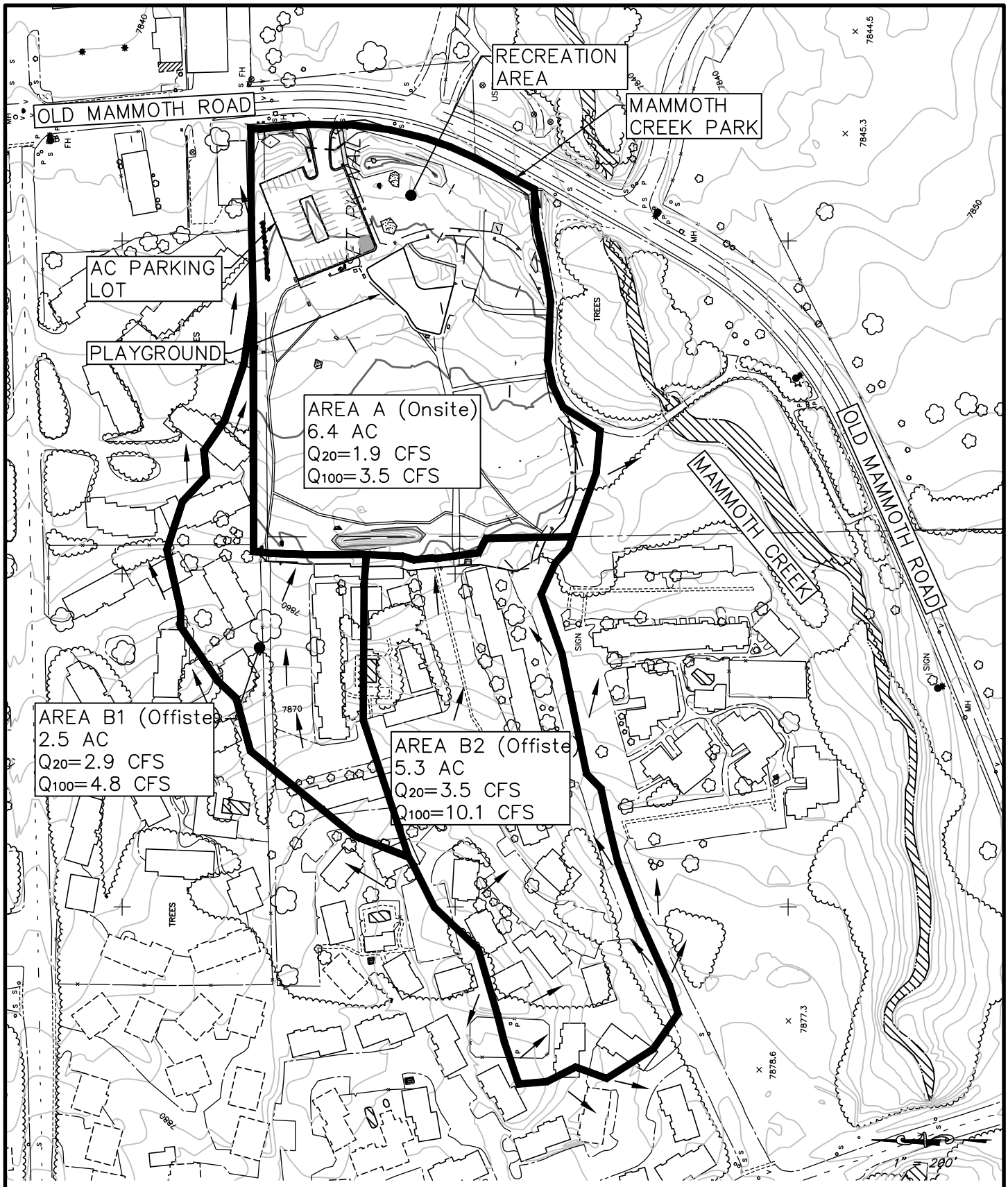
[1]The Town of Mammoth Lakes 2005 Storm Drain Master Update, May 2005, Boyle Engineering Corporation.

[2]Design Manual, Mammoth Lakes Storm Drainage and Erosion Control, Prepared for Mono County Public Works Department, July 1984, Brown and Caldwell and Triad Engineering.

[3]Water Quality Control Plan for the Lahontan Region, North and South Basins, prepared by the State of California, Regional Water Quality Control Board, Lahontan Region.

[4]The Town of Mammoth Lakes Stormwater Master Plan 2015, prepared by NCE.

APPENDIX A – Figures



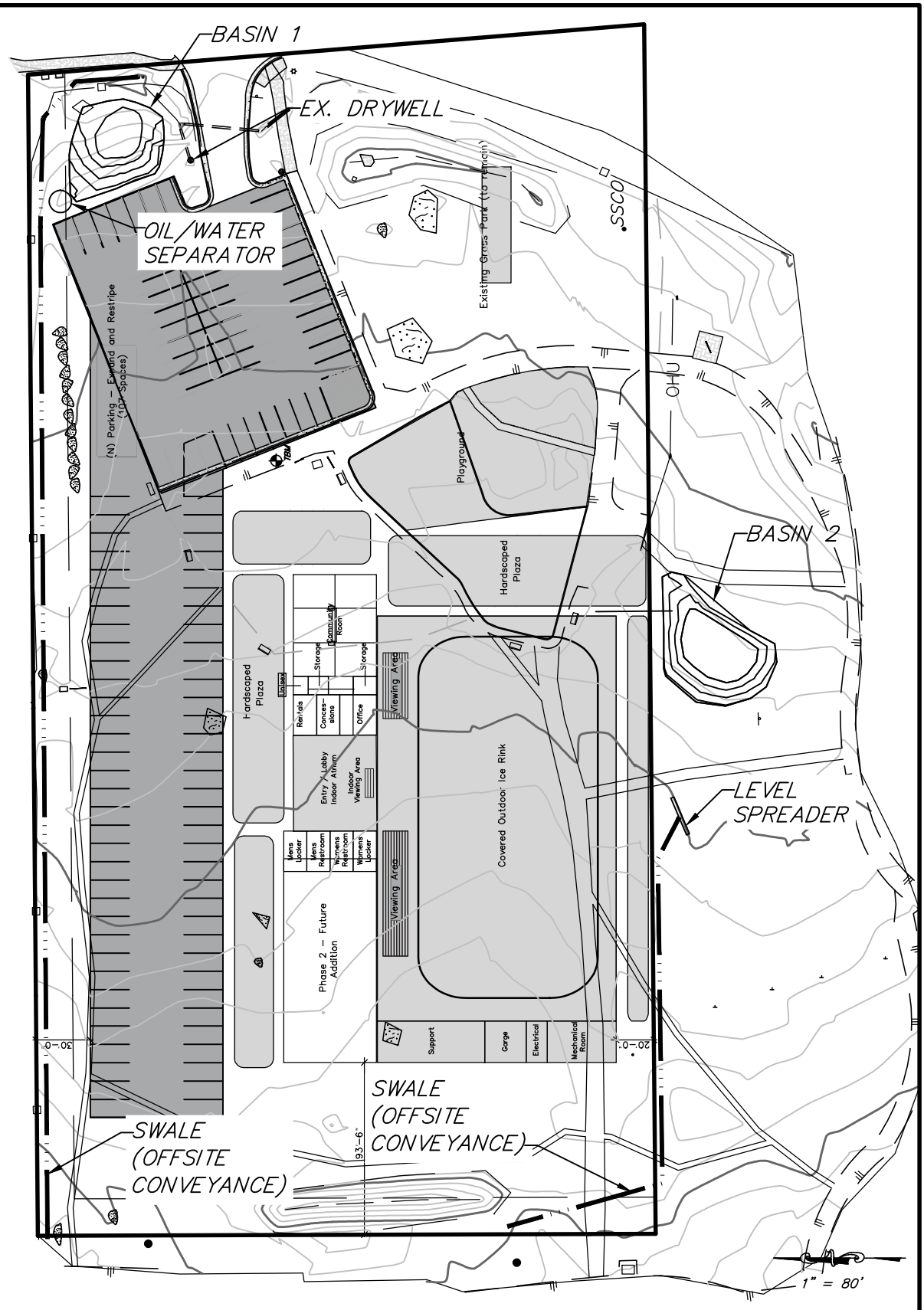
DATE:
08/10/2016

MAMMOTH COMMUNITY AND MULTI-USE FACILITY

CONCEPTUAL DRAINAGE
FIGURE A – EXISTING CONDITIONS

thc triad/holmes assoc civil engineering land surveying

K:\01 Mammoth\999.3\Acad\Drainage\999.3 Drainage CAD 2014.dwg Aug 12 2016 - 11:03am mgaglowsky



DATE:
08/05/2016

MAMMOTH COMMUNITY AND MULTI-USE FACILITY

CONCEPTUAL DRAINAGE
FIGURE B - PROPOSED CONDITIONS

thc triad/holmes assoc civil engineering land surveying

C:\01 Mammoth\999.3 Ice Rink\Acad\999.3 Drainage CAD 2014.dwg Aug 15,2016 - 3:55pm sroi

APPENDIX B – Hydrologic Calculations

triad/holmes associates
civil engineering
land surveying
mammoth lakes • bishop • redwood city • napa
san luis obispo • lompoc • pleasanton

Town of Mammoth Lakes, 2005 Storm Drain Design Manual, Procedure A

20-YEAR INTENSITY STORM			Existing					Proposed				
Area	**Exceedence Interval for Design (years)**	**Acres**	**% Natural**	**% HD Residential**	**% Commercial**	**Inensity (cfs/acre)**	**Design Q (cfs)**	**% Natural**	**% HD Residential**	**% Commercial**	**Inensity (cfs/acre)**	**Design Q (cfs)**
A (Onsite)	Q20	6.37	93%	0%	7%	0.30	**1.94**	53%	0%	47%	0.70	**4.45**
	Q100					0.54	**3.45**				1.14	**7.26**
B1 (Offiste)	Q20	2.52	0%	100%	0%	1.14	**2.87**					
	Q100					1.90	**4.78**					
B2 (Offiste)	Q20	5.30	0%	100%	0%	0.65	**3.45**					
	Q100					1.90	**10.07**					

Land Use Type		**20-Year**	**100-Year**
Commercial	C	1.22	1.93
High Density Residence	H	1.14	1.90
Natural	N	0.23	0.43
Single Family Residence	S	0.65	1.30

APPENDIX C – Hydraulic Calculations

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Aug 10 2016

Swale Area B1

Triangular

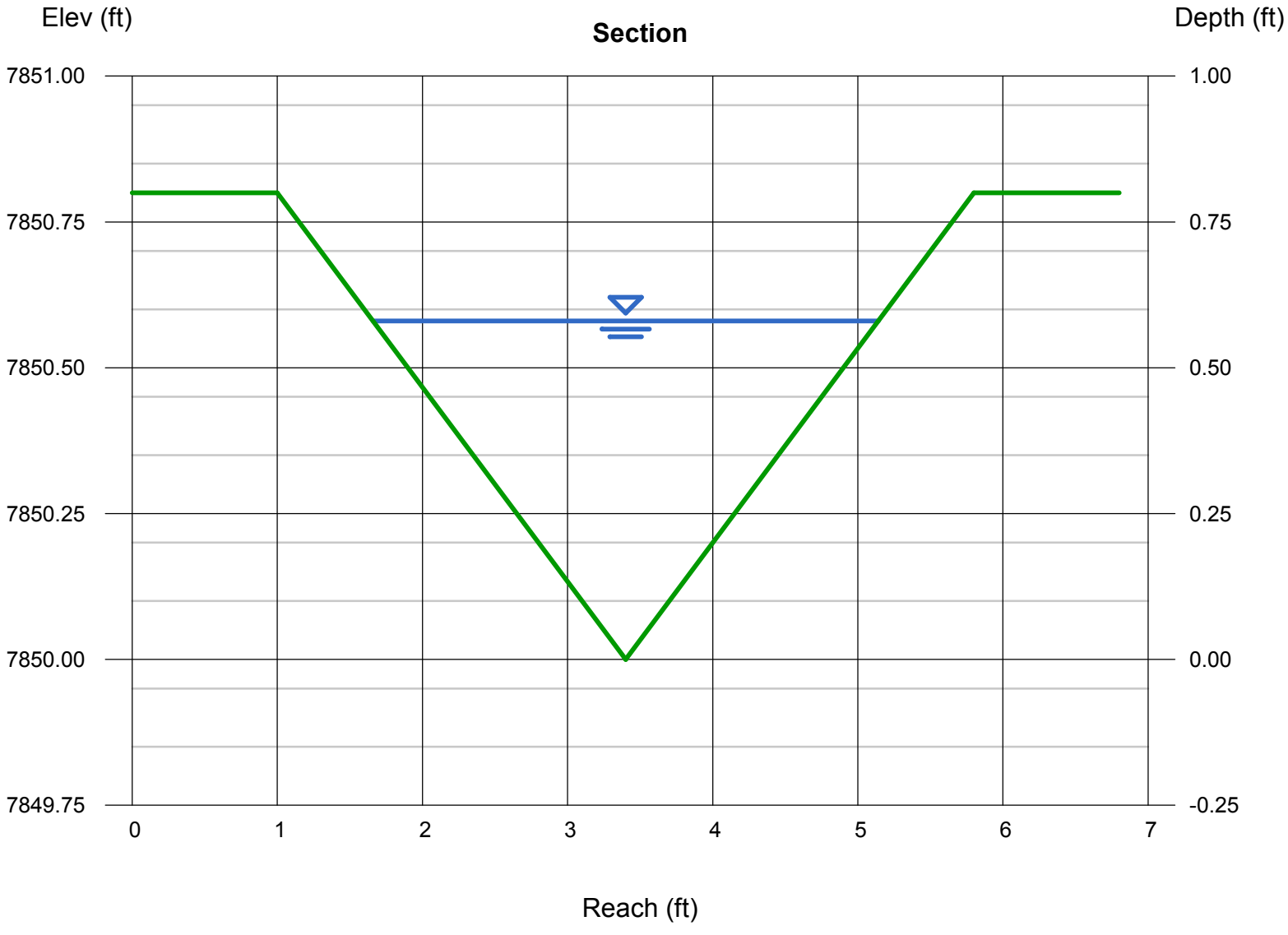
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 0.80
Invert Elev (ft)	= 7850.00
Slope (%)	= 2.70
N-Value	= 0.035

Calculations

Compute by:	Known Q
Known Q (cfs)	= 2.90

Highlighted

Depth (ft)	= 0.58
Q (cfs)	= 2.900
Area (sqft)	= 1.01
Velocity (ft/s)	= 2.87
Wetted Perim (ft)	= 3.67
Crit Depth, Yc (ft)	= 0.57
Top Width (ft)	= 3.48
EGL (ft)	= 0.71



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Wednesday, Aug 10 2016

Swale Area B2

Triangular

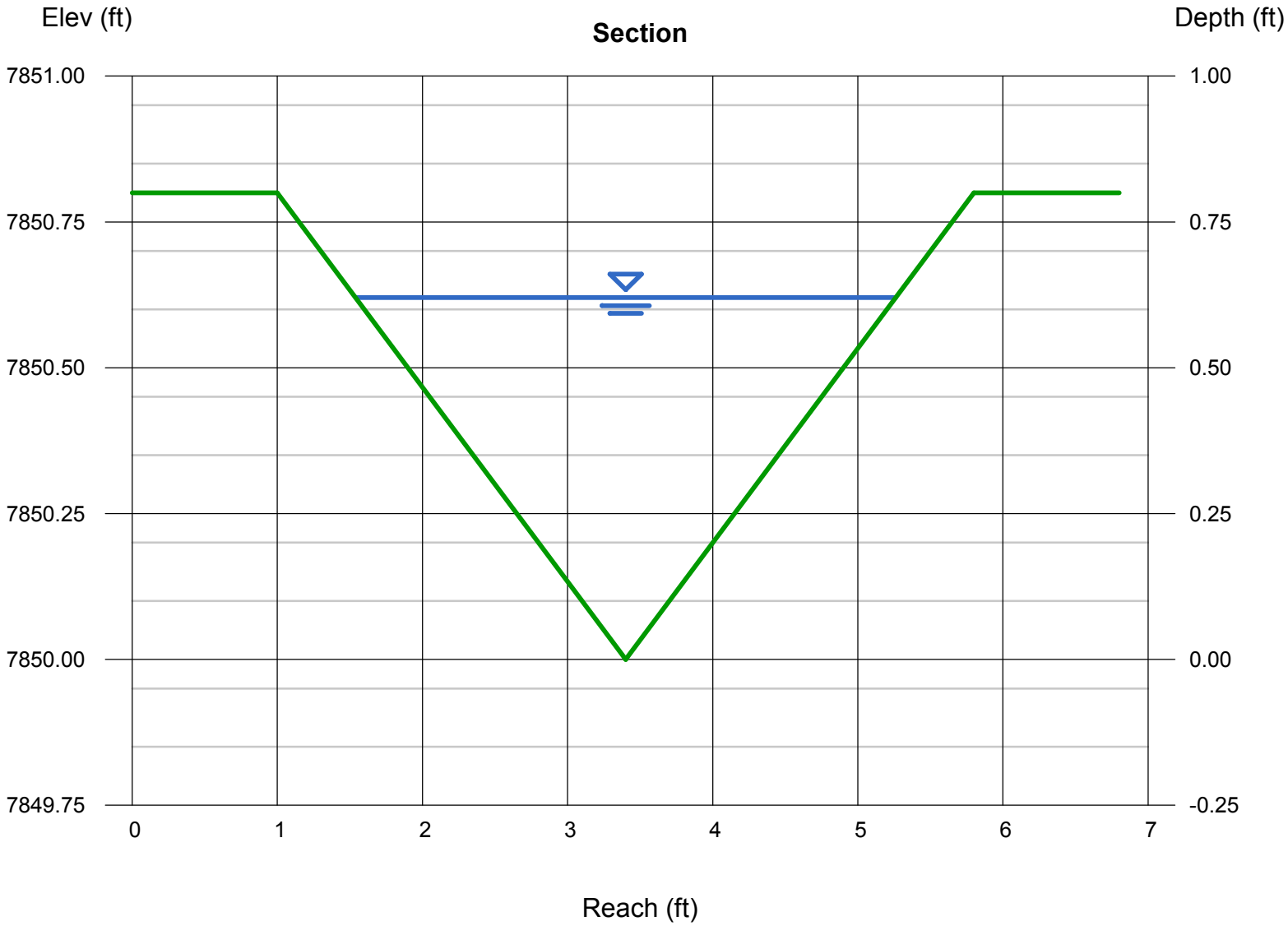
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 0.80
Invert Elev (ft)	= 7850.00
Slope (%)	= 2.70
N-Value	= 0.035

Calculations

Compute by:	Known Q
Known Q (cfs)	= 3.50

Highlighted

Depth (ft)	= 0.62
Q (cfs)	= 3.500
Area (sqft)	= 1.15
Velocity (ft/s)	= 3.04
Wetted Perim (ft)	= 3.92
Crit Depth, Yc (ft)	= 0.62
Top Width (ft)	= 3.72
EGL (ft)	= 0.76



APPENDIX D – Retention/ Infiltration Calculations

Tributary Areas

Roofs	48,244 sf
AC Pavement (New)	35,977 sf
AC Pavemnet (Exist)	18,142 sf
Pavers	17,474 sf
Disturbed Natural	61,432 sf
Undisturbed Natural	101,145 sf
Total Project Site	282,414 sf

Storage Volume Calculation

Input:

Rainfall Quantity	1 in	=	0.083 ft
Percolation Rate	0.0 in/hr	=	0.000 ft/hr

Tributary Area

	Area A1			Area A2	
	Area		Runoff Coefficient	Area	
Roof Area	0,000 sf	0%	0.95	48,244 sf	85%
AC Pavement	35,977 sf	80%	0.90	0,000 sf	0%
Pavers	9,092 sf	20%	0.40	8,382 sf	15%
Total Area	45,069 sf		**0.80**	56,626 sf	

Total Impervious Area 35,977 sf 48,244 sf 84,221 sf
17,474 sf

Average Volume = Total Area * Average Runoff Coefficient * Rainfall

Storage Sizing Calculations

	Volume Required	Depth Retention	Area Provided	Volume Provided
Basin 1	**3,001 cf**	3.0 ft	2,190 sf	**3,129 cf**
Basin 2	**4,099 cf**	1.5 ft	2,865 sf	**4,406 cf**

APPENDIX E – References

B. Procedure A Development

Two types of rare event precipitation-runoff conditions pertain to the meteorological characteristics of the Town and need to be considered jointly. They are subject to two physically distinct events: a rainfall-only condition and the rainfall-on-snow condition, referred to as the summer and winter conditions, respectively. The idea that one should consider each condition separately and then choose the most extreme result is a sound one and will be adopted in this study as well.

The methodology used to determine peak flows is based on the Rational Formula

$$Q = CiA$$

Where:

Q	=	the discharge measured in cfs
C	=	the runoff coefficient, having no physical dimensions
i	=	the rainfall intensity measured in inches per hour
A	=	the area of the watershed basin measured in acres

The above formula is simply a version of the "continuity equation" in the study of hydraulics. Any consistent set of units may be chosen, however the customary units for Q, i, and A are cubic feet per second (cfs), inches per hour (in/hr), and acres (ac) respectively. For this particular choice of units, the product CiA is to be multiplied by a small correction factor of 1.008, which is often neglected in view of the probabilistic nature of hydrologic calculations mentioned above.

It was observed from the 1984 study that flows within the local storm drains experience little attenuation. In other words, individual hydrographs from individual storm drains have nearly coincidental (in time) peaks when a flow confluence occurs. This finding from the 1984 study helps to provide a simple way to determine peak discharge values. Additionally, the assumption of no attenuation is a conservative one.

While it is true that any point on a stream has a watershed area associated with it, one should not compare watersheds having widely ranging area values. Former procedures specified in the 1984 study allow for areas within the town to have an area anywhere between 0 and 1,600 acres, which is too much of a variation. Problems with

comparing a 10 acre subarea with a 1000 acre subarea are obvious in that calculated times of concentrations (t_c) would be vastly different. Hence for this updated study a standard of 40-80 acres is taken as the range of watershed size used to apply cfs/acre peak values[3]. In practice, developers within subareas (if more than one subarea is involved a weighted average should be taken) of this order of magnitude can design systems for their projects using the cfs/acre values that are called out in this study (see **Table 3-1A**).

Another fact that applies to storm drains in the Town is that peak flows within the local storm drain system occur at a time much earlier than offsite flows in major streams. Hence, storm drain design in the Town is mainly independent of offsite drainage and drainage methodology (with the exception of conveyance structures that route large offsite watersheds). For those properties that are affected by large offste watersheds, a reduction factor may be applied, as shown in **Table 3-1B**.

In order to develop a "cfs/acre" approach in lieu of a detailed hydrograph for storm drain flows, a lower bound for cfs/acre value within the Mammoth Basin was first established for comparative purposes. By the term "lower bound", we mean that the estimates made by the following analysis are expected to be less than cfs/acre values that actually apply within the Town for the purpose of pipe design. Such an estimate has some value, since it acts as a safeguard against the use of values that would result in the design of conveyance systems that are inadequate for a given return period.

From the Federal Emergency Management Agency (FEMA) Flood Insurance study [6], it was estimated that the 100-year[4] discharge rate for Mammoth Creek was 640 cubic feet per second (cfs) for a tributary watershed area of 13.12 square miles (8,397 acres) at a stream location taken 650 feet downstream of Old Mammoth Road. Hence for this

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[3] This standard is used in several communities within the State of California, including Los Angeles [5] and Ventura Counties.

[4] A 10-year storm is defined as a storm event that is equaled or exceeded every 10 years on average. Another way to define a 10-year storm is to say that the probability of an event of having a 10-year magnitude or more has a 1/10 chance in a given year. Likewise, a 100-year storm is defined as a storm that is equaled or exceeded every 100 years on average. The 100-year storm can alternatively be defined by saying that the probability of an event of having a 100-year magnitude or more has a 1/100 chance in a given year [7].

watershed, a cfs/acre ratio is equal to 640/8397 ≈ 0.076 cfs/acre for 100-year conditions. This value is clearly low since it includes an extremely large and predominantly natural watershed (consisting of subareas including portions of the Town) subject to the attenuation process. From the same study, it was estimated that the 100-year discharge rate for Mammoth Creek increased from 350 cfs to 610 cfs between Waterford Street upstream and a point 650 feet upstream of Minaret Road downstream. The increase in the watershed area between these two stations is given as 0.49 square miles (314 acres) and lies within the Town. For this watershed from Waterford Street to 650 feet upstream of Minaret Road, the cfs/acre ratio is equal to (610 – 350)/314 ≈ 0.828 cfs/acre for 100-year conditions.

Next, a statistical analysis was made of the cfs/acre data contained in the 1984 study. Not surprisingly, a strong dependence (on cfs/acre rates) was found on the degree of natural land cover. This data was applied to the individual subareas delineated in this study for the purpose of obtaining a reasonable estimate of cfs/acre value for particular land use types, and were adjusted for consistency. These values were conservatively estimated to be those as given in **Table 3-1** below:

Table 3-1A. Applicable cfs/acre Values by Land Use Type

Land Use Type	20-Year	100-Year
Natural	0.23	0.43
Single Family Residence	0.65	1.30
High Density Residence	1.14	1.90
Commercial	1.22	1.93

Table 3-1B. Reduction Factors for Large Basins

Drainage Area (acres)	Reduction Factor
80	1.00
100	0.97
200	0.88
500	0.77
1,000	0.69
2,000	0.63
5,000	0.55
7,744	0.52

The values for the tables above were determined primarily for the purpose of determining the discharge values within the elements of the storm drain system as outlined in Section 5.

C. Procedure B Development

Procedure B is intended for use in larger, natural areas. A flow-frequency analysis approach was adopted, based on the flow data available and the ease with which it could be applied. Sufficient concurrent precipitation and runoff data were not available to develop a hydrograph method with reasonable accuracy.

The flow out of a large, natural basin in the Mammoth Lakes area has two principal components--snowmelt and rain flood flows. In general, flow records indicate that the peak flows in Mammoth Creek at Highway 395 are produced by snowmelt. Extreme rainfall events may produce short-term peaks on an annual hydrograph, which is dominated by flows produced by snowmelt. This situation is typical of major basins on the eastern side of the Sierra Nevada.

The mean daily flow records for Hot Creek at Highway 395 were used to develop the flow-frequency relationships. Snowmelt flows were segregated from rain flood flows by plotting flow-frequency relationships separately for rainy and non-rainy periods.

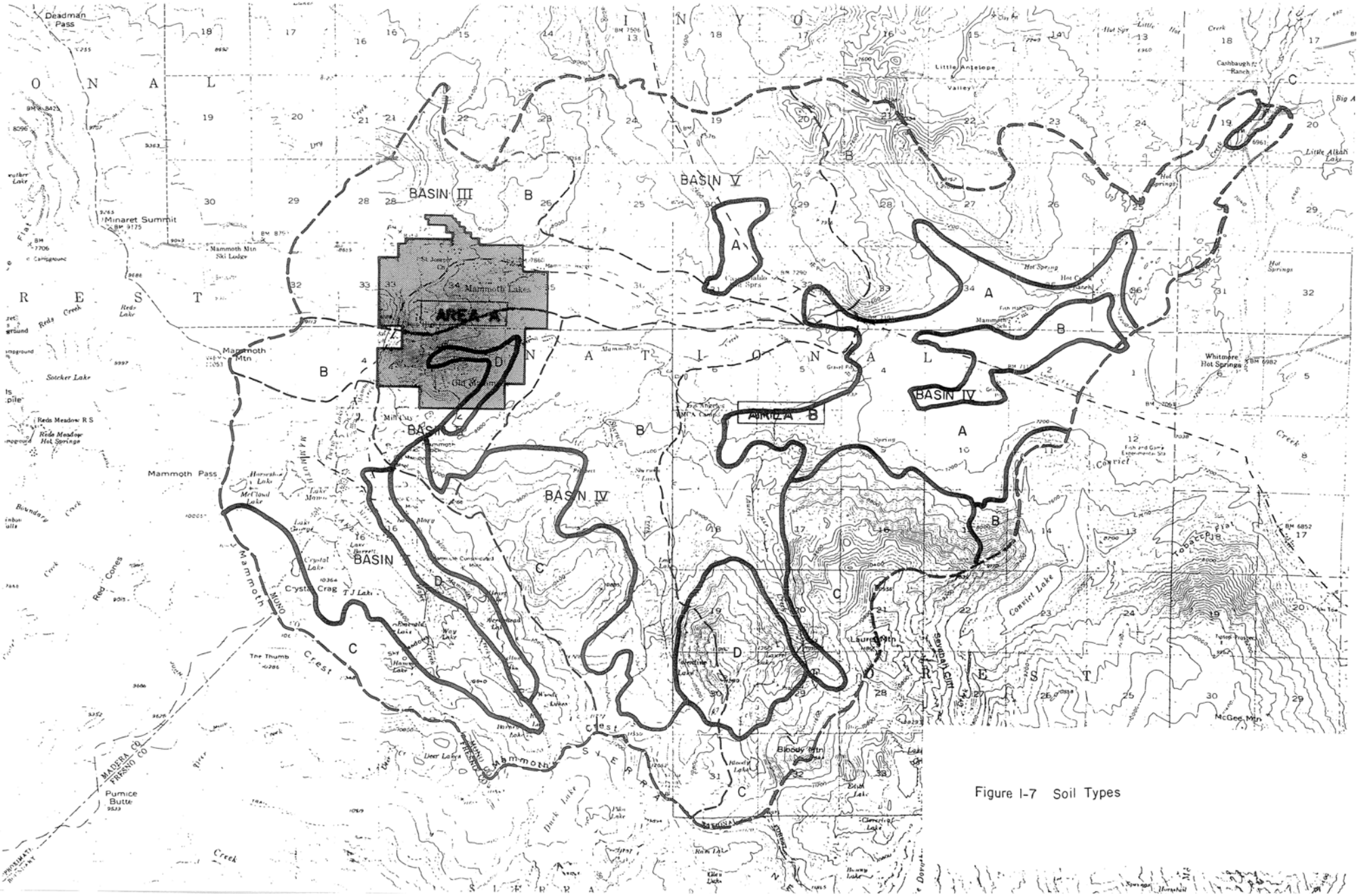

Figure I-7 Soil Types

4.8 LAND DEVELOPMENT

The construction and maintenance of urban and commercial developments can impact water quality in many ways. Construction activities inherently disturb soil and vegetation, often resulting in accelerated erosion and sedimentation. Stormwater runoff from developed areas can also contain petroleum products, nutrients, and other contaminants.

This section contains a discussion of the potential water quality impacts expected to result from land development activities, followed by control measures to reduce or offset water quality impacts from such activities.

Construction Activities and Guidelines

Construction activities often produce erosion by disturbing the natural ground surface through scarifying, grading, and filling. Floodplain and wetland disturbances often reduce the ability of the natural environment to retain sediment and assimilate nutrients. Construction materials such as concrete, paints, petroleum products, and other chemicals can contaminate nearby water bodies. Construction impacts such as these are typically associated with subdivisions, commercial developments, and industrial developments.

Control Measures for Construction Activities

The Regional Board regulates the construction of subdivisions, commercial developments, industrial developments, and roadways based upon the level of threat to water quality. The Regional Board will request a Report of Waste Discharge and consider the issuance of an appropriate permit for any proposed project where water quality concerns are identified in the California Environmental Quality Act (CEQA) review process. Any construction activity whose land disturbance activities exceed five acres must also comply with the statewide general NPDES permit for stormwater discharges (see "Stormwater" section of this Chapter).

The following are guidelines for construction projects regulated by the Regional Board, particularly for projects located in portions of the Region where erosion and stormwater threaten sensitive watersheds. The Regional Board recommends that each county within the Region adopt a grading/erosion control ordinance to require implementation of these same guidelines for all soil disturbing activities:

1. Surplus or waste material should not be placed in drainageways or within the 100-year floodplain of any surface water.

2. All loose piles of soil, silt, clay, sand, debris, or other earthen materials should be protected in a reasonable manner to prevent any discharge to waters of the State.

3. Dewatering should be performed in a manner so as to prevent the discharge of earthen material from the site.

4. All disturbed areas should be stabilized by appropriate soil stabilization measures by October 15th of each year.

5. All work performed during the wet season of each year should be conducted in such a manner that the project can be winterized (all soils stabilized to prevent runoff) within 48 hours if necessary. The wet season typically extends from October 15th through May 1st in the higher elevations of the Lahontan Region. The season may be truncated in the desert areas of the Region.

6. Where possible, existing drainage patterns should not be significantly modified.

7. After completion of a construction project, all surplus or waste earthen material should be removed from the site and deposited in an approved disposal location.

8. Drainage swales disturbed by construction activities should be stabilized by appropriate soil stabilization measures to prevent erosion.

9. All non-construction areas should be protected by fencing or other means to prevent unnecessary disturbance.

10. During construction, temporary protected gravel dikes, protected earthen dikes, or sand bag dikes should be used as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff.

11. Impervious areas should be constructed with infiltration trenches along the downgradient sides to dispose of all runoff greater than background levels of the undisturbed site. Infiltration trenches are not recommended in areas where infiltration poses a risk of ground water contamination.

12. Infiltration trenches or similar protection facilities should be constructed on the downgradient side of all structural drip lines.

13. Revegetated areas should be continually maintained in order to assure adequate growth and root development. Physical erosion control facilities should be placed on a routine maintenance and inspection program to provide continued erosion control integrity.

14. Waste drainage waters in excess of that which can be adequately retained on the property should be collected before such waters have a chance to degrade. Collected water shall be treated, if necessary, before discharge from the property.

15. Where construction activities involve the crossing and/or alteration of a stream channel, such activities should be timed to occur during the period in which stream flow is expected to be lowest for the year.

16. Use of materials other than potable water for dust control (i.e., reclaimed wastewater, chemicals such as magnesium chloride, etc.) is strongly encouraged but must have prior Regional Board approval before its use.

Specific Policy and Guidelines for Mammoth Lakes Area

To control erosion and drainage in the Mammoth Lakes watershed at an elevation above 7,000 feet (Figure 4.8-1), the following policy and guidelines apply:

Policy:

A Report of Waste Discharge is required not less than 90 days before the intended start of construction activities of a **new development** of either (a) six or more dwelling units, or (b) commercial developments involving soil disturbance on one-quarter acre or more.

The Report of Waste Discharge shall contain a description of, and time schedule for implementation, for both the **interim erosion control measures** to be applied during project construction, and **short- and long-term erosion control measures** to be employed after the construction phase of the project. The descriptions shall include appropriate engineering drawings, criteria, and design calculations.

Guidelines:

1. Drainage collection, retention, and infiltration facilities shall be constructed and maintained to prevent transport of the runoff from a 20-year, 1-hour design storm from the project site. A 20-year, 1-hour design storm for the Mammoth Lakes area is equal to 1.0 inch (2.5 cm) of rainfall.

2. Surplus or waste materials shall not be placed in drainageways or within the 100-year flood plain of surface waters.

3. All loose piles of soil, silt, clay, sand, debris, or earthen materials shall be protected in a reasonable manner to prevent any discharge to waters of the State.

4. Dewatering shall be done in a manner so as to prevent the discharge of earthen materials from the site.

5. All disturbed areas shall be stabilized by appropriate soil stabilization measures by October 15 of each year.

6. All work performed between October 15th and May 1st of each year shall be conducted in such a manner that the project can be winterized within 48 hours.

7. Where possible, existing drainage patterns shall not be significantly modified.

8. After completion of a construction project, all surplus or waste earthen material shall be removed from the site and deposited at a legal point of disposal.

9. Drainage swales disturbed by construction activities shall be stabilized by the addition of crushed rock or riprap, as necessary, or other appropriate stabilization methods.

10. All nonconstruction areas shall be protected by fencing or other means to prevent unnecessary disturbance.

11. During construction, temporary erosion control facilities (e.g., impermeable dikes, filter fences, hay bales, etc.) shall be used as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff.

12. Revegetated areas shall be regularly and continually maintained in order to assure adequate growth and root development. Physical erosion control facilities shall be placed on a routine maintenance and inspection program to provide continued erosion control integrity.

13. Where construction activities involve the crossing and/or alteration of a stream channel, such activities shall be timed to occur during the period in which streamflow is expected to be lowest for the year.

Land Development/Urban Runoff Control Actions for Susan River Watershed

1. To protect riparian vegetation and wetlands from land disturbance activities, the Regional Board shall recommend that Lassen County and the City of Susanville require new development or any land disturbing activities to include buffer strips of undisturbed land, especially along the Susan River and its tributaries.

2. The Regional Board, with assistance from the City of Susanville and the California Department of Transportation (Caltrans), should conduct monitoring of the Susan River and Piute Creek within the City of Susanville to assess impacts from urban runoff. Control measures should be planned and implemented based on the results of the monitoring. The monitoring plan should be developed to identify nonpoint sources needing control. Monitoring proposals will be submitted by the Regional Board, and work will be conducted as resources allow and as the Susan River gains priority.

3. The Regional Board shall encourage and assist other agencies in watershed restoration efforts along the Susan River.

4. The Regional Board shall encourage the City of Susanville and Lassen County to adopt a comprehensive grading ordinance. These ordinances should require, for all proposed land disturbing activities, the use of Best Management Practices to reduce erosion and stormwater runoff, including but not limited to temporary and permanent erosion control measures.

5. The Regional Board shall encourage the City of Susanville, Lassen County and Caltrans to implement Best Management Practices to reduce erosion and stormwater runoff when constructing and maintaining roads, both paved and unpaved, under their jurisdiction.

Road Construction and Maintenance

Road construction activities often involve extensive earth moving, including clearing, scarifying, excavating for bridge abutments, disturbing or modifying floodplains, cutting, and filling. Additionally, the potential for land disturbance exists from construction materials, equipment maintenance, fuel storage facilities, and general equipment use.

Once constructed, impervious road surfaces create another source of water pollution. Oils, greases, and other petroleum products, along with such toxic materials as battery acid, antifreeze, etc., may be deposited along the road surfaces. These contaminants become suspended or dissolved in any stormwater runoff that is generated on the road surfaces. Unless otherwise treated, these contaminants will flow toward local surface or ground waters. (See "Stormwater" section of this Chapter.)

Road maintenance can be potentially threatening to water quality in a number of ways. Below-grade culverts slowly fill with sediment and are cleaned out periodically, sometimes by flushing accumulated sediment into downstream drainageways. Grading of shoulders and drainageways can detach sediments and increase the risk of erosion into nearby surface waters. Road surfaces may be repainted or resealed

with materials that harden quickly, but which can be washed off while still fresh by stormwater runoff.

In the winter, roads are often snowy, icy, or wet. To reduce winter road hazards, maintenance crews may remove the snow or ice, apply sand to provide added traction, and/or apply deicing chemicals to melt the snow and ice. Sand is rapidly dissipated or crushed by the traffic, and must be replaced frequently. Great quantities of sediment enter drainageways and/or surface waters due to this practice. Snow may be removed mechanically via snowplow or snowblower. This practice is not particularly detrimental to water quality in itself, but the snow often carries substances from the roadway when removed. Sediments, chemical deicers, and vehicle fluids may travel much farther than they would otherwise, possibly reaching area surface waters. Ice and small accumulations of snow may be removed with chemical deicers. The deicer in widest use is rock salt (sodium chloride), due to its low cost, high availability, and predictable results.

Winter road maintenance was brought to the forefront in 1989 when significant numbers of roadside trees in the Lake Tahoe Basin suddenly started dying. The public outcry caused many environmental groups and regulatory agencies, including the Regional Board, to look more closely at what had been a more or less unscrutinized, unregulated process in the past. Data began to show that Caltrans was using very high amounts of salt each winter, and the figure seemed to increase from one year to the next. The consensus of the various regulatory agencies was that Caltrans should reduce salt use, explore various alternate deicers, and monitor the impacts of salt applications on soil, water, and vegetation. Salt use decreased significantly from 1989-1992, due to more careful application procedures and to drought conditions.

At least three alternate deicers have been explored: calcium magnesium acetate, potassium acetate, and magnesium chloride with corrosion inhibitors. These products have shown some promise, but further study is required. The cost to switch to an alternate deicer will be significant. The road departments are unwilling to make the switch unless an alternate deicer is demonstrably better environmentally, will not require too much adjustment on the part of the maintenance crews and equipment, and will actually do an effective and predictable job when applied.

However, Caltrans' monitoring of vegetation showed minimal and temporary salt accumulation within the vegetation. During the spring, any salt that had accumulated in the vegetation was flushed out from the plant material. The impacts of chemical deicers on fish and wildlife within the Lahontan Region have not been studied.

Control Measures for Road Construction and Maintenance

(Additional control measures for roads are included in the "Stormwater" section of this Chapter.)

The Regional Board regulates road construction and maintenance projects within the Lahontan Region, concentrating efforts on major construction and construction in sensitive areas. Major construction projects and those projects in sensitive areas are most often regulated under individual WDRs, and are routinely inspected. Less significant projects may be issued conditional waivers of WDRs. The Regional Board has also adopted road maintenance waste discharge requirements for some county governments in the Region. Road construction and maintenance in the Lake Tahoe Basin is also regulated under municipal NPDES Stormwater Permits (see Chapter 5).

For all road projects, the Board requires that construction be conducted in a manner which is protective to water quality, and that, at the end of a given project, the site be restabilized and revegetated. These requirements are detailed in a Management Agency Agreement with Caltrans regarding the implementation of BMPs. Additionally, all road projects are to be in compliance with the Caltrans Statewide 208 Plan (CA Dept. of Transportation 1980), which was approved by the State Board in 1979. This Plan contains a commitment to implement BMPs, but does not include great detail on the BMPs themselves. The State Board should encourage Caltrans to update its 208 plan to provide such detail, with particular attention to:

- stormwater/erosion control along existing highways
- erosion control during highway construction and maintenance

- reduction of direct discharges (e.g., through culverts)
- reduction of runoff velocity
- infiltration, detention and retention practices
- management of deicing compounds, fertilizer, and herbicide use
- spill cleanup measures
- treatment of toxic stormwater pollutants

Since much of the implementation of BMPs on highways is done by Caltrans' contractors, the selection of qualified contractors and ongoing education of construction and maintenance personnel on BMP techniques are particularly important.

In the Lake Tahoe Basin, all governmental agencies assigned to maintain roads are required to bring all roads in the Lake Tahoe Basin into compliance with current "208" standards within a specified time schedule. That is, all existing facilities must be retrofitted to handle the stormwater runoff from the 20-year, 1-hour storm, and to restabilize all eroding slopes. The twenty-year time frame for this compliance process ends in 2008.

The Regional Board should allow salt use to continue as one component of a comprehensive winter maintenance program. However, the Regional Board should continue to require that it be applied in a careful, well-planned manner, by competent, trained crews. Should even the "proper" application of salt be shown to cause adverse water quality impacts, the Regional Board should then require that it no longer be used in environmentally sensitive areas, such as the Lake Tahoe Basin. Similarly, should an alternate deicer be shown to be effective, environmentally safe, and economically feasible, its use should be encouraged in lieu of salt.

Figure 4.8-1
OWENS HYDROLOGIC UNIT