

# DRAFT ENVIRONMENTAL IMPACT REPORT

SCH No. 2015091001



## SKYPARK AT SANTA'S VILLAGE

*Lead Agency:*  
County of San Bernardino  
San Bernardino County  
Land Use and Services Department  
Planning Division  
385 North Arrowhead Avenue,  
First Floor,  
Sane Bernardino, California 92415



MAY 2016

**Michael Baker**

INTERNATIONAL

Michael Baker International  
3536 Concoors, Suite 100  
Ontario, California 91764

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**Ruth Villalobos & Associates**

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# Section 1.0 EXECUTIVE SUMMARY

SKYPARK AT SANTA'S VILLAGE  
DRAFT ENVIRONMENTAL IMPACT REPORT

## **1.0 EXECUTIVE SUMMARY**

### **1.1 INTRODUCTION**

The proposed SkyPark at Santa's Village Project (Project) implementation, as well as operations and maintenance, represents the Project. This section summarizes the proposed SkyPark at Santa's Village Project implementation, operations, maintenance, and its history, and provides an overview of the analysis contained in *Chapter 4, Environmental Analysis*. The California Environmental Quality Act (CEQA) requires that this section summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) alternatives to the Project; and 5) implementation of mitigation measures

### **1.2 PROJECT LOCATION**

#### Regional Location

The Project site is located on the north and south sides of State Route (SR-18), approximately one-half mile east of the intersection of SR-18 and Kuffel Canyon Road in the unincorporated San Bernardino Mountain community of Skyforest. (Refer to Exhibit 3.0-1, *Regional Vicinity Map* & Exhibit 3.0-2, *Property Boundary Map*). The project site includes the now closed Santa's Village attraction.

The proposed Project is located in the Lake Arrowhead Special Development Residential (LA/SD-RES) Land Use District. A small portion of the Project site is located within the Lake Arrowhead Single Residential 14M (LA/RS-14M) District. The site is also located within the Fire Safety (FS1) Overlay and portions of the site on the south are located within the Moderate-High Geologic Hazard Overlay District.

### **1.3 PROJECT HISTORY**

In the late 1800's the property was established as a family farm and sawmill operation. Portions of the present timber stand were cleared and agricultural crops were planted. The sawmill was in operation in 1885 at the present site of the pond. The Henck family gained ownership of the property in 1918 and opened Santa's Village in 1955 until its closure in 1998. The property was purchased by the Skyforest Company in 2000 and the parking lot on the north side of SR-18 (north western portion of the Project site) and the overflow parking lot south of SR-18 (proposed campsite area) were used primarily to store logs, and as a grinding site following the bark beetle outbreak in 2002.

According to the 1990 Forest Management Plan by Mr. James Bridger, "The entire property was burned in 1919 and the portion south of SR-18 was re-burned in 1956." The 2003 "Old Fire" also burned the area south of SR-18 and it appears that the fire burned through the forested areas north of SR-18. However, it is clear that the portions of the property on the north side did not burn as hot as on the south side as very little scorching is evident on the residual trees, and also due to the fact that developed portions of the Project site, including existing buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955 remained intact.

### **1.4 PROJECT UNDER REVIEW**

The proposed Project includes a General Plan Amendment to change the Official Land Use District from Lake Arrowhead/Special Development- Residential (LA/SD-RES) & Lake Arrowhead/Single Residential-14,000 Square Foot Minimum lot size (LA/RS-14M) to Lake Arrowhead/Rural Commercial (LA/CR) on 152.92 Acres.

The proposed project also includes an amendment to the Lake Arrowhead Community Plan and the Circulation Element of the County of San Bernardino General Plan. An amendment to the Lake Arrowhead Community Plan Policy LA/CI 1.14 is proposed to provide additional clarification and specificity for implementation while retaining the initial intent of the policy.

Policy LA/CI 1.14 is currently in the Lake Arrowhead Community Plan as:

Complete Cumberland Road<sup>1</sup> from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.
- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

The proposed amendment to this policy is identified using underline for new text and strikethrough for removed text as follows:

~~Complete Cumberland Road from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area~~ Require the design and construction of the extension of Cumberland Drive from Cedar Glen to State Highway 18 as a condition of development of any new residential subdivision extending from Cumberland Drive, Blue Ridge Drive, or Greenbriar Drive and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.
- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

Currently Cumberland Drive is designated as a Mountain Secondary (60-foot right-of-way) in the County's General Plan Circulation Element, as shown on Figure CI-2, *Major Roads and Freeways – Mountain Region*. The proposed amendment to the Circulation Element is to change the designation of Cumberland Drive from Mountain Secondary to Local Road (40-foot right-of-way). Cumberland Drive, as currently identified as a

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<sup>1</sup> In the Lake Arrowhead Community Plan Policy LA/CI 1.14, the roadway in reference is called Cumberland Road, however, on other maps (Google, Mapquest, etc.) it is referred to as Cumberland Drive. The proposed changes to Policy LA/CI will use Cumberland Drive.

Secondary Street in Figure CI-2, *Major Roads and Freeways – Mountain Region* of the Circulation Element, would be removed from this figure as local streets are not shown on it.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*.

The proposed Project includes a Conditional Use Permit (CUP) to re-establish an Outdoor Commercial Entertainment Center which includes an Amusement Park, Campground, Meadow/Wetland Rehabilitation, Restaurants, Bar, Wedding & Reception Facility, Retail, Trails, Recreational Activities and other Accessory Uses on 152.92 Acres.

The proposed project includes the redevelopment and re-use of the existing Santa's Village attraction. The proposed Project also includes the development of a mixed-use adventure park that would include a variety of activities and services. Nineteen original buildings exist on the project site totaling 23,389 square feet. It is intended that the exteriors of these original buildings would not be significantly altered. Rather, the exterior of the buildings would be rehabilitated (re-painted, repaired). The interiors would be redeveloped in order to fulfill a variety of uses. All existing buildings would remain. No buildings are proposed to be demolished. The existing buildings that are being rehabilitated are identified on Exhibit 3.0-4, *Detailed Site Plan* and are listed in Table 1.0-1, *Existing Buildings to be Rehabilitated* below.

Improvements to Santa's Village attraction will also include the repair of hardscaping and landscaping. The asphalt pavement between the buildings will be replaced with concrete walkways and rock and other hardscaping to improve on site drainage. The attraction is located within and includes native forest trees and native shrubs. The proposed improvements include only minimal landscaping which may include native and drought tolerant shrubs and annuals/flower beds commonly used in landscaping.

The site currently has minimal landscaping and will continue to have minimal landscaping as the site does not have a formal irrigation system. Existing forest trees are supported by natural rainfall and snow. The understory landscaping is also supported by natural rainfall and snow and is only supplemented by hand watering.

The Old Fire in 2003 resulted in the loss of mature trees in the Project area on the north and south side of SR-18 adjacent to the existing parking lots and highway. In March of 2016 a Cooperative Agreement was executed with Cal Fire to implement reforestation at in this area burned during the Old Fire. The reforestation included planting of approximately 6,000 tree saplings 10 feet apart by Cal Fire hand crews and SkyPark volunteers. The planting was completed in April 2016 and included ponderosa pine and Jeffrey pine.

**Table 1.0-1: Existing Buildings to be Rehabilitated**

Building	Identification # on Exhibit	Square Footage
Welcome House & Gift Shop	1	Retail 2,122 Office 1,531
Santa's House	2	288
Saint Nic's Patio and Grill	3	1,856
Pedal Pub/ Tavern	4	688
K' Candy Shop	5	905
The Gathering House	6	1,328
Coffee & Tea House	7	756
SkyPark Activity Center and Security Office	8	Activity Center 2,148 Security Office 1,227
Stone's Throw Gazebo	9	756
Sky Trading Company	10	2,952
Sky Pavillion	11	1,723
Reindeer Barn/ Retail & Crafts	12	1,950
Bouldering Room	13	720
Men's & Women's Restroom	14	750
Men's & Women's Restroom	15	272
Pebble Mine	16	192
Chapel	17	272
Good Witch's Bakery/Restaurant	18	990

Building	Identification # on Exhibit	Square Footage
Maintenance Building	25	405
Total		23,389

Additional recreational and entertainment amenities will be constructed as a part of the proposed project and are outlined in Table 1.0-2, *New or Expanded Recreational and Entertainment Amenities* below.

**Table 1.0-2: New or Expanded Recreational and Entertainment Amenities**

Amenity	Identification # on Exhibit
Reception Site	19
Wedding Ceremony Site	20
Skating Rink	21
Bouldering & Climbing Wall	22
Spider Jump/ Amusement	23
Playground 777	24
Maintenance Building	25
Monorail	26
Aerial Adventure	27
Trail System	28
Water Features – Silver Slipper Pond & Lady Bug Pond	29
Treehouse Aerial Adventure/ Playscape	30
Coaster Bike Play Area	31

The proposed Project consists of the following primary components:

Amusement Park Zone

The Amusement Park Zone is an area within the property boundary where more concentrated amusement park use will occur. The zone is identified as the area of historic commercial use, previously impacted by the original development of Santa’s Village. In order for SkyPark at Santa’s Village to retain repeat visitors, to remain competitive in the Adventure and Amusement Park Industry, and to continue to promote tourism in the mountain community, replacement of attractions and/or amenities with new attractions and amenities will be necessary and will occur in the Amusement Park Zone over time.

The types of new attractions and amenities in the Amusement Park Zone that are predicted at this time (but not limited to) could include implementation of the original car ride, playground amenities, climbing walls, additional zip lines, snow play activities, and small support structures, such as storage sheds or concessions or other attractions that its primary function is entertainment or recreation. The attractions or features will be similar to the proposed project components outlined below and will not require extensive grading or vegetation clearing or result in a greater generation of noise or light. These future attractions will not exceed 40 feet in height, using the existing 40-foot monorail as the baseline of existing improvements in the Amusement Park Zone. The existing 40-foot monorail does not extend higher than existing old growth forest. This height restriction will ensure the visual setting of the forest will be retained.

A Public Announcement (PA) System will be used at the park with multiple directional speakers in order to make announcements to park users or to play recorded background music. Live or recorded music will be used for both private venues, weddings and general park use within the Amusement Park Zone. Productions in dance, instrumental and vocals such as themed Christmas Carolers are examples of other live music that will occur.

The retail, office, restaurants, attractions, recreational amenities will include standard lighting typically used for commercial/retail/residential development. Ornamental lighting, i.e. Christmas lights will be used on Christmas trees and buildings. Low height/low level lighting will also be used throughout the park as needed for safety lighting of walkways. No "spot lights" or other skyward lights are proposed to be used. All lighting in the park will include shields that direct the light in the intended direction.

## Trails

### **Fantasy Forest Trail**

The Fantasy Forest Trail is an existing trail that was used as a nature trail during the parks original years of operation. The trail cuts across the back of the park and is depicted as an existing hiking trail on the trail map (Exhibit 3.0-5, *Trails Plan*). It is within the boundary of the Amusement Park Zone as it will be open during the operating hours of the park and lit as a nighttime forest walk. It would be the only trail

available after sun down and is very limited in its proximity to the park and distance. The trail distance is approximately 1/4 mile and is an interactive lighting attraction at night. The lighting attraction includes lights with various colors, patterns, and intensities that will be used to illuminate the forest immediately adjacent to the trail. The interactive component is movement sensors on the lights so that as visitors are walking down the trail additional lights are activated when activated by the visitors. All Fantasy Forest Trail lighting will be directed downward and will be shielded to control the direction of the lighting.

Improvement to the Fantasy Forest Trail includes clearing as needed for a width of 36-48-inch wide and sections of up to 100 feet in length will be elevated on a plank walkway. Un-elevated segments of the trail will be surfaced with decomposed granite.

### **Multi-Use Trail**

This is open for bicycle, wheel chair, pedal assist, and pedestrian traffic. This trail is specifically designed to accommodate special needs. It does not include motorized vehicles with the exception of electric assist vehicles for special needs. Construction techniques may include light weight track vehicles which include small backhoe and skid steer. It will be 5 feet to 8 feet maximum width, and surfaced with decomposed granite.

### **Hiking Trails**

This is a special use trail designed for hiking only. It is a single track trail not to exceed 36 inches in width. Used primarily for recreation, however, the use of signage, fencing and other forms of structures and materials are used for educational purposes. Surface is natural trail with the possible use of elevated walkways to prohibit soil disturbance in very wet conditions. Construction of these trails are by hand tools to include, McClouds, shovels, and rakes.

### **Mountain Bike Trail**

This is a special use trail for bicycles only. This trail is a single track trail designed for "one way" directional use. No double, side by side axle vehicles are allowed. Construction of these trails are by hand tools to include, McCloud, shovels, and rakes.

Special features are implemented to include log crossings, water bars for slope erosion, safety rail, and riding features such as protective berms and wood features.

### **Access Roads**

This is a multi-use road for the continued purpose of accessing utility easements throughout the park. The road is a double wheel, side by side, four-wheel drive roadway accessible to park guest, utility companies and emergency vehicles. Most roads are dirt with the exception of some existing paved surfaces in the park and within property boundaries.

### **Existing Double Track**

This is capable of holding a four-wheel vehicle. Historically used for lumbering, emergency access and recreation. Existing double track trails have signage depicting their categorical use, many being multi-use trails. Including hiking, bicycle and emergency access use.

### **Existing Single Track**

This is a special use trail for bicycle use only. The trail system is "one way" directional traffic only. The width of the trail is closer to 24-inch and is constructed with hand tools to include McClouds, shovels, and rakes.

All of the trails will be maintained by hand tools. Techniques established by the US Forest Service and the International Mountain Biking Association (IMBA) are implemented to reduce impacts to soils erosion, noise, off trail access and responsible forest practices. An example of the signage is attached.

### **Wilderness Adventure/ Zipline and Aerial Park**

This feature would include ziplines, rope courses, adventure swings, climbing walls, balance features, log crossings, and exploration trails. The Forest Zipline and tree house is estimated to be an average of 30 feet in height and approximately 1,200 feet in length; however the final designs would determine ultimate measurements. The tree house would have a zipline that is proposed to be approximately 16 feet high. A small children's zipline is proposed that would be approximately 8 feet high and 30

feet long. The tree house would be an engineered structure built among the trees. The final tree house platforms would either be constructed using a tree as the base or a standalone structure as shown within the Photo Figures at the end of this document. Final design would be dependent on County approval. The tree house is the only structure proposed to being developed north of SR-18 at the existing SkyPark at Santa's Village site.

#### Forest Playground

This feature would include bridges and swings. The playground would also provide seating; natural playscapes and sensory challenges such as log walks, stepping-stones and exploration.

#### Skybike Monorail

The existing bumblebee ride would be converted to a pedal operated bike monorail that would traverse the southern portion of the park. Existing infrastructure will be used. The bumblebee cars will be replaced with pedal operated bikes.

#### Fly Fishing Lake and Stream

Recreational fishing and trout stocking are planned uses of the existing on-site pond and additional three ponds (water and sediment control basins) that will be created as part of the Hencks Meadow restoration. Fly-fishing clinics, guides and lessons, and fly-fishing instruction would be offered at the site's improved and existing reservoir/pond system. The on-site ponds and connecting stream would be stocked with rainbow trout as permitted by the Fisheries Branch of the California Department of Fish and Wildlife. Historically the pond has been stocked with trout. Rainbow trout fishing would be provided for catch and keep, or release as the guest wishes.

#### Hiking and Tours

Eco-tours, education, and wildlife would be offered. The project will promote wildlife and habitat education. Job skills will be introduced through "Pathways" an ongoing ROP program through local school districts. Ecotourism involving bird watching blinds, trails

and assisted programs will be implemented to educate the public and students on the importance of wildlife preservation.

#### Santa's Village/Winter Attractions

Winter attractions at Santa's Village, would operate during the months of November and December. Winter attractions would include an outdoor ice rink, snowshoeing, sledding, and snow play. It is anticipated that these attractions would attract the largest number of visitors for the year.

#### Retail

A variety of related retail shops would be developed throughout the property. These uses would include gift shops, equipment rentals/purchases, and a variety of other retail uses that would be located within the existing buildings.

#### Restaurants

A full service restaurant, snack bar, pub, and bakery/candy store are proposed within the existing buildings.

#### Wedding Services

A wedding chapel, outdoor reception area, and full service wedding event center (including bridal room) would be developed within the existing buildings.

#### Campground Site

A campground is proposed to be located south of SR-18. Refer to Exhibit 3.0-6, *Campground Site Plan*. Minor grading would be required to improve the existing dirt road to provide access to and create 70 RV sites and approximately 35 tent campsites within the 20-acre campground. A restroom will be constructed on the campground site and would utilize a septic system that would be sized per restroom requirements and would have a tank with a leach field in the same design standards as the existing septic systems in the Santa's Village site. The chambers that separate the solids are pumped out periodically as needed. The proposed campground restroom building will be approximately 1,450-1,500 square feet. It will include 2 laundry units, 2 urinals, 8 toilets, 6 showers (4 standard and 2 handicap) and 8 wash basins/sinks. Several community

camp fire rings are proposed at the campground. These camp fire rings would be supplied by natural gas and burning of wood or other materials at the campground would not be allowed.

### Parking and Circulation

The existing paved parking lots, on north and south side of SR-18, will continue to be used. The proposed project does not require expansion of parking lots. The existing parking lots do not have any lighting and no addition of lighting is proposed. Parking lots will be resurfaced and re-stripped for parking lots and circulation direction. There are approximately 550 spaces within the existing parking areas.

### Utilities

The northern portion of the project site would utilize existing utilities already located onsite, refer to Exhibit 3.0-8, *Utility Easements*. Currently, there are no utilities located on the southern site. An existing water and gas line on the northern portion of the site will be extended to provide utility for the southern site for the restroom and fire flow at the campground area.

### Operating Hours

Peak season for the proposed project is anticipated to be November and December (approximately 2,000 visitors per day). Low season is anticipated to be during spring and early fall. Summer is anticipated to have an average of 1,000 visitors per day. Operating hours are proposed to be 8AM to 10PM. The project is proposed to be fully operational year round, with no planned closures.

### Offsite Improvements

Offsite improvements would be included with the proposed project and would involve new dedicated left turn lanes and signalized intersection with crosswalks on SR-18 at the revised entrance to SkyPark. SR- 18 would be widened to accommodate two left-turn lanes into the driveways of the campground site and the Santa's Village site as vehicles approach from both directions of SR-18. Some trees would need to be removed as part of the widening of SR-18 and some trees would be trimmed to

provide improved vision if the trees surrounding the driveways conflict with vehicles safely exiting from the proposed project driveways.

### Meadow Restoration

The project also includes the removal of waste from the site and restoration of Hencks Meadow. Previously, the project site was used as a storage site for wood material infested by the bark beetle and has left the site with debris, woodchips, firewood, bark and trash. A Conservation Plan for the meadow was developed by the US Department of Agriculture, Natural Resources Conservation Service which includes construction of water & sediment control basins and a streambank protected waterway that conveys flows between them. The Conservation Plan also includes planting of native species, installation of structures for wildlife, and on-going herbaceous weed control. Refer to Exhibit 3.0-7, *Meadow Conservation Plan*. Ultimately, improvements to the health beauty and natural resources of the project area would serve as a balanced ecosystem that would be created for education, recreation and wildlife.

## **1.5 AREAS OF CONTROVERSY**

Section 15123 of the *CEQA Guidelines* requires that an EIR contain a brief summary of the proposed actions and its consequences. Sections 15123(b)(2) and (3) also require that the EIR summary identify areas of controversy known to the lead agency, issues raised by agencies and the public, and issues to be resolved, including the choice among alternatives and whether, or how, to mitigate significant adverse physical impacts.

A total of 11 comment letters were received during the NOP comment period. Comment letters were received from both the general public and public agencies. Overall issues raised during the NOP review period in submitted letters and at the public scoping meeting include the following:

- Aesthetics, operating hours, light use and light pattern impacts, noise and light impacts on nearby residences and adjacent forest, SR-18 scenic byway and viewshed;
- Air quality from additional auto and bus traffic;
- Wildlife migration and wildlife corridors;

- Threatened and endangered species, including southern rubber boa, flying squirrel and the spotted owl;
- Water requirements, water supply reliability and fire flow;
- Erosion and watershed protection from existing and proposed trails;
- Risk of wildfires and firefighting capacity;
- Potential growth inducement;
- Site access and evacuation safety;
- Water quality and hydrology of Hooks Creek, a headwaters stream in the Upper Mojave River;
- Construction and post-construction storm water management practices.

## 1.6 UNAVOIDABLE SIGNIFICANT IMPACTS

Section 15162(b) of the CEQA Guidelines requires an EIR to discuss the significant environmental effects of a proposed project that cannot be avoided if the proposed project is implemented, including those which can be mitigated, but not reduced to a less than significant level. These impacts are referred to as "significant and unavoidable impacts" of a project. More information on these impacts is found in Section 4 of this Draft EIR. All impacts were found either less than significant without mitigation or reduced to less than significant with incorporation of mitigation measures. Therefore, the proposed Project will not result in significant and unavoidable impacts.

## 1.7 ALTERNATIVES TO THE PROJECT

This is a summary of Project alternatives described in Section 8.0, *Alternatives*, which contains a detailed discussion. The CEQA Guidelines (Section 15126.6(e)(2)) require that the alternatives discussion include an analysis of the "No Project" Alternative. Pursuant to CEQA, the "No Project" Alternative refers to the analysis of existing conditions (i.e., implementation of current plans) and what would reasonably be expected to occur in the foreseeable future if the Project was not approved. Potential environmental impacts associated with two alternatives are compared below to assess impacts from the Project. These alternatives include: 1) "No Project" Alternative; and 2) Residential Development

Alternative. Refer to Table 1.0-3, *Comparison of Alternatives*, for an impact matrix that compares the Alternatives to the proposed Project.

**Table 1.0-3: Comparison of Alternatives**

Topic	Alternative 1: "No Project" Alternative	Alternative 2: Residential Development Alternative
Aesthetics, Light, and Glare	<	>
Agriculture and Forestry	=	>
Air Quality	<	>
Biological Resources	<	>
Cultural Resources	=	>
Geological Resources	<	=
Greenhouse Gas Emissions	<	>
Hazards and Hazardous Materials	<	=
Hydrology, Drainage, and Water Quality	>	>
Land Use	=	>
Mineral Resources	=	=
Noise	<	>
Population and Housing	=	=
Public Services	=	>
Recreation	>	>
Transportation and Circulation	<	>
Utilities	=	>
Achieves Project Objectives	NO	NO

- = Impact is equivalent to impact of proposed Project (neither environmentally superior nor inferior).
- < Impact is less than impact of proposed Project (environmentally superior).
- > Impact is greater than impact of proposed Project (environmentally inferior).

Table 1.0-4, *Project Objectives Consistency Analysis*, identifies objectives consistency for each of the proposed alternatives.

**Table 1.0-4: Project Objectives Consistency Analysis**

Project Objective	Alternative 1: “No Project” Alternative	Alternative 2: Residential Development Alternative
	<b>Consistent:</b>	<b>Consistent:</b>
Rehabilitate and repurpose the existing Santa’s Village attraction and re-open for the public to enjoy	No	No
Provide the opportunity for economic stability in the surrounding mountain communities	No	No
Provide a balance between both passive and active recreational uses that meet the demands of the community and surrounding area	No	No
Provide the opportunity to become a role model for future sustainable, conservation-based recreation parks in the State	No	No
Promote the importance of wildlife and habitat education through eco-tourism	No	No
Provide job training and career placement in partnership with Rim of the World School district through “Pathways” a Regional Occupational Program and other outreach programs	No	No
Restore the existing meadow on site through the implementation of a Conservation Plan prepared by the USDA Natural Resources Conservation Service	No	Yes
Provide the opportunity for a healthier community through outdoor recreation activities such as hiking, biking, fishing, climbing and environmental studies	No	No
Revitalize the existing pond to improve overall hydrology and further support recreational activities	No	No
Provide additional facilities where community gathering events can be held	No	No
Provide safe traffic access into and through the Project area	Yes	Yes
Provide adequate parking facilities within the Project area	Yes	Yes
Provide camping opportunity to further cater to tourism within the Project area	No	No
Provide on-site operation and maintenance for hospitality, recycling, enhancement	No	No
Provide on-site security support	No	No

*Alternative 1: “No Project” Alternative*

The “No Project” Alternative (Alternative 1) assumes that the proposed Project improvements would not be completed, including the restoration and re-purposing of the existing Santa’s Village attraction buildings, the Wilderness Adventure/Zipline and

Aerial Park, the Forest Playground and Skybike Monorail, restoration of Hencks Meadow and stocking of the pond for fly-fishing, improved trails for eco-tours, hiking and biking, and the campground.

The "No Project" Alternative assumes that no development would occur on the Project site, and existing Santa's Village attraction buildings and parking lot and disturbed Hencks Meadow and area south of SR-18 would remain in its current state. The Santa's Village attraction would continue to be closed to the public. As outlined in Table 1.0-4 *Project Objectives Consistency Analysis* above, this alternative does not meet any of the project objectives with the exception of providing adequate traffic access and adequate parking. This is because the current traffic access and parking is adequate for the existing use, as personal office space for the current property owner.

Alternative 2: Residential Development Alternative

A portion of the Project site is designated as Lake Arrowhead/Single Residential- 14,000 Square Foot Minimum lot size (LA/RS-14M). Areas to the north and west of the Project site are also designated as LA/RS-14 and include existing residential lots/homes. If the proposed Project were not to be implemented it is anticipated that the site may be developed as residential, consistent with the residential community to the north and west with a minimum lot sizes of 14,000 square foot. The total Project site, north and south of SR-18 is 152.92 acres. It is anticipated that even if the site was developed as residential that Hencks Meadow, the pond, Hooks Creek and associated riparian habitat would not be developed, approximately 11.4 acres, and that the steep southern facing slopes on the southern portion of the property would not be developed, approximately 27.8 acres. This would leave approximately 114 acres for a maximum of 354 residential lots (14,000 square foot minimum) and associated roadways.

Alternative 2 would not meet the Project objectives. Alternative 2 would include the development of up to 354 single family residential lots. Alternative 2 would have greater impacts to than proposed Project.

*Environmentally Superior Alternative*

*CEQA Guidelines* require that an Environmentally Superior Alternative be identified; that is, an alternative that would result in the fewest or least significant environmental impacts. If the "No Project" Alternative is the environmentally superior alternative, State *CEQA Guidelines* Section 15126.6 (e)(2) require that another alternative that could feasibly attain most of the basic Project's basic objectives be chosen as the environmentally superior alternative.

Alternative 1 would result in impacts equivalent to the proposed Project in the areas of agriculture and forestry, cultural resources, land use, mineral resources, population and housing, public services, and utilities. Alternative 1 would result in less impacts than the proposed Project in all other areas. Alternative 2 would result in impacts equivalent to the proposed Project in the areas of geological resources, hazards and hazardous materials, mineral resources, and population and housing. Alternative 2 would result in greater impacts than the proposed Project in all other areas.

Alternative 1 would not meet the objective of restoring Hencks Meadow, whereas it is expected this objective would be met with implementation of Alternative 2. With the exception of providing existing safe traffic access and adequate parking, both Alternative 1 and Alternative 2 do not meet any of the other project objectives.

**SUMMARY TABLE**

Table 1.0-5, *Environmental Impact Summary*, identifies the areas of environmental impact the Project will generate, and when feasible, mitigation measures to reduce those potential impacts.

**Table 1.0-5: Environmental Impact Summary**

Impact Statement	Significance	Mitigation Measure
<i>Aesthetics</i>		
<i>Impact 4.1-1: Would the project have a substantial adverse effect on a scenic vista?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.1-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</i>	Less than significant with mitigation incorporated.	<b>MM AES-1:</b> Trees that are removed as a result of roadway improvements shall be replaced by replanting of native species at a minimum height of 8 feet at a 2:1 ratio of new trees to removed trees in the vicinity of the area they were removed. A landscape plan which includes the species, size, and location of trees to be planted shall be submitted to and approved by San Bernardino County Land Use Services Department and Caltrans.
<i>Impact 4.1-3: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.1-4: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</i>	Less than significant with mitigation incorporated.	<b>MM AES-2:</b> All exterior and permanent lighting shall be the minimum lumen (measure of the total quantity of visible light emitted by a source), shielded downward, and stationed at the minimum height in order to light the target area. The County of San Bernardino Building and Safety Department will review

Impact Statement	Significance	Mitigation Measure
		<p>construction plans for compliance with applicable codes, including the Night Sky Protection Ordinance, and will conduct final inspection approval for issuance of Certificate of Occupancy.</p> <p><b>MM AES-3:</b> All lighting to be installed for the Fantasy Forest Trail shall be at the minimum lumen, shielded downward, and stationed at the minimum height in order to light the target area. All Fantasy Forest Trail lighting shall not extend beyond and illuminate more than 50 feet into the forest from the edge of either side of the trail. Upon completion of the Fantasy Forest Trail a report shall be completed by the contractor that verifies the lighting does not extend more than 50 feet into the adjacent forest. This report shall be submitted to the Land Use Services Department for review and approval.</p>
<b><i>Agriculture and Forestry</i></b>		
<p><b><i>Impact 4.2-1:</i></b> <i>Would the Project 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</i></p>	<p>Less than significant.</p>	<p>No mitigation is necessary.</p>

Impact Statement	Significance	Mitigation Measure
<i>California Resources Agency, to non-agricultural use?</i>		
<b>Impact 4.2-2:</b> <i>Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?</i>	No impact.	No mitigation is necessary.
<b>Impact 4.2-3:</b> <i>Would the Project 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))?</i>	No impact.	No mitigation is necessary.
<b>Impact 4.2-4:</b> <i>Would the Project result in the loss of forest land or conversion of forest land to non-forest use?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.2-5:</b> <i>Would the Project 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?</i>	No impact.	No mitigation is necessary.
<b>Air Quality</b>		
<b>Impact 4.3-1:</b> <i>Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?</i>	Less than significant with mitigation incorporated.	<b>MM AQ-1:</b> Prior to issuance of any Grading Permit, San Bernardino County Land Use Services Department shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or

Impact Statement	Significance	Mitigation Measure
		<p>other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD 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:</p> <ul style="list-style-type: none"> <li>• Apply soil stabilizers or moisten inactive areas.</li> <li>• Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).</li> <li>• Minimize in-out traffic from construction zone.</li> <li>• Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard.</li> <li>• Sweep streets daily if visible soil material is carried out from the construction site.</li> </ul>

Impact Statement	Significance	Mitigation Measure
<b>Impact 4.3-2:</b> Implementation of the Project would not violate air quality standards or substantially contribute to an existing or projected air quality violation during long-term operations.	Less than Significant.	No mitigation is necessary.
<b>Impact 4.3-3:</b> Would the Project expose sensitive receptors to substantial pollutant concentrations?	Less than Significant.	No mitigation is necessary.
<b>Impact 4.3-4:</b> Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant.	No mitigation is necessary.
<b>Impact 4.3-5:</b> Would the Project create objectionable odors affecting a substantial number of people?	Less than Significant.	No mitigation is necessary.
<b>Impact 4.3-6:</b> Short-term construction activities associated with the implementation of the proposed project and other related cumulative projects, would not result in significant air pollutant emission impacts.	Less than significant with mitigation incorporated.	Refer to Mitigation Measure MM AQ-1 above.
<b>Impact 4.3-7:</b> Development associated with implementation the proposed project and other related cumulative projects would not result in significant impacts pertaining to operational air emissions.	Less than Significant.	No mitigation is necessary.
<b>Impact 4.3-8:</b> Development associated with the proposed project and other related cumulative projects would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant.	No mitigation is necessary.
<b>Impact 4.3-9:</b> Development associated with the proposed project and other related cumulative projects would not	Less than Significant.	No mitigation is necessary.

Impact Statement	Significance	Mitigation Measure
<p><i>create objectionable odors affecting a substantial number of people.</i></p>		
<p><b>Biological Resources</b></p>		
<p><b>Impact 4.4-1:</b> <i>Would the Project 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 Service?</i></p>	<p>Less than significant with mitigation incorporated.</p>	<p><b>MM BIO-1:</b> A qualified biologist or botanist shall conduct a pre-construction clearance survey for special-status plant species on the project site during the appropriate blooming period prior to trail creation or construction in new areas. If present, any special-status plants shall be clearly flagged for avoidance with a suitable buffer zone during construction by the qualified biologist/botanist. Physical barriers shall be strategically placed as directed by the biologist/botanist around any identified special-status plant species, preventing guests from entering these areas. A letter report summarizing the results of the pre-construction plant survey and any placement of physical barriers to protect special-status plants shall be prepared by the biologist/botanist and be submitted to the San Bernardino County Land Use Services Department. If in the unlikely event that avoidance is not feasible, the project applicant shall discuss potential relocation</p>

Impact Statement	Significance	Mitigation Measure
		<p>strategies with applicable regulatory agencies and obtain approval prior to activities that result in impacts.</p> <p><b>MM BIO-2:</b> All work areas shall be visibly flagged or staked prior to construction. Construction activities shall be limited to these approved work areas except with prior authorization from regulatory agencies.</p> <p><b>MM BIO-3:</b> A Worker Environmental Awareness Program (WEAP) shall be implemented to educate all construction personnel of the area's environmental concerns and conditions, including special-status species, and relevant environmental protection measures. The WEAP will constitute the conveyance of environmental concerns and appropriate work practices, including spill prevention, emergency response measures, protection of sensitive resources, and proper implementation of BMPs, to all construction and maintenance personnel. All new workers that arrive after construction has started shall be trained under the WEAP within two days' time.</p>

Impact Statement	Significance	Mitigation Measure
		<p><b>MM BIO-4:</b> All brush, debris, and cleared vegetation shall be removed from the project site and disposed of properly or reused elsewhere on-site in an approved location where it will not wash into any riparian areas.</p> <p><b>MM BIO-5:</b> For Class II streams, defined as those supporting aquatic life other than fish, a buffer of 75 feet (23 meters) on either side of the stream (measured from the high water mark) will be flagged and avoided. For Class III streams, defined as those not supporting aquatic life, a buffer of 25 feet (8 meters) on either side of the stream (measured from the high water mark) will be flagged and avoided. On-site streams are expected to be classified as a combination of Class II and Class III streams.</p> <p><b>MM BIO-6:</b> All trails shall be kept in a maintained state sufficient to clearly determine where the trail lies. Signs and physical barriers shall be strategically placed along the trail, under direction of a qualified biologist, discouraging guests from wandering outside of the trail boundaries.</p>

Impact Statement	Significance	Mitigation Measure
		<p><b>MM BIO-7:</b> A qualified biologist shall conduct a pre-construction clearance survey for special-status wildlife species (including California spotted owl, San Bernardino flying squirrel, and southern rubber boa) on the project site immediately prior to trail creation or construction in new areas. Special-status wildlife shall be avoided by waiting for them to leave an area before working in it. A letter report summarizing the results of the pre-construction clearance survey for special-status wildlife species shall be prepared by the biologist and be submitted to the San Bernardino County Land Use Services Department. If avoidance is not feasible, the project applicant shall consult with CDFW on potential relocation strategies that shall be approved by CDFW prior to initiation of the construction activities that result in impacts. Relocation or any other disturbance to southern rubber boa shall require obtaining CESA Section 2081 Incidental Take Permit from CDFW which will outline conditions to ensure impacts are minimized and fully mitigated.</p>

Impact Statement	Significance	Mitigation Measure
		<p><b>MM BIO-8:</b> A biologist shall be on-site when work (e.g. trail clearing) is conducted in suitable habitat for SRB. All duff, debris, and downed logs in proposed work areas shall be examined for SBR by a qualified biologist no more than 5 days prior to disturbance.</p> <p><b>MM BIO-9:</b> Retain 9 logs per acre of all age and decay classes greater than or equal to 12 inches (31 centimeters) in diameter and 20 feet (6 meters) long. At least 3 of the logs should be Class 1 logs with a minimum diameter of 12 inches (31 centimeters). Half of the logs should be 20-36 inches (51-96 centimeters) in diameter. A biologist shall coordinate where the logs should be placed for maximum wildlife usability. Exceptions will be made in fuel break areas.</p> <p><b>MM BIO-10:</b> All rocky outcrops shall be avoided.</p> <p><b>MM BIO-11:</b> Brush piles for burning or chipping will not be created within 300 feet (92 meters) of rock outcrops and existing logs in rubber boa habitat. If this is not possible, exclusionary fencing will be placed around brush piles to prevent usage by boas prior to burning or</p>

Impact Statement	Significance	Mitigation Measure
		<p>chipping.</p> <p><b>MM BIO-12:</b> Brush piles for burning or chipping will not be created within bald eagle roosts during occupancy.</p> <p><b>MM BIO-13:</b> All construction shall occur outside of January 1-September 15 (this time frame includes both the passerine and raptor nesting season). If construction occurs during this time period, a qualified biologist shall conduct a pre-construction nesting bird clearance survey in all work areas and all areas within 500 feet of the general construction zone. This shall occur no more than one week prior to construction. Active nests shall be given an avoidance buffer, typically 300 feet for non-listed, non-raptor species, and 500 feet for listed and raptor species. This buffer shall remain in place until the young fledge or the nest otherwise becomes inactive, and may be reduced with approval from CDFW and/or USFWS. The nest(s) shall be monitored at least once each week during active construction to determine status. If an established buffer is still causing animal stress or potential</p>

Impact Statement	Significance	Mitigation Measure
		<p>abandonment of nest, work will stop until a biologist can establish a new buffer to ensure no take is incurred. A letter report summarizing the results of the pre-construction nesting bird clearance survey and any active nests and buffer areas shall be prepared by the biologist and submitted to the San Bernardino County Land Use Services Department.</p> <p><b>MM BIO-14:</b> The applicant will retain 10-15 hard snags per 5 acres (minimum of 16 inches/41 centimeters diameter at breast height and 40 feet/12 meters tall). Live and dead oaks that are at least 14 inches (35 centimeters) diameter at breast height will be retained unless they pose falling hazards.</p> <p><b>MM BIO-15:</b> No work will be allowed within 400 meters of known California spotted owl activity areas during the Limited Operating Period (LOP)<sup>2</sup> between February 1 and August 15.</p> <p><b>MM BIO-16:</b> No work will be allowed during the LOP in</p>

<sup>2</sup> The LOP is a term specific to spotted owls. It describes the period during which spotted owls are actively breeding, nesting, and fledging young. It restricts activities in the vicinity of spotted owl activity areas so that breeding and offspring development can proceed in an undisturbed manner.

Impact Statement	Significance	Mitigation Measure
		<p>the entire project area.</p> <p><b>MM BIO-17:</b> If owl surveys have not been conducted, all suitable habitat shall be avoided during the LOP.</p> <p><b>MM BIO-18:</b> Known nest sites will be buffered by 400 meters (as identified by a qualified biologist) and avoided in perpetuity.</p> <p><b>MM BIO-19:</b> Wildlife trees will be marked and avoided by a qualified biologist. All snags in nesting or foraging areas shall be left intact.</p> <p><b>MM BIO-20:</b> In known or suitable nesting areas, percent canopy cover shall not be reduced below 70%. In areas of known or suitable foraging, percent canopy cover shall not be reduced below 50%.</p> <p><b>MM BIO-21:</b> Downed woody debris shall be left at 10-15 tons per acre in nesting and foraging habitat.</p> <p><b>MM BIO-22:</b> All woodrat nests shall be avoided and buffered by 10 feet.</p> <p><b>MM BIO-23:</b> Approximately 10 percent or more of stumps, targeting those showing some level of decomposition, should be left at two to</p>

Impact Statement	Significance	Mitigation Measure
		<p>three feet.</p> <p><b>MM BIO-24:</b> Slash piles should be left in approved areas. Slash piles should be three to four feet high and four to six feet in diameter. There should be two to three slash piles per acre. They should not be burned. Slash piles should be placed approximately 50 feet from roads and houses.</p>
<p><b>Impact 4.4-2:</b> <i>Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?</i></p>	<p>Less than significant with mitigation incorporated.</p>	<p><b>MM BIO-25:</b> Permanent and temporary impacts to drainage feature D-2 (as identified in the Jurisdictional Delineation Report) from the widening of SR-18 shall be mitigated to less than significant levels through off-site compensatory mitigation at a minimum of 1:1 ratio for impacts, as deemed appropriate by USACE, RWQCB, and CDFW through the permitting process, which may include enhancement and restoration of Hooks Creek and Hencks Meadow.</p>
<p><b>Impact 4.4-3:</b> <i>Would the Project have a substantial adverse effect on federally protected wetlands as defined by Clean Water Act Section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</i></p>	<p>Less than significant with mitigation incorporated.</p>	<p>MM Bio-25 above.</p>

Impact Statement	Significance	Mitigation Measure
<i>Impact 4.4-4: Would the Project 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?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.4-5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.4-6: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</i>	No impact.	No mitigation is necessary.

Impact Statement	Significance	Mitigation Measure
<i>Cultural Resources</i>		
<p><b>Impact 4.5-1:</b> <i>Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?</i></p>	<p>Less than significant with mitigation incorporated.</p>	<p><b>MM CR-1</b>    <i>Changes to Historical Resource</i></p> <ul style="list-style-type: none"> <li>• Project activities should be consistent with “plans for rehabilitation to ensure that the undertaking maintains consistency with the Secretary’s Standards for the Treatment of Historic Properties” (36 CFR part 68; see <a href="http://www.nps.gov/tps/standards/rehabilitation/rehab/stand.htm">http://www.nps.gov/tps/standards/rehabilitation/rehab/stand.htm</a>). The Standards are intended to pertain to rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.</li> <li>• Project design should be prepared and applied in consultation with a professional that meets the U.S. Secretary of the Interior Professional Qualification Standards for Historic Architecture (see <a href="http://www.nps.gov/history/local-law/arch_stnds_9.htm">http://www.nps.gov/history/local-law/arch_stnds_9.htm</a>).</li> </ul>
<p><b>Impact 4.5-2:</b> <i>Would the Project cause a substantial adverse change in the significance of an archaeological resource as</i></p>	<p>Less than significant with</p>	<p><b>MM CR-2</b>    <i>Changes to an Archaeological Resource</i></p>

Impact Statement	Significance	Mitigation Measure
<i>defined in CEQA Guidelines § 15064.5?</i>	mitigation incorporated.	<ul style="list-style-type: none"> <li>• An archaeological monitor shall be present during any earthmoving activities proposed within the project site boundaries. The monitor shall work under the direct supervision of a cultural resource professional who meets the Secretary of the Interior’s Professional Qualification Standards for archaeology. The monitor shall be empowered to temporarily halt or redirect construction work in the vicinity of any find until the project archaeologist can evaluate it.</li> <li>• In the event of a new find, salvage excavation and reporting shall be required.</li> </ul>
<b>Impact 4.5-3:</b> <i>Would the Project have a substantial adverse effect on a Tribal Cultural Resource?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.5-4:</b> <i>Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.5-5:</b> <i>Would the Project disturb any human remains, including those interred outside of formal</i>	Less than significant with mitigation incorporated.	<b>MM CR-3</b> Encountering Human Remains <ul style="list-style-type: none"> <li>• If human remains are encountered</li> </ul>

Impact Statement	Significance	Mitigation Measure
<p><i>cemeteries?</i></p>		<p>during the project activities, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately.</p> <ul style="list-style-type: none"> <li>• If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.</li> </ul>

Impact Statement	Significance	Mitigation Measure
<i>Geology, Soils, and Seismicity</i>		
<p><b>Impact 4.6-1:</b> Implementation of the Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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; strong seismic groundshaking; seismic-related ground failure, including liquefaction; or landslides.</p>	<p>Less than significant.</p>	<p>No mitigation necessary.</p>
<p><b>Impact 4.6-2:</b> Implementation of the Project would not result in substantial soil erosion or the loss of topsoil.</p>	<p>Less than significant with mitigation incorporated.</p>	<p><b>MM GEO-1</b> Development and use of new hiking and mountain biking trails as well as use of existing trails shall implement the following avoidance, design, and maintenance measures:</p> <ul style="list-style-type: none"> <li>• Discourage or prohibit off-trail travel through education (information given to guest before they use trails, include in park rules), signage on trails, and strategic placement of boulders, downed timber, split rail fence segments;</li> <li>• Design trails with sustainable grades and avoid fall-line alignments;</li> <li>• When possible, build trails in dry,</li> </ul>

Impact Statement	Significance	Mitigation Measure
		<p>cohesive soils that easily compact and contain a larger percentage of coarse material. These soils better resist erosion by water, wind, or displacement by feet and tires;</p> <ul style="list-style-type: none"> <li>• Minimize trail muddiness by avoiding flat terrain, wet soils, and drainage-bottom locations;</li> <li>• Use grade reversals to remove water from trail treads. Grade reversals are permanent and sustainable. When they are designed into a trail's alignment they remain 100 percent effective and require minimal maintenance;</li> <li>• If it is not possible to install proper drainage on a trail, consider rerouting trail sections that are most problematic, or possibly hardening the trail;</li> <li>• In flatter areas, elevate and crown trails to prevent muddiness, or add a gravel/soil mixture in low spots;</li> <li>• Integrating ramps where turns or change in direction are likely to occur on trails. The trails would be more</li> </ul>

Impact Statement	Significance	Mitigation Measure
		<p>vulnerable to erosion during turns because of decrease in speed and possible skidding, thus adding ramps would decrease erosion; and</p> <ul style="list-style-type: none"> <li>Temporarily close trails that are prone to muddiness during rainy or snowmelt seasons.</li> </ul>
<p><b>Impact 4.6-3:</b> <i>The Project site is not 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.</i></p>	<p>Less than significant.</p>	<p>No mitigation necessary.</p>
<p><b>Impact 4.6-4:</b> <i>Would the Project 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?</i></p>	<p>Less than significant.</p>	<p>No mitigation is necessary.</p>
<p><b>Impact 4.6-5:</b> <i>Would the Project 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?</i></p>	<p>Less than significant.</p>	<p>No mitigation is necessary.</p>

Impact Statement	Significance	Mitigation Measure
<b><i>Greenhouse Gas Analysis</i></b>		
<b><i>Impact 4.7-1:</i></b> Implementation of the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Less than significant.	No mitigation is necessary.
<b><i>Impact 4.7-2:</i></b> Implementation of the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than significant.	No mitigation is necessary.
<b><i>Impact 4.7-3:</i></b> Greenhouse gas emissions generated by the proposed project, combined with other related cumulative projects, could have a significant impact on global climate change.	Less than significant.	No mitigation is necessary.
<b><i>Impact 4.7-4:</i></b> The proposed project, combined with other related cumulative projects, would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than significant.	No mitigation is necessary.
<b><i>Hazards and Hazardous Materials</i></b>		
<b><i>Impact 4.8-1:</i></b> Implementation of the Project would not involve the routine transport, storage, use and disposal of hazardous materials during.	Less than significant.	No mitigation is necessary.

Impact Statement	Significance	Mitigation Measure
<i>Impact 4.8-2: Implementation of the Project would not 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.</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.8-3: Implementation of the Project would/would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses.</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.8-4: Implementation of the Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment.</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.8-5: Implementation of the Project is not located within an airport land use plan or within two miles of a public airport or public use airport where such a plan has not been adopted.</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.8-6: Implementation of the Project is not located within the vicinity of a private airstrip.</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.8-7: Implementation of the Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.8-8: Would the Project expose people or</i>	Less than significant with	<b>MM HAZ-1</b> No smoking will be strictly enforced on the

Impact Statement	Significance	Mitigation Measure
<p><i>structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas and where residences are intermixed with wildlands.</i></p>	<p>incorporation of mitigation.</p>	<p>property, including but not limited to the campground site and Santa’s Village.</p> <p><b>MM HAZ-2</b> There will be no wood burning fires that create windblown embers. The campground site will include a few community fire rings that are supplied by natural gas lines extended from Santa’s Village to the campground. The fire rings will be monitored during use.</p>
<p><b>Hydrology and Water Quality</b></p>		
<p><b>Impact 4.9-1:</b> <i>Implementation of the Project would not violate any water quality standards or waste discharge requirements.</i></p>	<p>Less than significant.</p>	<p>No mitigation is necessary.</p>
<p><b>Impact 4.9-2:</b> <i>Implementation of the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new deficit in aquifer volume or a lowering of the local groundwater table level.</i></p>	<p>Less than significant.</p>	<p>No mitigation is necessary.</p>
<p><b>Impact 4.9-3:</b> <i>Implementation of the Project would not 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 which would result in substantial erosion or siltation on- or off-site.</i></p>	<p>Less than significant with implementation of mitigation measure.</p>	<p><b>MM HYDRO-1</b> Prior to pumping of groundwater to support operational use of SkyPark at Santa’s Village, a groundwater and surface water monitoring plan shall be developed and implemented and shall include:</p>

Impact Statement	Significance	Mitigation Measure
		<ul style="list-style-type: none"> <li>• Installation of a stream gage on Hooks Creek at a location downstream of the Project boundary.</li> <li>• Baseline monitoring of groundwater levels and Hooks Creek streamflow rates before the Project improvements are constructed. Groundwater monitoring shall be conducted on a monthly basis. Stream gage measurements shall be collected continuously using recording equipment that is downloaded quarterly.</li> <li>• On-going monitoring of groundwater levels and Hooks Creek streamflow rates to provide the data necessary to assess the role of Project pumping on changes in stream flow rates (if any).</li> <li>• Baseline and on-going monitoring of groundwater levels and Hooks Creek streamflow rates will be submitted to the Lahontan Regional Water Quality Control Board on an annual basis.</li> </ul>
<p><b>Impact 4.9-4:</b> <i>Implementation of the Project would not substantially alter the existing drainage pattern of the site or</i></p>	<p>Less than significant.</p>	<p>No mitigation is necessary.</p>

Impact Statement	Significance	Mitigation Measure
<i>area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.</i>		
<b>Impact 4.9-5:</b> <i>Implementation of the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.9-6:</b> <i>Implementation of the Project would not otherwise substantially degrade water quality.</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.9-7:</b> <i>Implementation of the Project would not place housing within a 100-year flood hazard area as mapped on the County’s FEMA Flood Zone Map.</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.9-8:</b> <i>Implementation of the Project would not 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.</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.9-9:</b> <i>Implementation of the Project would not result in inundation by seiche, tsunami, or mudflow.</i>	Less than significant.	No mitigation is necessary.
<b>Land Use</b>		
<b>Impact 4.10-1:</b> <i>Would the Project physically divide an established community?</i>	No impact.	No mitigation is necessary.
<b>Impact 4.10-2:</b> <i>Would the Project conflict with any applicable land use plan, policy, or regulation of an agency</i>	Less than significant.	No mitigation is necessary.

Impact Statement	Significance	Mitigation Measure
<i>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?</i>		
<b>Impact 4.10-3:</b> <i>Would the Project conflict with any applicable habitat conservation plan or natural community conservation plan?</i>	No impact.	No mitigation is necessary.
<b>Mineral Resources</b>		
<b>Impact 4.11-1:</b> <i>Result in the loss of availability of a known mineral source that would be of value to the region and the residents of the state?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.11-2:</b> <i>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?</i>	Less than significant.	No mitigation is necessary.
<b>Noise</b>		
<b>Impact 4.12-1:</b> <i>Grading and construction associated with project implementation could result in significant temporary noise impacts to nearby noise sensitive receptors.</i>	Less than significant with incorporation of mitigation.	<b>MM NOI-1</b> Prior to Grading Permit issuance, the Project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive receptors (e.g., residential uses) and includes specific noise management measures to be included into Project plans and specifications subject to review and approval by the San Bernardino

Impact Statement	Significance	Mitigation Measure
		<p>Planning Department. The Project applicant shall demonstrate, to the satisfaction of the San Bernardino County Planning Director that the Project complies with the following:</p> <ul style="list-style-type: none"> <li>• Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.</li> <li>• The County shall require that the contractor maintain and tune-up all construction equipment to minimize noise emissions.</li> <li>• Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.</li> <li>• Stationary equipment shall be placed so as to maintain the greatest possible distance to the sensitive receptors.</li> <li>• A qualified "Noise Disturbance Coordinator" will be retained amongst the construction crew who shall be</li> </ul>

Impact Statement	Significance	Mitigation Measure
		<p>responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the County within 24 hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, malfunctioning muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the San Bernardino County Planning Department.</p> <ul style="list-style-type: none"> <li>• Construction activities shall take place during weekdays between the hours of 7:00 a.m. and 7:00 p.m., and are prohibited on Sundays and Federal holidays.</li> </ul>
<p><i>Impact 4.12-2: Implementation of the proposed Project would result in significant vibration impacts to nearby sensitive receptors.</i></p>	<p>Less than significant.</p>	<p>No mitigation necessary.</p>

Impact Statement	Significance	Mitigation Measure
<i>Impact 4.12-3: Traffic generated by the proposed Project would not significantly contribute to existing traffic noise in the area or exceed the County's and City's established standards.</i>	Less than significant.	No mitigation necessary.
<i>Impact 4.12-4: The proposed Project would not result in a significant increase in long-term stationary ambient noise levels.</i>	Less than significant.	No mitigation necessary.
<i>Impact 4.12-5: The proposed Project would not result in significant impacts related to aircraft noise.</i>	Less than significant.	No mitigation is necessary.
<b>Population and Housing</b>		
<i>Impact 4.13-1: 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)?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.13-2: Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</i>	No impact.	No mitigation is necessary.
<i>Impact 4.13-3: Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</i>	Less than significant.	No mitigation is necessary.

Impact Statement	Significance	Mitigation Measure
<b>Public Services</b>		
<b>Impact 4.14-1:</b> <i>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: fire protection, police protection, schools, parks, or other public facilities?</i>	Less than significant.	No mitigation is necessary.
<b>Recreation</b>		
<b>Impact 4.15-1:</b> <i>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?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.15-2:</b> <i>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?</i>	Less than significant.	No mitigation is necessary.
<b>Transportation/Traffic</b>		
<b>Impact 4.16-1:</b> <i>Would the project conflict with an applicable</i>	Less than significant with	<b>MM TRA-1</b> As part of the street improvement plans, the

Impact Statement	Significance	Mitigation Measure
<p><i>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?</i></p>	<p>mitigation incorporated.</p>	<p>Project Proponent shall design a traffic signal at the intersection of State Route 18 and the project access. It shall include the following:</p> <ul style="list-style-type: none"> <li>• The north and south legs shall be designed with 36-foot roadways to accommodate two outbound lanes (one shared through/right turn lane and one left turn lane) and one inbound lane.</li> <li>• Provide for pedestrian indications and crosswalks at the intersection.</li> <li>• Provide 432.5 foot westbound and eastbound left turn lanes on State Route 18.</li> <li>• Advance signal ahead flashing beacons required by Caltrans for both directions on State Route 18.</li> </ul>
<p><b>Impact 4.16-2:</b> <i>Would the project 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?</i></p>	<p>No impact.</p>	<p>No mitigation is necessary.</p>

Impact Statement	Significance	Mitigation Measure
<i>Impact 4.16-3: Would the project 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?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.16-4: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.16-5: Would the project result in inadequate emergency access?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.16-6: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</i>	Less than significant.	No mitigation is necessary.
<b>Utilities</b>		
<i>Impact 4.17-1: Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.17-2: Would the project 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?</i>	Less than significant.	No mitigation is necessary.
<i>Impact 4.17-3: Would the project require or result in the construction of new stormwater drainage facilities or</i>	Less than significant.	No mitigation is necessary.

Impact Statement	Significance	Mitigation Measure
<i>expansion of existing facilities, the construction of which could cause significant environmental effects?</i>		
<b>Impact 4.17-4:</b> <i>Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.17-5:</b> <i>Would the project 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?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.17-6:</b> <i>Would the project be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?</i>	Less than significant.	No mitigation is necessary.
<b>Impact 4.17-7:</b> <i>Would the Project comply with federal, state, and local statutes and regulations related to solid waste?</i>	Less than significant.	No mitigation is necessary.

## Section 2.0 INTRODUCTION

SKYPARK AT SANTA'S VILLAGE  
DRAFT ENVIRONMENTAL IMPACT REPORT

## **2.0 INTRODUCTION**

This Draft Environmental Impact Report (Draft EIR) addresses the environmental effects of the proposed SkyPark at Santa's Village Project. The California Environmental Quality Act (CEQA) requires that government agencies consider the environmental consequences of projects over which they have discretionary approval authority. The Environmental Impact Report (EIR) is a document that provides both government decision-makers and the public with an analysis of the potential environmental consequences of a proposed project in their jurisdiction.

This Draft EIR has been prepared in accordance with the requirements of CEQA as set forth in Public Resources Code Section 21000 et seq., the CEQA Guidelines, and 14 California Code of Regulations Section 15000 et seq. (CEQA Guidelines). The County of San Bernardino (County) is the lead agency on the proposed Project and has reviewed and revised all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable County technical personnel from other departments and review of all technical subconsultant reports.

## **2.1 PROPOSED PROJECT**

The proposed Project requires a General Plan Amendment to change the Official Land Use District from Lake Arrowhead/ Special Development - Residential (LA/SD-RES) and Lake Arrowhead/ Single Residential-14,000 Square Foot Minimum lot size (LA/RS-14M) to Lake Arrowhead/ Rural Commercial (LA/CR) on 152.92 Acres. The proposed project also includes an amendment to the Lake Arrowhead Community Plan and the Circulation Element of the County of San Bernardino General Plan. An amendment to the Lake Arrowhead Community Plan Policy LA/CI 1.14 is proposed to provide additional clarification and specificity for implementation while retaining the initial intent of the policy.

The proposed project includes a Conditional Use Permit (CUP) to re-establish an Outdoor Commercial Entertainment Center which includes an Amusement Park, Campground, Meadow/Wetland Rehabilitation, Restaurants, Bar, Wedding & Reception Facility, Retail, Trails, Recreational Activities and other Accessory Uses on 152.92 Acres.

The proposed Project includes the redevelopment and re-use of the existing Santa's Village attraction. The proposed Project would include the development of a mixed-use adventure park that would include a variety of activities and services. Nineteen original buildings exist on the project site totaling 23,389 square feet. The exteriors of these original buildings would not be drastically altered. Rather, the exterior of the buildings would be restored (re-painted, repaired). The interiors would be re-developed in order to achieve a variety of desired uses. None of the buildings would be demolished. The southern portion is currently undeveloped and would be developed into a campground that would accommodate both Recreational vehicles (RV's) and tent camping for visitors. The proposed Project is described in greater detail in Section 3.0, *Project Description*. The CUP, in conjunction with this EIR, will go forward for approval from both the County's Planning Commission and Board of Supervisors.

The analysis contained in this Draft EIR compares impacts associated with implementation of the proposed Project to current existing conditions.

## **2.2 EIR SCOPE, ISSUES, CONCERNS**

To determine the scope of this Draft EIR, the County prepared and distributed a Notice of Preparation (NOP) for the proposed Project. Baseline conditions from which this EIR evaluates impacts were established at the time the NOP was released on August 27, 2015, and identifies that the Draft EIR will address environmental topics identified in Appendix G of the CEQA Guidelines.

The NOP distributed on August 27, 2015, identified the following environmental issues to be addressed in the Draft EIR:

- Aesthetics, Light, and Glare
- Agriculture and Forestry
- 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 and Circulation
- Utilities

A total of 11 comment letters were received during the NOP comment period. Comment letters were received from both the general public and public agencies. Overall issues raised during the NOP review period in submitted letters and at the public scoping meeting include the following:

- Aesthetics, operating hours, light use and light pattern impacts, noise and light impacts on nearby residences and adjacent forest, SR-18 scenic byway and viewshed;
- Air quality from additional auto and bus traffic;
- Wildlife migration and wildlife corridors;
- Threatened and endangered species, including southern rubber boa, flying squirrel and the spotted owl;
- Water requirements, water supply reliability and fire flow;
- Erosion and watershed protection from existing and proposed trails;
- Risk of wildfires and firefighting capacity;
- Potential growth inducement;
- Site access and evacuation safety;
- Water quality and hydrology of Hooks Creek, a headwaters stream in the Upper Mojave River; and
- Construction and post-construction storm water management practices.

This Draft EIR has been prepared at the Project-level under CEQA Guidelines Section 15162 to assess and document the environmental impacts of the proposed Project. This Draft EIR serves as the primary environmental compliance document for entitlement decisions regarding these components of the proposed Project by the County and the other regulatory jurisdictions.

### **INCORPORATION BY REFERENCE**

In accordance with CEQA Guidelines Section 15150, this Draft EIR incorporates by reference the following documents (available for review at the San Bernardino County Planning Department, located at 385 North Arrowhead Avenue, San Bernardino, CA 92415; or online at [www.sbcounty.gov](http://www.sbcounty.gov)):

San Bernardino County General Plan (2007). The County's General Plan is a long-range policy-planning document that defines the framework by which the County's physical and economic resources are to be managed over time. The goals and policies contained in the General Plan are provided to guide the County's decision-makers. The seven State-mandated elements are included in the General Plan, including Land Use, Circulation, Housing, Conservation, Open Space, Safety, and Noise.

Lake Arrowhead Community Plan (2007). The Community Plan was prepared to act as a guide for development and future use of land to promote and preserve the character and independent identity of the separate communities within the Lake Arrowhead area. The Community Plan outlines how the County will manage and address growth within the area through goals and policies set forth within the Community Plan.

## **2.3 ENVIRONMENTAL REVIEW PROCESS**

The Draft EIR has been prepared in accordance with CEQA to assess the environmental effects associated with the implementation of the proposed Project, as well as anticipated future discretionary actions and approvals. There are five main objectives of this document as established by CEQA:

1. To disclose to decision-makers and the public any significant environmental effects of proposed activities;
2. To identify ways to avoid or reduce environmental damage;
3. To disclose to the public reasons for agency approval of projects with any significant environmental effects;
4. To foster interagency coordination in the review of projects; and
5. To enhance public participation in the planning process.

This Draft EIR, with an accompanying Notice of Availability/ Completion, is being circulated to the State Clearinghouse, trustee agencies, responsible agencies, other government agencies, and interested members of the public for a 45-day review period as required by CEQA. The review period for this Draft EIR will begin the day the

document is released for public review and will end 45-calendar days later. During this period, public agencies and members of the public may provide written comments on the analysis and content of the Draft EIR. In reviewing a Draft EIR, readers should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and on ways in which the significant effects of the proposed Project might be avoided or mitigated.

Following the close of the public comment period, a Final EIR will be prepared to respond to all substantive comments related to environmental issues surrounding the proposed Project. The Final EIR will be available prior to Planning Commission and Board of Supervisors public hearings to consider this EIR and the proposed Project.

Concurrent with the County's consideration of the Final EIR, it will also consider the merits of the proposed Project itself. This consideration may render a request to revise the proposed Project, or an approval or denial. If the proposed Project is approved, the County may require mitigation measures specified in this Draft EIR as conditions of proposed Project approval. Alternatively, the County could require other mitigation measures deemed to be effective mitigations for the identified impacts, or it could find that the mitigation measures cannot be feasibly implemented. For any identified significant impacts for which no mitigation measure is feasible, or where mitigation would not reduce the impact to a less than significant level, the County will be required to adopt a finding that the impacts are considered acceptable because specific overriding considerations indicate that the proposed Project's benefits outweigh the impacts in question.

## 2.4 REPORT ORGANIZATION

The Draft EIR is organized into ten Sections, described below:

- **Section 1. Executive Summary.** Summarizes the description and background of the proposed Project, addresses the format of this Draft EIR, discusses alternatives, and the potential environmental impacts and any mitigation measures identified for the proposed Project.

- **Section 2. Introduction and Purpose.** Describes the purpose of the Draft EIR, background of the proposed Project, the NOP, the use of incorporation by reference, and the Final EIR certification.
- **Section 3. Project Description.** Describes the proposed Project, the objectives of the proposed Project, the proposed Project Area and location, approvals anticipated to be included as part of the proposed Project, the necessary environmental clearances for the proposed Project, and the intended uses of the EIR.
- **Section 4. Environmental Analysis.** Provides a description of the thresholds used for each parameter analyzed to determine if a significant impact would occur, the methodology to identify and evaluate the potential impacts of the proposed Project, the environmental setting, the potential adverse and beneficial effects of the proposed Project, the level of impact significance before any mitigation, the mitigation measures, the level of significance of the adverse impacts of the proposed Project after mitigation is incorporated, and any potential cumulative impacts associated with the proposed Project related to existing, approved, or proposed development in the area.
- **Section 5. Other CEQA Required Topics.** Summarizes the significant and unavoidable impacts, energy conservation, and significant irreversible environmental changes.
- **Section 6. Effects Found Not to Be Significant.** Summarizes effects found not to be significant or less than significant, or less than significant with mitigation based on information contained in Section 4.
- **Section 7. Growth Inducing Impacts.** Analyzes the potential environmental consequences of the foreseeable growth and development that could be induced by implementation of the proposed Project.
- **Section 8. Alternatives to the Proposed Project.** Analyzes any alternatives to the proposed Project and their potential environmental effects.

- **Section 9. References.** Identifies reference resources utilized for the EIR.
- **Section 10. Organizations and Persons Consulted.** Identifies the lead agency, preparers of the EIR, and all Federal, State, and local agencies, and other organizations, and individuals consulted during the preparation of the EIR.

Table 2.0-1, *CEQA Required Sections and Location in Draft EIR*, depicts the sections of the Draft EIR that are required and their location.

**Table 2.0-1: CEQA Required Sections and Location in Draft EIR**

Required EIR Section	Section
Table of Contents (Section 15122)	Same
Summary (Section 15123)	Section 1
Introduction	Section 2
Project Description (Section 15124)	Section 3
Environmental Setting (Section 15125)	Section 4
Significant Environmental Effects of the Proposed Project (Section 15126(a))	Section 4
Significant Unavoidable Environmental Effects of the Proposed Project (Section 15126(b))	Section 5
Significant Irreversible Environmental Changes of the Proposed Project (Section 15126(c))	Section 5
Growth-Inducing Impact of the Proposed Project (Section 15126 (d))	Section 7
Mitigation Measures (Section 15126 (e))	Section 4
Alternatives to the Proposed Project (Section 15126(f))	Section 8
Effects Found Not to Be Significant (Section 15128)	Section 6
Organizations and Persons Consulted (Section 15129)	Section 10
Cumulative Impacts (Section 15130)	Section 4
Technical Appendices and other materials, including the Initial Study, Notice of Preparation, and comment Letters	Appendices

Based on significance criteria, the effects of the proposed Project have been categorized as either “less than significant” or “potentially significant.” Mitigation measures are recommended for potentially significant impacts, to avoid or lessen impacts. In the event the proposed Project results in significant impacts even after implementation of all feasible mitigation measures, the decision-makers are able to approve a proposed Project based on a Statement of Overriding Considerations. This determination would require the decision-makers to provide a discussion of how the benefits of the proposed Project

outweigh identified unavoidable impacts. The CEQA Guidelines provide in part the following:

- a. CEQA requires that the decision-maker balance the benefits of a proposed Project against its unavoidable environmental risks in determining whether to approve the Project. If the benefits of the Project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."
- b. Where the decision of the public agency allows the occurrence of significant effects that are identified in the Final EIR but are not mitigated, the agency must state in writing the reasons to support its action based on the Final EIR and/or other information in the record. This statement may be necessary if the agency also makes the finding under Section 15091 (a)(2) or (a)(3) of the CEQA Guidelines.
- c. If an agency makes a Statement of Overriding Considerations, the statement should be included in the record of the Project approval and should be mentioned in the Notice of Determination (Section 15093 of the CEQA Guidelines).

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# Section 3.0 PROJECT DESCRIPTION

SKYPARK AT SANTA'S VILLAGE  
DRAFT ENVIRONMENTAL IMPACT REPORT

### **3.0 PROJECT DESCRIPTION**

The following Project Description is provided in conformance with CEQA Guidelines Section 15124. It discusses the geographic setting, Project location, Project setting, current County land use and official land use districts, Project objectives, and discretionary actions required to implement the Project. This information will be the basis for analyzing the Project's impacts on the existing physical environment in Chapter 4 of this EIR.

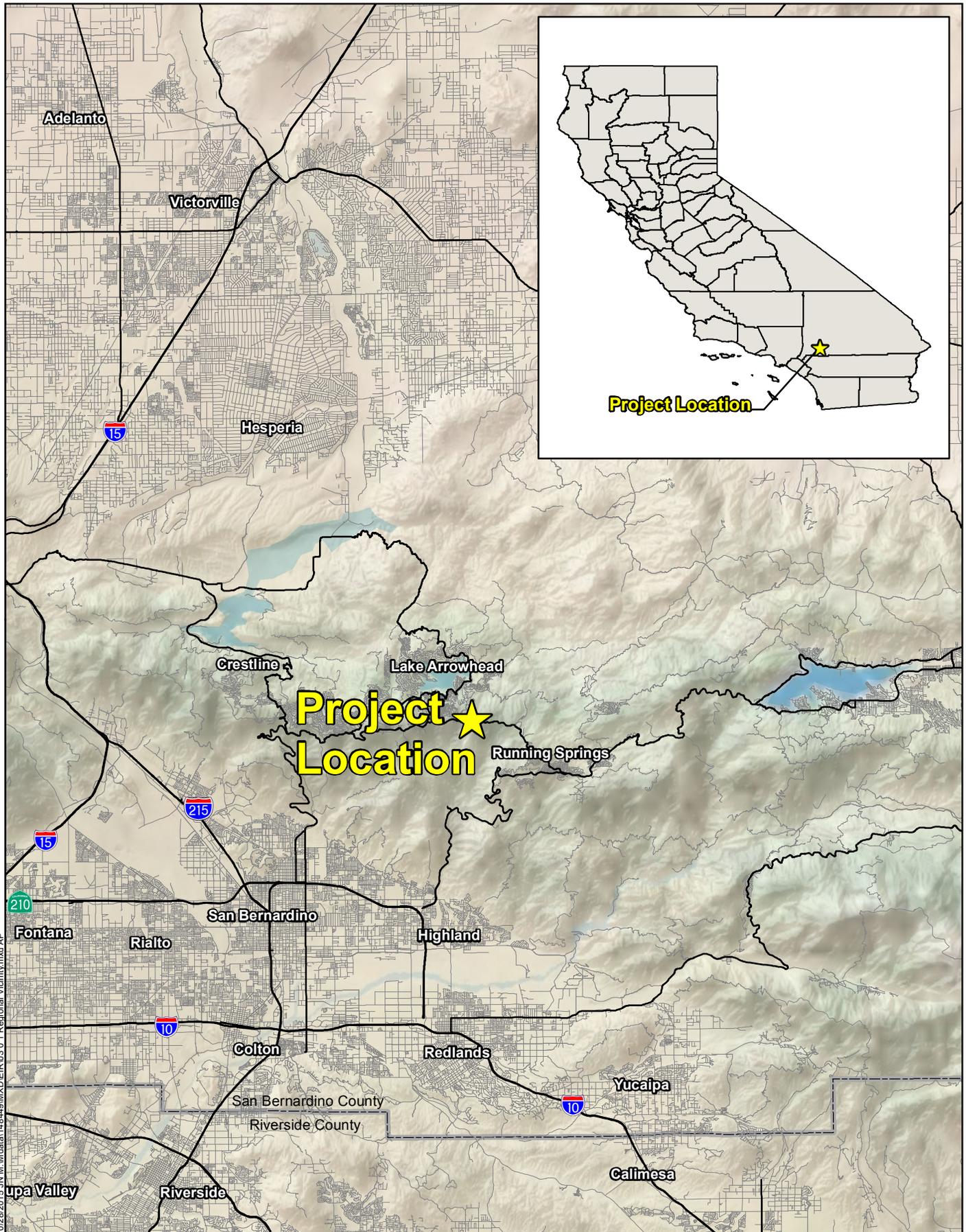
#### **3.1 PROJECT LOCATION AND SURROUNDING LAND USES**

##### REGIONAL LOCATION

The project site is located on the north and south sides of State Route (SR-18), approximately one-half mile east of the intersection of SR-18 and Kuffel Canyon Road in the unincorporated San Bernardino Mountain community of Skyforest. (Refer to Exhibit 3.0-1, *Regional Vicinity Map* & Exhibit 3.0-2, *Property Boundary Map*). The project site includes the now closed Santa's Village attraction.

The proposed Project is located in the Lake Arrowhead Special/Development Residential (LA/SD-RES) the Lake Arrowhead/Single Residential 14,000 Square Foot Minimum lot size (LA/RS-14M) Land Use Districts. The site is also located within the Fire Safety (FS1) Overlay and portions of the site on the south are located within the Moderate-High Geologic Hazard Overlay District.

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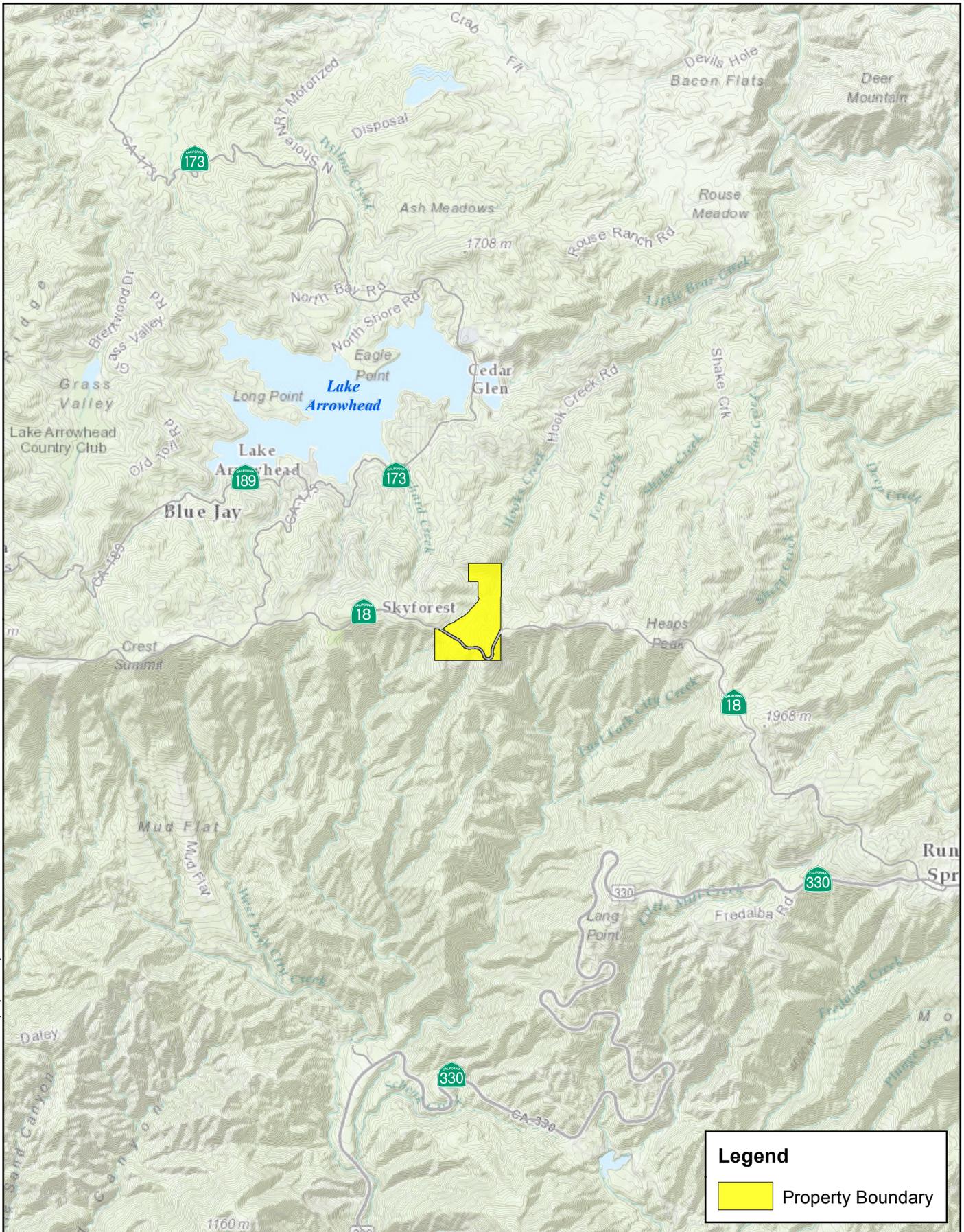
SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT  
**Regional Vicinity**



Source: ESRI Relief Map, National Highway Planning Network

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SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT  
**Property Boundary**

Exhibit 3.0-2

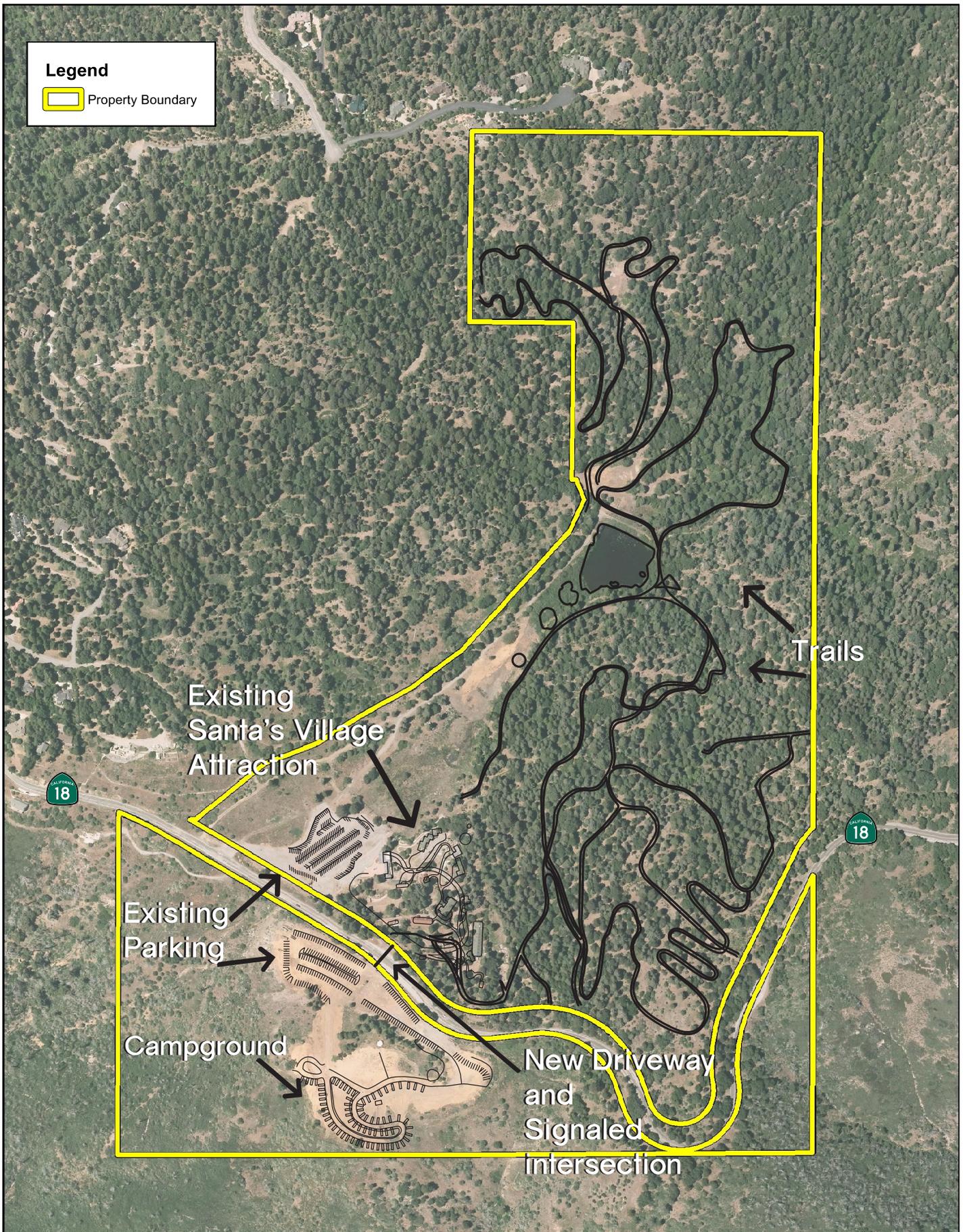


**Michael Baker**  
INTERNATIONAL



Source: San Bernardino County, USGS, ESRI World Topographic Map

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SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT



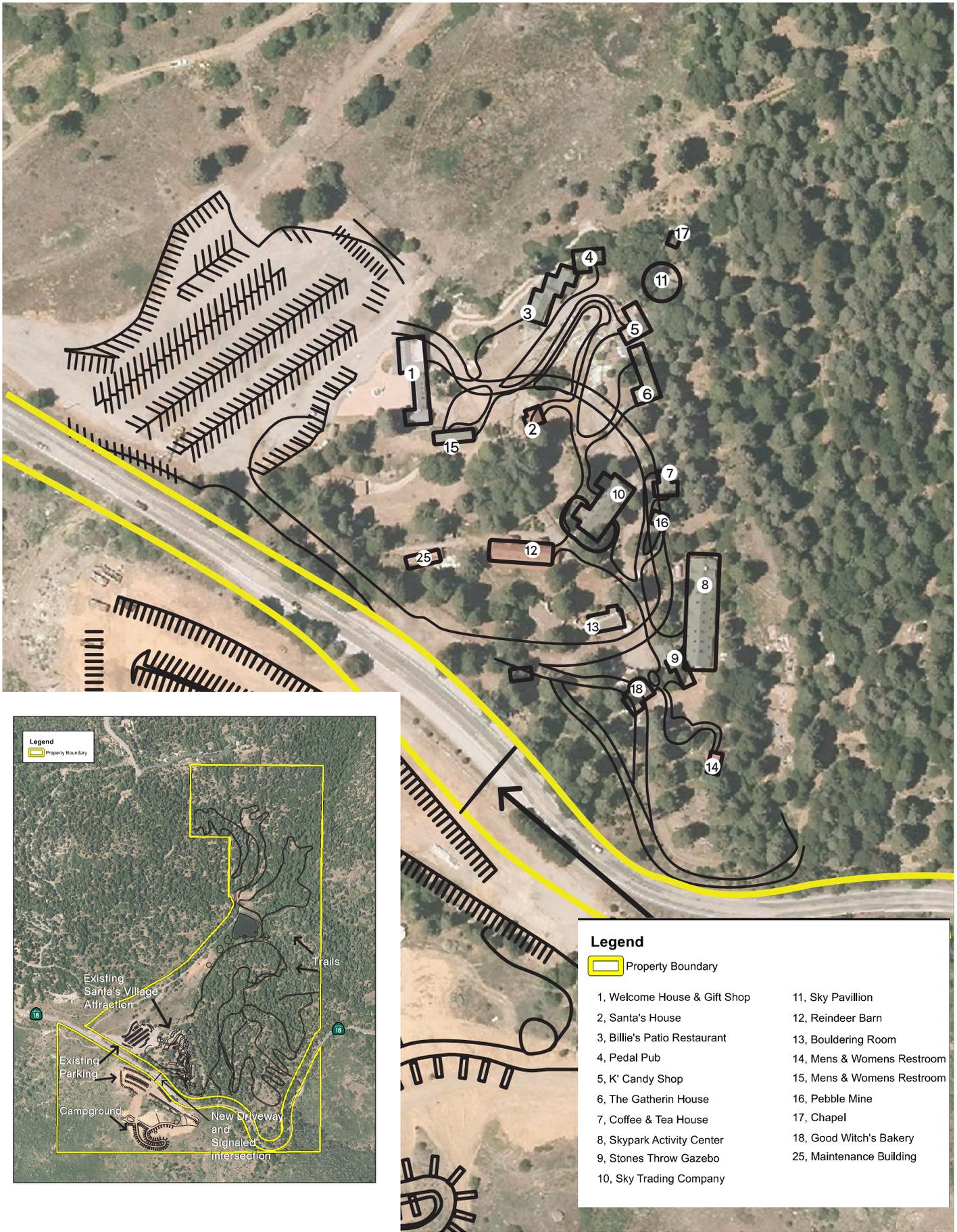
**Michael Baker**  
 INTERNATIONAL



Source: San Bernardino County, Eagle Aerial 2013

**SkyPark at Santa's Village Site Plan**

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- Legend**
- Property Boundary
- |                              |                            |
|------------------------------|----------------------------|
| 1, Welcome House & Gift Shop | 11, Sky Pavilion           |
| 2, Santa's House             | 12, Reindeer Barn          |
| 3, Billie's Patio Restaurant | 13, Boulderling Room       |
| 4, Pedal Pub                 | 14, Mens & Womens Restroom |
| 5, K' Candy Shop             | 15, Mens & Womens Restroom |
| 6, The Gatherin House        | 16, Pebble Mine            |
| 7, Coffee & Tea House        | 17, Chapel                 |
| 8, Skypark Activity Center   | 18, Good Witch's Bakery    |
| 9, Stones Throw Gazebo       | 25, Maintenance Building   |
| 10, Sky Trading Company      |                            |

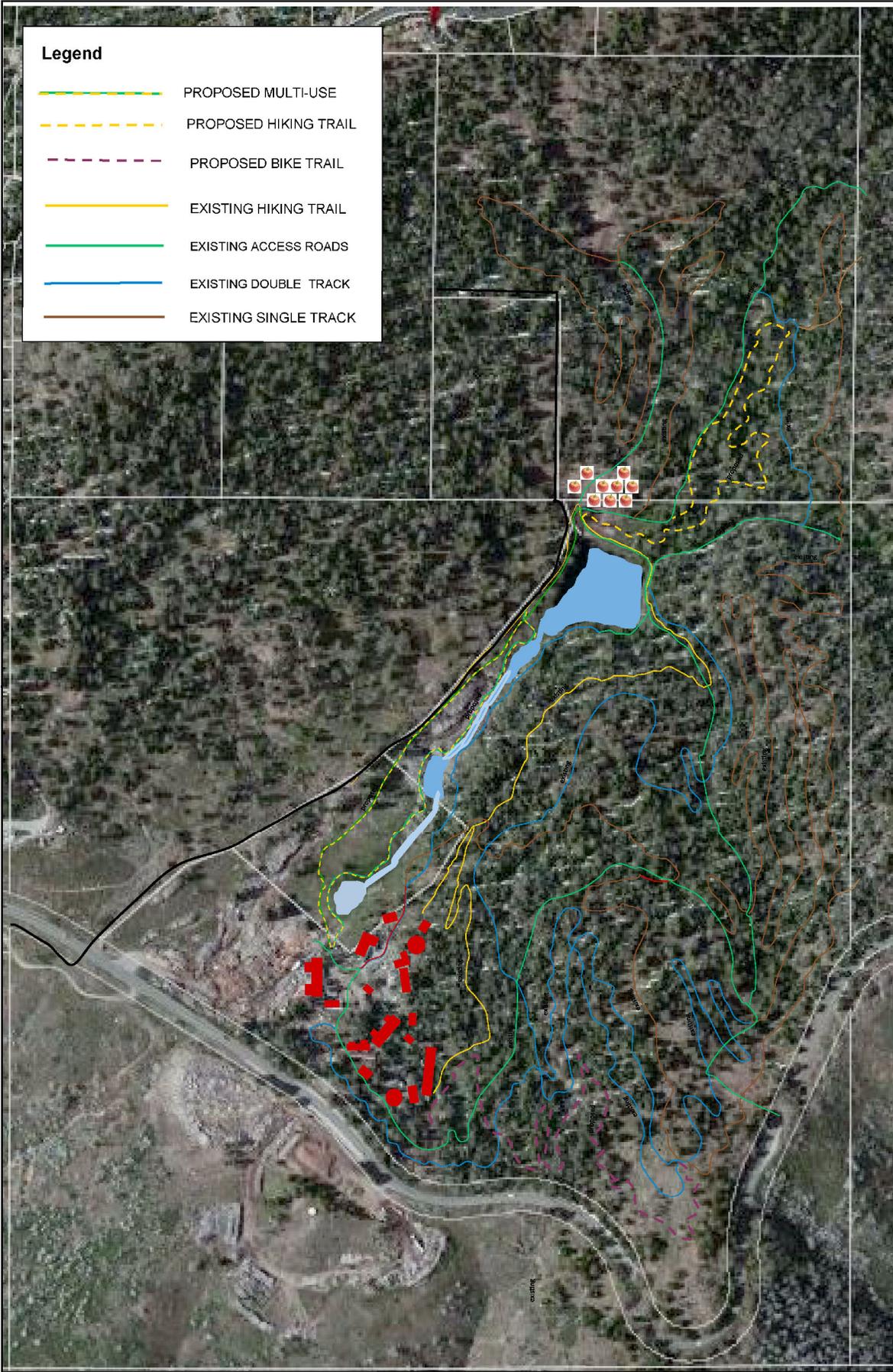
SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT

Detailed Site Plan



Source: San Bernardino County, Eagle Aerial 2013

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SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT

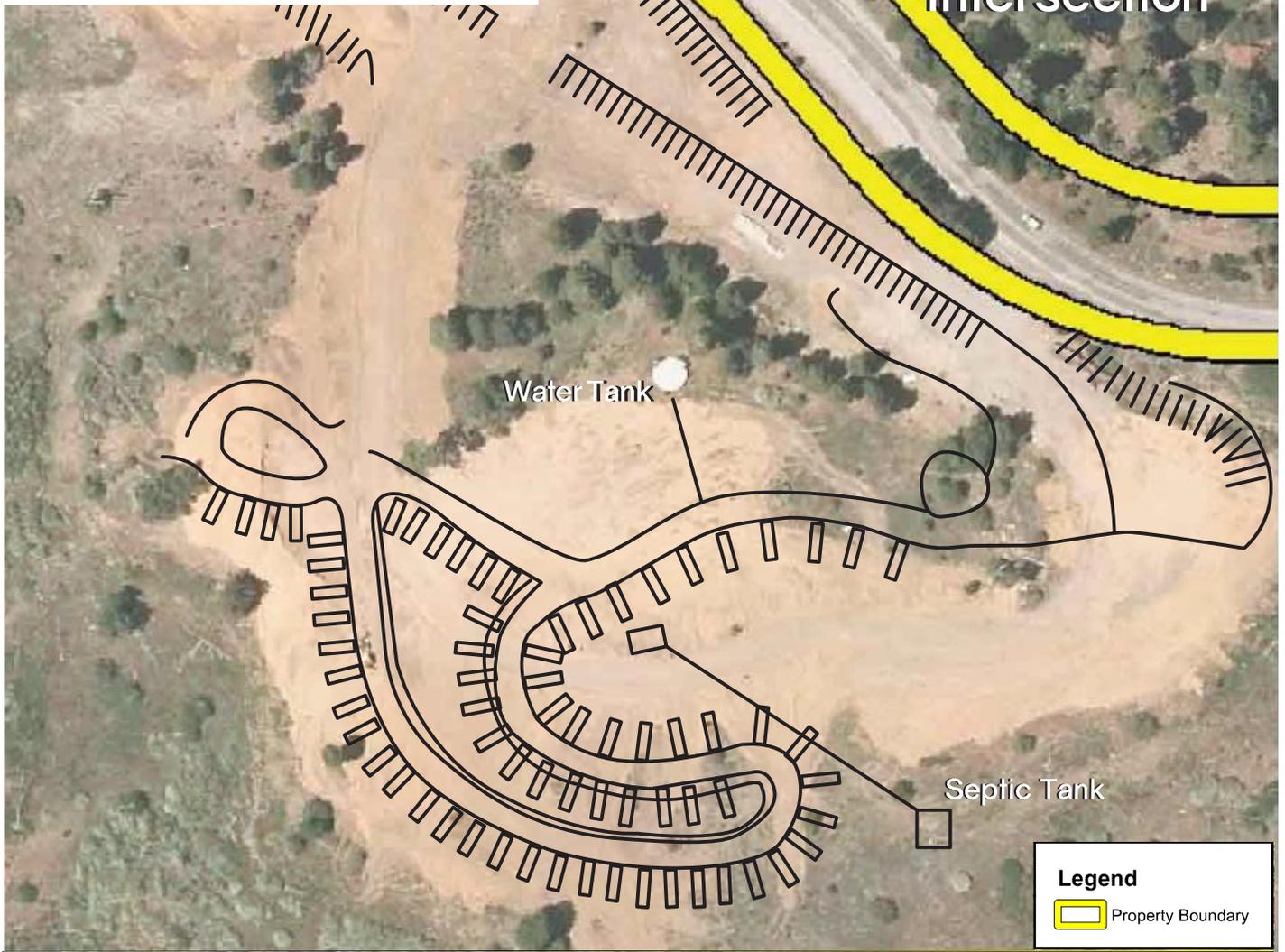
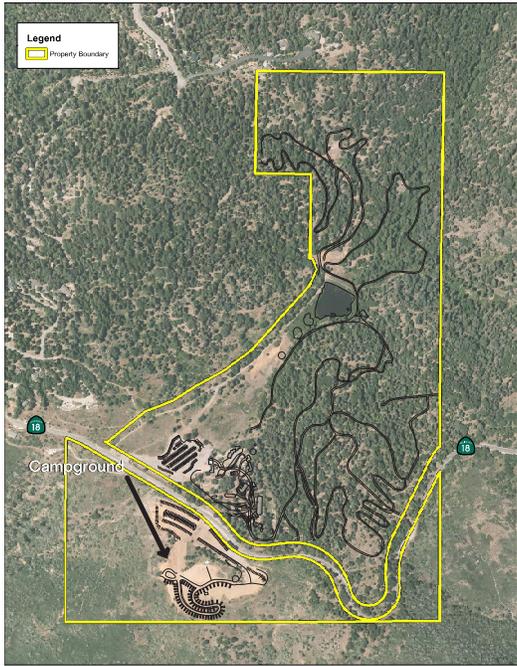
Trail Plan

Exhibit 3.0-5



Source: Sky Park at Santa's Village Trail Plan

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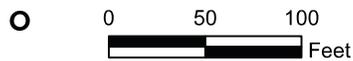


SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT

Campground Site Plan



**Michael Baker**  
 INTERNATIONAL



Source: San Bernardino County, Eagle Aerial 2013

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# Conservation Plan

Date: 7/10/2015

Customer(s): SKY PARK SANTA'S VILLAGE LLC  
 District: Inland Empire RCD  
 Approximate Acres: 233.76

Field Office: Redlands  
 Agency: USDA-NRCS  
 Assisted By: KIMBERLY LARY

Legend		
Practices (points)	Practices (lines)	Practices (polygons)
Practice name	Practice name	Practice name
Structures for Wildlife	Hedgerow Planting	Herbaceous Weed Control
Water and Sediment Control Basin	Lined Waterway or Outlet	Obstruction Removal
	Streambank and Shoreline Protection	Conspian



5/23/2016 JN M:\data\148449M\XD\EIR\03 0-7 Meadow Conservation Plan.mxd



Source: USDA

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**Legend**

 Property Boundary

**Easements**

 10' Edison Power Pole Easement

 Edison and Gas Easment

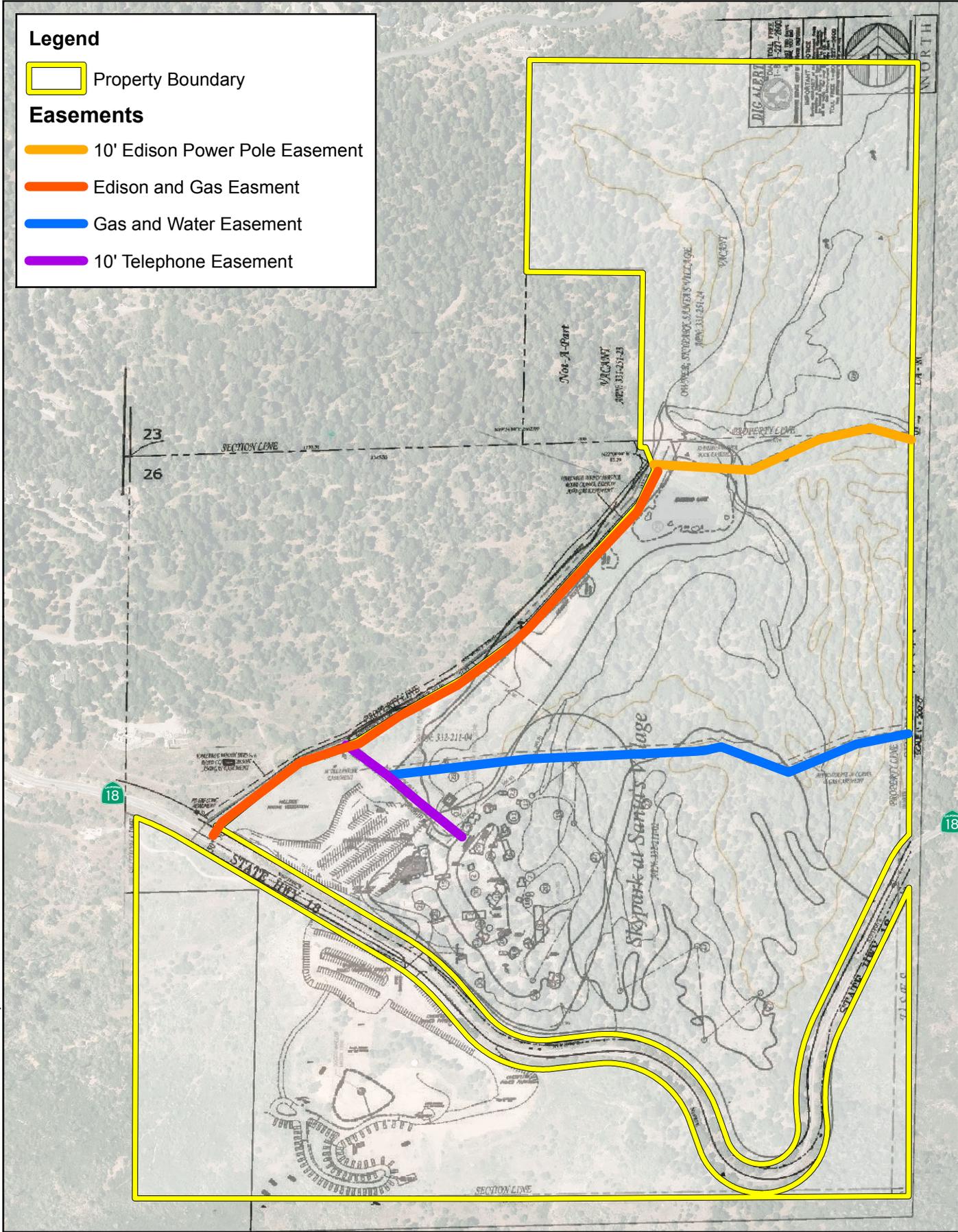
 Gas and Water Easement

 10' Telephone Easement

**BIG ALERT**  
 CALL FREE 1-800-277-2860  
 24 HOURS A DAY  
 7 DAYS A WEEK  
 WE'LL FIND YOU THE BEST PRICE  
 AND WE'LL BEAT IT!  
 IF YOU FIND A BETTER PRICE  
 WE'LL GIVE YOU \$100!  
 TOTAL PRICE: \$100-1000



NORTH



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SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT

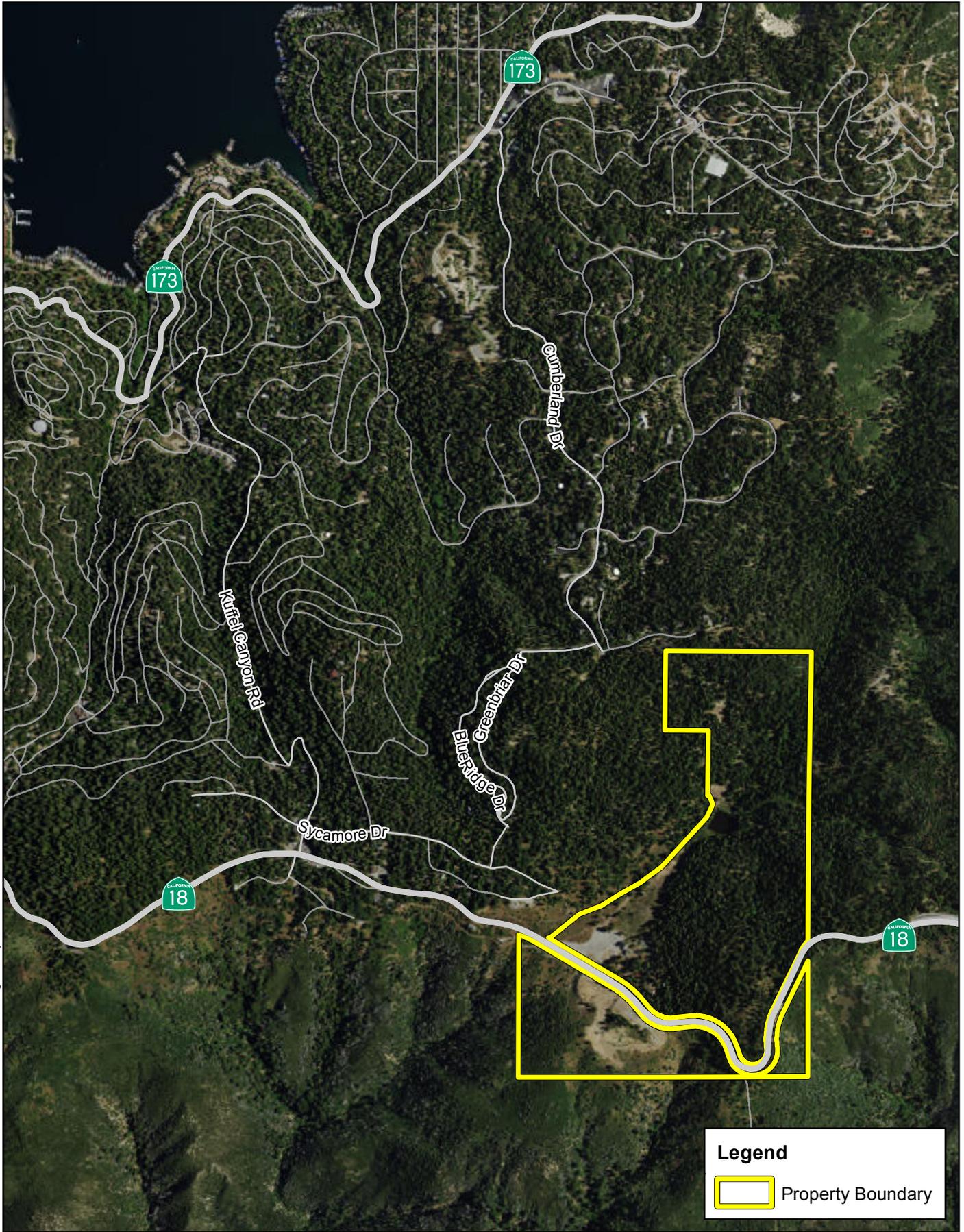
Utility Easements



Source: San Bernardino County, Eagle Aerial 2013

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**Legend**

 Property Boundary



**Michael Baker**  
INTERNATIONAL



Source: San Bernardino County, USGS, ESRI World Topographic Map

SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT  
**Surrounding Roadway Network**

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SURROUNDING LAND USES AND ROADWAY NETWORK

The Project site is located within unincorporated San Bernardino County near the community of Lake Arrowhead, CA. The Project is also located in the Mountain Region community designated by the *Lake Arrowhead Community Plan*. Single-family residences are located near the Project boundaries on the eastern side of Santa’s Village (located north of SR-18). There are large, contiguous undeveloped, natural areas immediately surrounding the Project site on the northern, southern, and western portions of the proposed Santa’s Village and SkyPark Campground Project components; refer to Exhibit 3.0-1, *Site Vicinity*. Table 3.0-1, *Project Site Existing Land Use and Official Land Use District* provides a summary of existing land use and land use district, also explained below.

**Table 3.0-1: Project Site Existing Land Use and Official Land Use District**

AREA	EXISTING LAND USE	OFFICIAL LAND USE DISTRICT
SITE	Santa’s Village, undeveloped land/ forest	Lake Arrowhead Special Development Residential, ( L A / S D - R E S ) a n d Lake Arrowhead Single Residential 14,000 Square
North	Undeveloped land/ former camp/ forest	Lake Arrowhead Single Residential 14,000 Square Foot Minimum (LA/RS-14m)
South	Undeveloped land/ forest	Non County Jurisdiction
East	Undeveloped forest	Non County Jurisdiction and Special Development- Residential (LA/SD-RES)
West	Single-family residential/ forest	Lake Arrowhead Single Residential 14,000 Square Foot Minimum LA/RS-14m) and Special Development-Residential (LA/SD-RES)

Primary regional access to the Project site is provided by SR-18, which generally runs in an east-west direction. SR-18 is a two lane state highway that bisects the Project site with access provided directly from both sides SR-18. SR-173 is a two lane roadway that runs in a north-south direction approximately 1.5 miles west of the Project site. It connects SR-18 to Lake Arrowhead and provides local and regional access to the Project site. Kuffel Canyon Road/ South Kuffel Canyon Road is a two lane roadway that runs in a north-south direction northwest of the Project site. It connects SR-173 in the north with SR-18 to the south approximately ½ mile west of the Project site and provides both local and

regional access to the Project site through SR-173. Cumberland Drive is a two lane roadway that runs in a north-south direction north of the Project site. It provides local access from SR-173 to residences in the Cedar Glen area north of the Project site. Cumberland Drive does not connect to SR-18, rather dead ends approximately ½ mile north of SR-18. Blue Ridge Drive and Greenbriar Drive are two land roadways that are parallel to each other, run in a north-south direction, and are located just west of the Project site. They provide local access to residences via Sycamore Drive, which connects to South Kuffel Canyon Road and SR-18. There is a paved roadway that runs in an east-west direction from the northern end of Blue Ridge Drive and Greenbriar Drive to the southern end of Cumberland Drive, however this roadway is gated and locked at both ends. Refer to Exhibit 3.0-9, *Surrounding Roadway Network* for the location of these roadways in relation to the Project site.

## 3.2 PROJECT BACKGROUND

In the late 1800's the property was established as a family farm and sawmill operation. Portions of the present timber stand were cleared and agricultural crops were planted. The sawmill was in operation in 1885 at the present site of the pond. The Henck family gained ownership of the property in 1918 and opened Santa's Village in 1955 until its closure in 1998. The property was purchased by the Skyforest Company in 2000 and the parking lot on the north side of SR-18 (north western portion of the Project site) and the overflow parking lot south of SR-18 (proposed campsite area) were used primarily to store logs, and as a grinding site following the bark beetle outbreak in 2002.

According to the 1990 Forest Management Plan by Mr. James Bridger, "The entire property was burned in 1919 and the portion south of SR-18 was re-burned in 1956." The 2003 "Old Fire" also burned the area south of SR-18 and it appears that the fire burned through the forested areas north of SR-18. However, it is clear that the portions of the property on the north side did not burn as hot as on the south side as very little scorching is evident on the residual trees, and also due to the fact that developed portions of the Project site, including existing buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955 remained intact.

### 3.3 EXISTING SITE CONDITIONS

The majority of the Project site is undeveloped, consisting of naturally occurring forest. Dirt fire access roads traverse the Project site. The developed portions of the Project site include buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955. The various buildings associated with the amusement park have remained intact since the park's closure in 1998. After the park's closure, the parking lot on the north side of SR-18 (western portion of the project site) and the overflow parking lot south of SR-18 (southern portion of the Project site) provided a staging area for bark beetle infested lumber. Although the lumber has been removed from the Project site, however there are still wood chips throughout the meadow area north of the northern parking lot as well as the southern parking lot and proposed campground area.

The proposed Project is characterized by a hilly to semi-steep terrain covered by montane coniferous forest primarily consisting of Jeffery and sugar pines, with some incense cedar, fir and oak trees. As a result of the Western Pine Bark Beetle epidemic affecting the San Bernardino National Forest, several trees were removed from the Project site.

The Project site includes a grassland meadow found in the southwestern portion of the Project site, north of the existing parking lot. This plant community consists of native and non-native plant species. This area has been subject to frequent human disturbances over the years, including the most recent storage of lumber. A pond is located in the northwest portion of the Project site that was excavated and filled with groundwater and stormwater runoff. The headwater of Hooks Creek is located just northwest of the pond and continues to the north.

### 3.4 PROPOSED PROJECT

The proposed project includes a General Plan Amendment to change the Official Land Use District from Lake Arrowhead/Special Development- Residential (LA/SD-RES) & Lake Arrowhead/Single Residential-14,000 Square Foot Minimum lot size (LA/RS-14M) to Lake Arrowhead/Rural Commercial (LA/CR) on 152.92 Acres.

The proposed project also includes an amendment to the Lake Arrowhead Community Plan and the Circulation Element of the County of San Bernardino General Plan. An amendment to the Lake Arrowhead Community Plan Policy LA/CI 1.14 is proposed to provide additional clarification and specificity for implementation while retaining the initial intent of the policy.

Policy LA/CI 1.14 is currently in the Lake Arrowhead Community Plan as:

Complete Cumberland Road<sup>1</sup> from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.
- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

The proposed amendment to this policy is identified using underline for new text and strikethrough for removed text as follows:

~~Complete Cumberland Road from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area~~ Require the design and construction of the extension of Cumberland Drive from Cedar Glen to State Highway 18 as a condition of development of any new residential subdivision extending from Cumberland Drive, Blue Ridge Drive, or Greenbriar Drive and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.
- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

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<sup>1</sup> In the Lake Arrowhead Community Plan Policy LA/CI 1.14, the roadway in reference is called Cumberland Road, however, on other maps (Google, Mapquest, etc.) it is referred to as Cumberland Drive. The proposed changes to Policy LA/CI will use Cumberland Drive.

Currently Cumberland Drive is designated as a Mountain Secondary (60-foot right-of-way) in the County's General Plan Circulation Element, as shown on Figure CI-2, *Major Roads and Freeways – Mountain Region*. The proposed amendment to the Circulation Element is to change the designation of Cumberland Drive from Mountain Secondary to Local Road (40-foot right-of-way). Cumberland Drive, as currently identified as a Secondary Street in Figure CI-2, *Major Roads and Freeways – Mountain Region* of the Circulation Element, would be removed from this figure as local streets are not shown on it.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*.

The proposed project includes a Conditional Use Permit (CUP) to re-establish an Outdoor Commercial Entertainment Center which includes an Amusement Park, Campground, Meadow/Wetland Rehabilitation, Restaurants, Bar, Wedding & Reception Facility, Retail, Trails, Recreational Activities and other Accessory Uses on 152.92 Acres.

The proposed project includes the redevelopment and re-use of the existing Santa's Village attraction. The proposed project also includes the development of a mixed-use adventure park that would include a variety of activities and services. Nineteen original buildings exist on the project site totaling 23,389 square feet. It is intended that the exteriors of these original buildings would not be significantly altered. Rather, the exterior of the buildings would be rehabilitated (re-painted, repaired). The interiors would be redeveloped in order to fulfill a variety of uses. All existing buildings would remain. No buildings are proposed to be demolished. The existing buildings that are being rehabilitated are identified on Exhibit 3.0-4, *Detailed Site Plan* and are listed in Table 3.0-2, *Existing Buildings to be Rehabilitated* below.

Improvements to Santa's Village attraction will also include the repair of hardscaping and landscaping. The asphalt pavement between the buildings will be replaced with concrete walkways and rock and other hardscaping to improve on site drainage. The attraction is located within and includes native forest trees and native shrubs. The proposed improvements include only minimal landscaping which may include native and drought tolerant shrubs and annuals/flower beds commonly used in landscaping. The site currently has minimal landscaping and will continue to have minimal landscaping as the site does not have a formal irrigation system. Existing forest trees are supported by natural rainfall and snow. The understory landscaping is also supported by natural rainfall and snow and is only supplemented by hand watering.

The Old Fire in 2003 resulted in the loss of mature trees in the Project area on the north and south side of SR-18 adjacent to the existing parking lots and highway. In March of 2016 a Cooperative Agreement was executed with Cal Fire to implement reforestation at in this area burned during the Old Fire. The reforestation included planting of approximately 6,000 tree saplings 10 feet apart by Cal Fire hand crews and SkyPark volunteers. The planting was completed in April 2016 and included ponderosa pine and Jeffrey pine.

**Table 3.0-2: Existing Buildings to be Rehabilitated**

<b>Building</b>	<b>Identification # on Exhibit</b>	<b>Square Footage</b>
Welcome House & Gift Shop	1	Retail 2,122 Office 1,531
Santa's House	2	288
Saint Nic's Patio and Grill	3	1,856
Pedal Pub/ Tavern	4	688
K' Candy Shop	5	905
The Gathering House	6	1,328
Coffee & Tea House	7	756
SkyPark Activity Center and Security Office	8	Activity Center 2,148 Security Office 1,227
Stone's Throw Gazebo	9	756
Sky Trading Company	10	2,952
Sky Pavillion	11	1,723

Building	Identification # on Exhibit	Square Footage
Reindeer Barn/ Retail & Crafts	12	1,950
Bouldering Room	13	720
Men's & Women's Restroom	14	750
Men's & Women's Restroom	15	272
Pebble Mine	16	192
Chapel	17	272
Good Witch's Bakery/Restaurant	18	990
Maintenance Building	25	405
Total		23,389

Additional recreational and entertainment amenities will be constructed as a part of the proposed project and are outlined in Table 3.0-3, *New or Expanded Recreational and Entertainment Amenities* below.

**Table 3.0-3: New or Expanded Recreational and Entertainment Amenities**

Amenity	Identification # on Exhibit
Reception Site	19
Wedding Ceremony Site	20
Skating Rink	21
Bouldering & Climbing Wall	22
Spider Jump/ Amusement	23
Playground 777	24
Maintenance Building	25
Monorail	26
Aerial Adventure	27
Trail System	28
Water Features – Silver Slipper Pond & Lady Bug Pond	29
Treehouse Aerial Adventure/ Playscape	30

Coaster Bike Play Area	31
------------------------	----

The proposed Project consists of the following primary components:

#### Amusement Park Zone

The Amusement Park Zone is an area within the property boundary where more concentrated amusement park use will occur. The zone is identified as the area of historic commercial use, previously impacted by the original development of Santa's Village. In order for SkyPark at Santa's Village to retain repeat visitors, to remain competitive in the Adventure and Amusement Park Industry, and to continue to promote tourism in the mountain community, replacement of attractions and/or amenities with new attractions and amenities will be necessary and will occur in the Amusement Park Zone over time. The types of new attractions and amenities in the Amusement Park Zone that are predicted at this time (but not limited to) could include implementation of the original car ride, playground amenities, climbing walls, additional zip lines, snow play activities, and small support structures, such as storage sheds or concessions or other attractions that its primary function is entertainment or recreation. The attractions or features will be similar to the proposed project components outlined below and will not require extensive grading or vegetation clearing or result in a greater generation of noise or light. These future attractions will not exceed 40 feet in height, using the existing 40-foot monorail as the baseline of existing improvements in the Amusement Park Zone. The existing 40-foot monorail does not extend higher than existing old growth forest. This height restriction will ensure the visual setting of the forest will be retained.

A Public Announcement (PA) System will be used at the park with multiple directional speakers in order to make announcements to park users or to play recorded background music. Live or recorded music will be used for both private venues, weddings and general park use within the Amusement Park Zone. Productions in dance, instrumental and vocals such as themed Christmas Carolers are examples of other live music that will occur.

The retail, office, restaurants, attractions, recreational amenities will include standard lighting typically used for commercial/retail/residential development. Ornamental

lighting, i.e. Christmas lights will be used on Christmas trees and buildings. Low height/low level lighting will also be used throughout the park as needed for safety lighting of walkways. No "spot lights" or other skyward lights are proposed to be used. All lighting in the park will include shields that direct the light in the intended direction. All lighting in the park will be directed downward and within the park such that there is not "light spill" outside of the Amusement Park Zone and on adjacent properties.

### Trails

#### **Fantasy Forest Trail**

The Fantasy Forest Trail is an existing trail that was used as a nature trail during the parks original years of operation. The trail cuts across the back of the existing Santa's Village attraction and is depicted as an existing hiking trail on the trail map (Exhibit 3.0-5, *Trails Plan*). It is within the boundary of the Amusement Park Zone as it will be open during the operating hours of the park and lit as a nighttime forest walk. It would be the only trail available after sun down and is very limited in its proximity to the park and distance. The trail distance is approximately 1/4 mile and is an interactive lighting attraction at night. The lighting attraction includes lights with various colors, patterns, and intensities that will be used to illuminate the forest immediately adjacent to the trail. The interactive component is movement sensors on the lights so that as visitors are walking down the trail additional lights are activated when activated by the visitors. All Fantasy Forest Trail lighting will be directed downward and will be shielded to control the direction of the lighting.

Improvement to the Fantasy Forest Trail includes clearing as needed for a width of 36-48-inch wide and sections of up to 100 feet in length will be elevated on a plank walkway. Un-elevated segments of the trail will be surfaced with decomposed granite.

#### **Multi-Use Trail**

This is open for bicycle, wheel chair, pedal assist, and pedestrian traffic. This trail is specifically designed to accommodate special needs. It does not include motorized vehicles with the exception of electric assist vehicles for special needs. Construction techniques may include light weight track vehicles which include small backhoe and

skid steer. It will be 5 feet to 8 feet maximum width, and surfaced with decomposed granite.

### **Hiking Trails**

This is a special use trail designed for hiking only. It is a single track trail not to exceed 36 inches in width. Used primarily for recreation, however, the use of signage, fencing and other forms of structures and materials are used for educational purposes. Surface is natural trail with the possible use of elevated walkways to prohibit soil disturbance in very wet conditions. Construction of these trails are by hand tools to include, McClouds, shovels, and rakes.

### **Mountain Bike Trail**

This is a special use trail for bicycles only. This trail is a single track trail designed for "one way" directional use. No double, side by side axle vehicles are allowed. Construction of these trails are by hand tools to include, McCloud, shovels, and rakes. Special features are implemented to include log crossings, water bars for slope erosion, safety rail, and riding features such as protective berms and wood features.

### **Access Roads**

This is a multi-use road for the continued purpose of accessing utility easements throughout the park. The road is a double wheel, side by side, four-wheel drive roadway accessible to park guest, utility companies and emergency vehicles. Most roads are dirt with the exception of some existing paved surfaces in the park and within property boundaries.

### **Existing Double Track**

This is capable of holding a four-wheel vehicle. Historically used for lumbering, emergency access and recreation. Existing double track trails have signage depicting their categorical use, many being multi-use trails. Including hiking, bicycle and emergency access use.

### **Existing Single Track**

This is a special use trail for bicycle use only. The trail system is "one way" directional traffic only. The width of the trail is closer to 24-inch and is constructed with hand tools to include McClouds, shovels, and rakes.

All of the trails will be maintained by hand tools. Techniques established by the US Forest Service and the International Mountain Biking Association (IMBA) are implemented to reduce impacts to soils erosion, noise, off trail access and responsible forest practices. An example of the signage is attached.

### Wilderness Adventure/ Zipline and Aerial Park

This feature would include ziplines, rope courses, adventure swings, climbing walls, balance features, log crossings, and exploration trails. The Forest Zipline and tree house is estimated to be an average of 30 feet in height and approximately 1,200 feet in length; however, the final designs would determine ultimate measurements. The tree house would have a zipline that is proposed to be approximately 16 feet high. A small children's zipline is proposed that would be approximately 8 feet high and 30 feet long. The tree house would be an engineered structure built among the trees. The final tree house platforms would either be constructed using a tree as the base or a standalone structure as shown within the Photo Figures at the end of this document. Final design would be dependent on County approval. The tree house is the only structure proposed to being developed north of SR-18 at the existing SkyPark at Santa's Village site.

### Forest Playground

This feature would include bridges and swings. The playground would also provide seating; natural playscapes and sensory challenges such as log walks, stepping-stones and exploration.

### Skybike Monorail

The existing bumblebee ride would be converted to a pedal operated bike monorail that would traverse the southern portion of the park. Existing infrastructure will be used. The bumblebee cars will be replaced with pedal operated bikes.

### Fly Fishing Lake and Stream

Recreational fishing and trout stocking are planned uses of the existing on-site pond and additional three ponds (water and sediment control basins) that will be created as part of the Hencks Meadow restoration. Fly-fishing clinics, guides and lessons, and fly-fishing instruction would be offered at the site's improved and existing reservoir/pond system. The on-site ponds and connecting stream would be stocked with rainbow trout as permitted by the Fisheries Branch of the California Department of Fish and Wildlife. Historically the pond has been stocked with trout. Rainbow trout fishing would be provided for catch and keep, or release as the guest wishes.

### Hiking and Tours

Eco-tours, education, and wildlife would be offered. The project will promote wildlife and habitat education. Job skills will be introduced through "Pathways" an ongoing ROP program through local school districts. Ecotourism involving bird watching blinds, trails and assisted programs will be implemented to educate the public and students on the importance of wildlife preservation.

### Santa's Village/Winter Attractions

Winter attractions at Santa's Village, would operate during the months of November and December. Winter attractions would include an outdoor ice rink, snowshoeing, sledding, and snow play. It is anticipated that these attractions would attract the largest number of visitors for the year.

### Retail

A variety of related retail shops would be developed throughout the property. These uses would include gift shops, equipment rentals/purchases, and a variety of other retail uses that would be located within the existing buildings.

### Restaurants

A full service restaurant, snack bar, pub, and bakery/candy store are proposed within the existing buildings.

### Wedding Services

A wedding chapel, outdoor reception area, and full service wedding event center (including bridal room) would be developed within the existing buildings.

### Campground Site

A campground is proposed to be located south of SR-18. Refer to Exhibit 3.0-6, *Campground Site Plan*. Minor grading would be required to improve the existing dirt road to provide access to and create 70 RV sites and approximately 35 tent campsites within the 20-acre campground. A restroom will be constructed on the campground site and would utilize a septic system that would be sized per restroom requirements and would have a tank with a leach field in the same design standards as the existing septic systems in the Santa's Village site. The chambers that separate the solids are pumped out periodically as needed. The proposed campground restroom building will be approximately 1,450-1,500 square feet. It will include 2 laundry units, 2 urinals, 8 toilets, 6 showers (4 standard and 2 handicap) and 8 wash basins/sinks. Several community camp fire rings are proposed at the campground. These camp fire rings would be supplied by natural gas and burning of wood or other materials would not be allowed.

### Parking and Circulation

The existing paved parking lots, on north and south side of SR-18, will continue to be used. The proposed project does not require expansion of parking lots. The existing parking lots do not have any lighting and no addition of lighting is proposed. Parking lots will be resurfaced and re-striped for parking lots and circulation direction. There are approximately 550 spaces within the existing parking areas.

### Utilities

The northern portion of the project site would utilize existing utilities already located onsite, refer to Exhibit 3.0-8, *Utility Easements*. Currently, there are no utilities located on the southern site. An existing water and gas line on the northern portion of the site will be extended to provide utility for the southern site for the restroom and fire flow at the campground area.

### Operating Hours

Peak season for the proposed project is anticipated to be November and December (approximately 2,000 visitors per day). Low season is anticipated to be during spring and early fall. Summer is anticipated to have an average of 1,000 visitors per day. Operating hours are proposed to be 8AM to 10PM. The project is proposed to be fully operational year round, with no planned closures.

#### Offsite Improvements

Offsite improvements would be included with the proposed project and would involve new dedicated left turn lanes and signalized intersection with crosswalks on SR-18 at the revised entrance to SkyPark. SR-18 would be widened to accommodate two left-turn lanes into the driveways of the campground site and the Santa's Village site as vehicles approach from both directions of SR-18. Some trees would need to be removed as part of the widening of SR-18 and some trees would need to be trimmed to provide improved vision if the trees surrounding the driveways conflict with vehicles safely exiting from the proposed project driveways.

#### Meadow Restoration

The project also includes the removal of waste from the site and restoration of Hencks Meadow. Previously, the project site was used as a storage site for wood material infested by the bark beetle and has left the site with debris, woodchips, firewood, bark and trash. A Conservation Plan for the meadow was developed by the US Department of Agriculture, Natural Resources Conservation Service which includes construction of water & sediment control basins and a streambank protected waterway that conveys flows between them. The Conservation Plan also includes planting of native species, installation of structures for wildlife, and on-going herbaceous weed control. Refer to Exhibit 3.0-7, *Meadow Conservation Plan*). Ultimately, improvements to the health beauty and natural resources of the project area would serve as a balanced ecosystem that would be created for education, recreation and wildlife.

### **3.5 PROJECT OBJECTIVES**

The goal for the SkyPark at Santa's Village Project is to enhance the community through revitalization of the existing facilities and implementation of new active recreational

amenities, wildlife and habitat education, community gathering areas, and a safe environment.

A clear statement of Project objectives allows for the analysis of reasonable alternatives to the Project, both on- and off-site, that would feasibly attain most of the basic Project objectives, while avoiding or substantially lessening the significant effects of the Project, must be analyzed per CEQA Guidelines Section 15126.6.

The proposed Project is intended to meet the following objectives:

- Rehabilitate and repurpose the existing Santa's Village attraction and re-open for the public to enjoy;
- Provide the opportunity for economic stability in the surrounding mountain communities;
- Provide a balance between both passive and active recreational uses that meet the demands of the community and surrounding area;
- Provide the opportunity to become a role model for future sustainable, conservation-based recreation parks in the State;
- Promote the importance of wildlife and habitat education through eco-tourism;
- Provide job training and career placement in partnership with Rim of the World School district through "Pathways" a Regional Occupational Program and other outreach programs.
- Restore the existing meadow on site through the implementation of a conservation plan prepared by the US Department of Agriculture, Natural Resources Conservation Service;
- Provide the opportunity for a healthier community through outdoor recreation activities such as hiking, biking, fishing, climbing and environmental studies;
- Revitalize the existing pond to improve overall hydrology and further support recreational activities;
- Provide additional facilities where community gathering events can be held;

- Provide safe traffic access into and through the Project area;
- Provide adequate parking facilities within the Project area;
- Provide camping opportunity to further cater to tourism within the Project area;
- Provide on-site operation and maintenance for hospitality, recycling, enhancement; and
- Provide on-site security support.

### **3.6 DISCRETIONARY ACTIONS AND APPROVALS**

This EIR serves as an informational document of use by public agencies, the general public, and decision makers. This EIR discusses the impacts of development of the proposed Project. The EIR will be used by the County Board of Supervisors and responsible agencies in assessing impacts of the proposed Project. The following public entities and/or agencies may use this EIR when considering the Project:

#### **San Bernardino County Board of Supervisors**

- Conditional Use Permit approval
- Environmental Impact Report Certification

#### **California Department of Fish and Wildlife**

- Issuance of a permit under Section 1600 of the Fish and Game Code related to lake or streambed alterations, as applicable

#### **California Department of Transportation**

- Issuance of an Encroachment Permit
- Approval of improvement plans

#### **Regional Water Quality Control Board**

- Issuance of Notice of Intent prior to construction operations related to National Pollutant Discharge Elimination System (NPDES) Construction Permit

- Issuance of water quality certification pursuant to Section 401 of the Clean Water Act (CWA) in connection with issuance of a Section 404 CWA permit, as applicable
- Issuance of waste discharge requirements, as applicable

**U.S. Army Corps of Engineers**

- Issuance of Section 404 permit under the CWA, as applicable.

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**Section 4.0**  
**ENVIRONMENTAL ANALYSIS**

**SKYPARK AT SANTA'S VILLAGE**  
**DRAFT ENVIRONMENTAL IMPACT REPORT**

## 4.0 ENVIRONMENTAL ANALYSIS

The EIR will examine the following environmental factors outlined in the CEQA Guidelines Appendix G, Environmental Checklist:

- 4.1 Aesthetics, Light and Glare
- 4.2 Agriculture and Forestry
- 4.3 Air Quality
- 4.4 Biological Resources
- 4.5 Cultural Resources
- 4.6 Geology, Soils, and Seismicity
- 4.7 Greenhouse Gas Emissions/Climate Change
- 4.8 Hazards and Hazardous Materials
- 4.9 Hydrology and Water Quality
- 4.10 Land Use
- 4.11 Mineral Resources
- 4.12 Noise
- 4.13 Population and Housing
- 4.14 Public Services
- 4.15 Recreation
- 4.16 Transportation and Circulation
- 4.17 Utilities

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

“**Existing Conditions**” describes the physical conditions that exist at this time and that may influence or affect the issue under investigation.

“**Regulatory Setting**” describes the pertinent policy, standards, and codes that exist at this time and that may influence or affect the regulatory environment of the proposed Project.

“**Significance Criteria**” provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in the CEQA Guidelines Appendix G, Environmental Checklist.

Major sources used in crafting 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, flora, fauna, ambient noise, and objects of historic and aesthetic significance” constitutes a significant impact (CEQA Guidelines Section 15382).

## IMPACTS

The “**Level of Significance**” identifies the impact significance level with implementation of the proposed Project. Impacts are classified as potentially significant impact, less than significant impact, or no impact.

Project impacts are the 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; potential direct and reasonably foreseeable indirect effects are considered to the extent feasible.

Mitigation measures are those Project-specific measures that would be required of the proposed 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.<sup>1</sup>

**“Cumulative Impacts and Mitigation Measures”** describes potential environmental changes to the existing physical conditions that may occur with the proposed Project together with all other reasonably foreseeable, planned, and approved future Projects.

**“Significant Unavoidable Impacts”** describes impacts that would be significant, but cannot be feasibly mitigated to less than significant; thus, they 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” and the Project approved (CEQA Guidelines Section 15093[a]).

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<sup>1</sup> The measures presented in this EIR are either “Project design features” (those that would be implemented as part of Project design) or mitigation measures (those that would mitigate Project impacts above and beyond any reduction in impacts accomplished by Project design features).

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**SECTION 4.1**  
**AESTHETICS, LIGHT AND GLARE**

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**4.1 AESTHETICS, LIGHT AND GLARE**

This section describes the environmental and regulatory settings of aesthetic and visual resources, as they pertain to implementation of the proposed Project. This section is based on information obtained from available public resources including, but not limited to, the *County of San Bernardino General Plan (2007)*, *Lake Arrowhead Community Plan (2007)*, and available Geographical Information Systems (GIS) data and maps.

**ENVIRONMENTAL SETTING**

**LANDSCAPE CHARACTER**

*REGIONAL SETTING*

The project site is located within the San Bernardino Mountains, directly adjacent to U.S. National Forest lands, an area recognized for its scenic value.

*SURROUNDING LAND USES*

The Project site is surrounded by the following land uses:

**North:** Residences, including the community of Cedar Glen and undeveloped areas are located to the north of the Project.

**South:** To the south, the Project site is bordered by natural undeveloped San Bernardino National Forest land.

**East:** To the east, the Project site is bordered by private undeveloped land and natural undeveloped San Bernardino National Forest land.

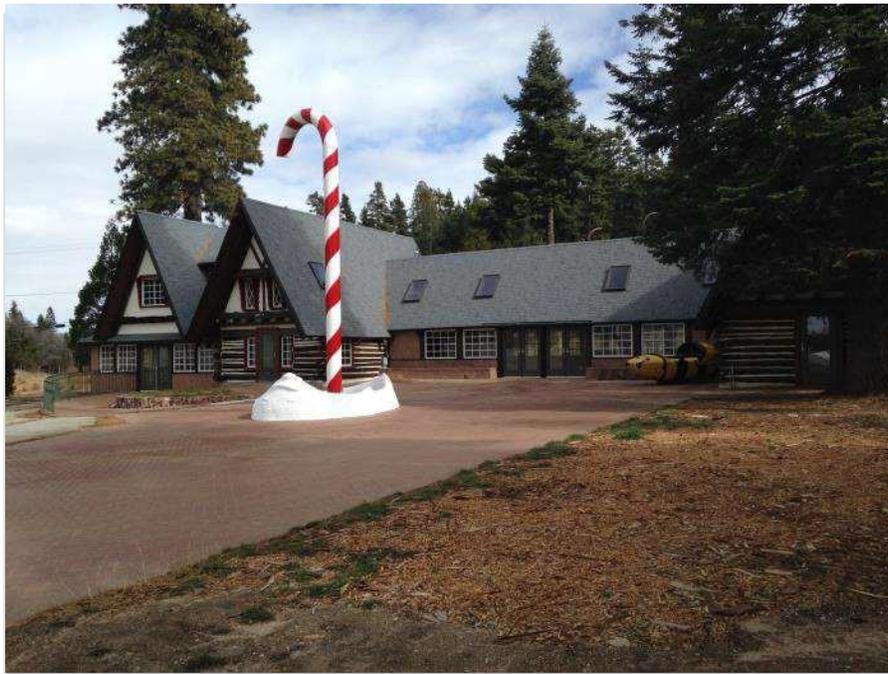
**West:** To the west, the Project site is bordered by natural undeveloped San Bernardino National Forest land.

*PROJECT SETTING*

The majority of the Project site is undeveloped, consisting of naturally occurring forest. Dirt fire access roads traverse the Project site. The developed portions of the Project site include buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955. The various buildings associated with the amusement park have remained intact since the park's closure in 1998. After the park's closure, the parking lot on the north side of SR-18 (western portion of the project site) and the overflow parking lot south of SR-18 (southern portion of the Project site) provided a staging area for bark beetle infested lumber. Although the lumber has been removed from the Project site, there are still wood chips throughout the meadow area north of the northern parking lot as well as the southern parking lot and proposed campground area.

The proposed Project is characterized by a hilly to semi-steep terrain covered by montane coniferous forest primarily consisting of Jeffery and sugar pines, with some incense cedar, fir and oak trees. As a result of the Western Pine Bark Beetle epidemic affecting the San Bernardino National Forest, several trees were removed from the Project site.

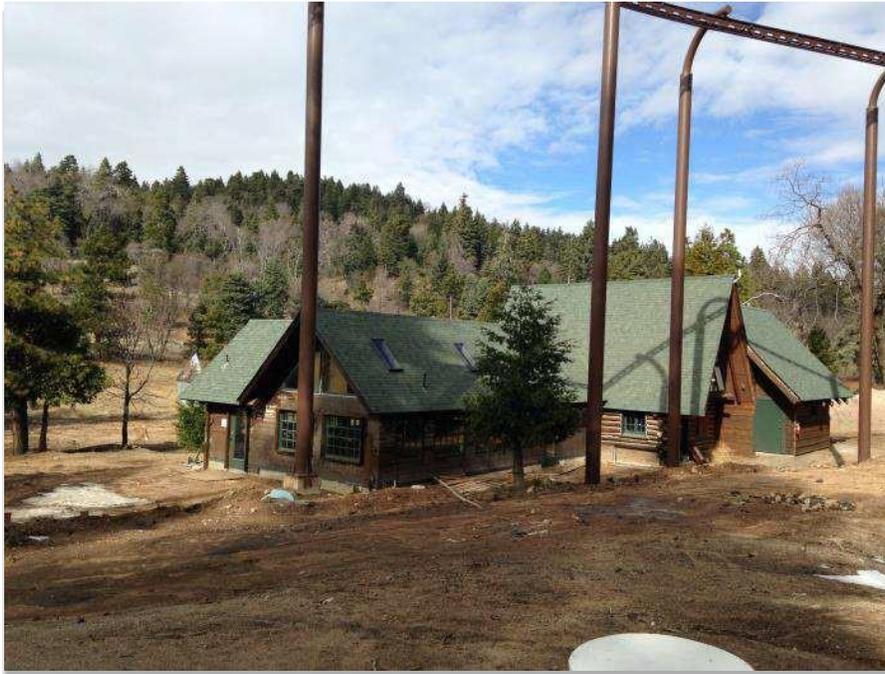
The Project site includes a grassland meadow found in the southwestern portion of the Project site, north of the existing parking lot. This plant community consists of native and non-native plant species. This area has been subject to frequent human disturbances over the years, including the most recent storage of lumber. A pond is located in the northwest portion of the Project site that was excavated and filled with groundwater and stormwater runoff. The headwater of Hooks Creek is located just northwest of the pond and continues to the north.



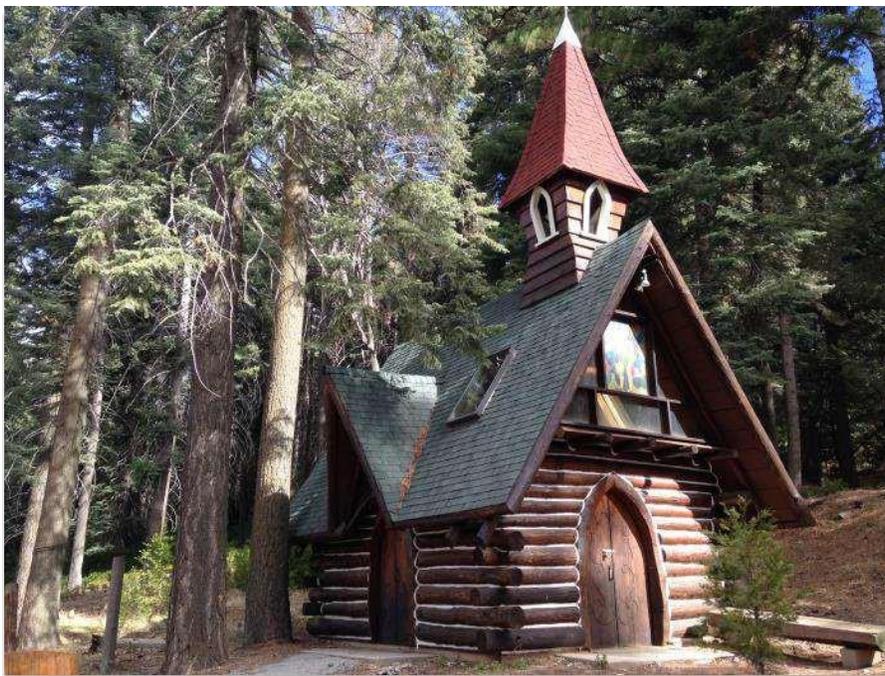
Photograph 1: Welcome House (main façade)  
*January 10, 2015, view looking northeast.*



Photograph 2: Santa's House (main façade showing chimney right of frame)  
*January 10, 2015, view looking northeast.*



Photograph 3: Pixie Pantry (south and east elevations)  
*January 10, 2015, view looking north.*



Photograph 4: Chapel of the Little Shepherd (main façade)  
*January 10, 2015, view looking northeast.*



Photograph 5: Good Witch's Bakery (main façade)  
*January 10, 2015, view looking southwest.*



Photograph 6: Monorail Loading Station  
*January 10, 2015, view looking northwest.*



Photograph 7: Existing Parking Lot  
*August 2015, view looking southwest, stop-sign at driveway onto SR-18 in upper right frame.*



Photograph 8: Existing Meadow  
*August 2015, view looking southwest.*



Photograph 9: Existing Pond  
*August 2015, view looking southwest.*



Photograph 10: Existing Parking Lot (south side of SR-18)  
*August 2015, view looking southwest.*



Photograph 11: Campground site  
*August 2015, view looking south.*

## **VISIBILITY**

Motorists traveling in either direction along SR-18 are the primary viewers of the Project site. Direct, unobstructed public or private views of the Project site from the off-site locations to the north and east are extremely limited due to the topography and undeveloped forested nature of these areas. The existing parking lot and buildings can be seen from SR-18 looking north. The existing parking lot, hill and water tank can be seen from SR-18 looking south. The campground site is generally not visible from SR-18 due to it being at a lower elevation than the roadway and existing parking lot on south side of SR-18. Due to topography and trees, views of the existing parking lots and buildings from SR-18 along the southwest portion of the site and from residential streets to the northwest (i.e. Sycamore Drive, Blue Ridge Drive, Oak Road) are obstructed. Furthermore, there are no designated public trails in the immediate vicinity that provide views of the Project site.

## LIGHT AND GLARE

There are two typical types of light intrusion. First, light emanates from the interior of structures and passes out through windows. Second, light projects from exterior sources, such as street lighting, security lighting, and landscape lighting. "Light spill" is typically defined as the presence of unwanted and/or misdirected light on properties adjacent to the property intended to be illuminated.

Glare is the sensation produced by luminance within the visual field that is significantly greater than the luminance to which the eyes are adapted, which causes annoyance, discomfort, or loss in visual performance and visibility.

The majority of the Project site is undeveloped forest land. As such, these areas do not produce light or glare. With the exception of some residential and commercial development along SR-18 is rural in nature and do not provide streetlights. However, headlights from passing cars along SR-18 produce light and glare. Residential and small local businesses, approximately one-quarter mile west of the Project site utilize typical outdoor lighting for ground illumination and security purpose. The sources of light and glare surrounding the site and their associated effects are minimal and typical of the mountain area.

## SCENIC VISTAS

A scenic vista is defined as a naturally pleasing distant view through an avenue or opening. The Project site is located directly adjacent to SR-18 and near views of the existing parking lots and existing buildings are provided from driving along SR-18, especially from the traveling east as they are located at a lower elevation and there is a lack of trees adjacent to the roadway. Therefore, the Project site itself is not considered a scenic vista. However, the view of the San Bernardino Valley (Redlands, Highland, and San Bernardino) can be seen from along SR-18 to the south where not obstructed by topography and trees. Therefore, the distant view of the San Bernardino Valley from SR-18 is considered a scenic vista, when not obstructed by topography and/or trees.

## REGULATORY FRAMEWORK

### FEDERAL

SR-18 is designated as a Scenic Byway by the U.S. Forest Service. Generally, roads designated by government agencies that are "byways" have been recognized by the U.S. Congress in the National Scenic Byways Program of the Federal Highway Administration. SR-18 has been recognized by the U.S. Forest Service, and was designated on February 7, 1990. The byway is approximately 107 miles (172.2 km) long, and traverses the rim of the San Bernardino Mountains from Cajon Pass to San Geronio Pass.

No other Federal laws, regulations, or executive orders apply to scenic resources within the Project area.

### STATE

#### *CALIFORNIA SCENIC HIGHWAY PROGRAM*

The California Scenic Highway Program was created in 1963 to preserve and protect highway corridors located in areas of outstanding natural beauty from changes that would diminish the aesthetic value of the adjacent lands. The California Department of Transportation (Caltrans) designates highways based on how much of the landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which views are compromised by development.

The California Scenic Highway Program is governed by the regulations found in the Streets and Highways Code, Section 260 et seq. Section 261 requires local government agencies to take the following actions to protect the scenic appearance of the scenic corridor:

- Regulate land use and density of development;
- Provide detailed land and site planning;
- Control of outdoor advertising;
- Pay careful attention to and control of earthmoving and landscaping; and
- Scrutinize the design and appearance of structures and equipment.

A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view. Official designation requires a local jurisdiction to enact a scenic corridor protection program that protects and enhances scenic resources.

There are no Officially Designated State Scenic Highways within the vicinity of the Project area.

There are no other State regulations regarding aesthetic impacts that are applicable to the Project.

## **LOCAL**

*COUNTY OF SAN BERNARDINO DEVELOPMENT CODE (2007)*

### **Scenic Byway/ Scenic Highway Designations for Highway 18**

SR- 18 is designated as a Scenic Route in the County of San Bernardino General Plan Open Space Element. As further described below in the discussion of the County Open Space Element, various policies have been established by the County to promote scenic values along Scenic Highways, including the special evaluation of development within defined scenic corridors.

### **County of San Bernardino Conservation Element**

The County of San Bernardino General Plan Conservation Element goals and policies that are pertinent and applicable to the Mountain Region and the proposed project are identified as follows:

#### **Goals:**

- M/CO 1**      Preserve the unique environmental features of the Mountain Region including native wildlife, vegetation and scenic vistas.
  
- M/CO 5**      Preserve the dark night sky as a natural resource in the Mountain Region communities.

**Policies:**

- M/CO 5.3** Review exterior lighting as part of the design review process.
- M/CO 5.4** All outdoor lighting, including street lighting, shall be provided in accordance with the Night Sky Protection Ordinance and shall only be provided as necessary to meet safety standards.

**County of San Bernardino Open Space Element**

The following Countywide goals and policies of the Open Space Element are pertinent and applicable to the proposed project are identified as follows:

**Goal:**

- OS 5** The County will maintain and enhance the visual character of scenic routes in the County.

**Policies:**

- OS 5.1** The County will maintain and enhance the visual character of scenic routes in the County.

Features meeting the following criteria will be considered for designation as scenic resources:

- a. A roadway, vista point, or area that provides a vista of undisturbed natural areas.
- b. Includes a unique or unusual feature that comprises an important or dominant portion of the viewshed (the area within the field of the observer).
- c. Offers a distant vista that provides relief from less attractive views of nearby (such as views of mountain backdrops from urban areas).

- OS 5.2** Define the scenic corridor on either side of the designated route,

measured from the outside edge of the right-of-way, trail, or path. Development along scenic corridors will be required to demonstrate through visual analysis that proposed improvements are compatible with scenic qualities present.

- OS 5.3** The County desires to retain the scenic character of visually important roadways throughout the County. A "scenic route" is a roadway that has scenic vistas and other scenic and aesthetic qualities that over time have been found to add beauty to the County. Therefore, the County designates the following route as [a] scenic highways and applies all applicable policies to development on [this] route:

**Multiple Regions**

- d. State Route 18 from San Bernardino northeast to the City of Big Bear Lake; for Big Bear Lake northwest to Apple Valley; within the Victorville sphere of influence; and from Victorville and Adelanto to the Los Angeles County line.

**Goal:**

- OS 7** The County will minimize land use conflict between open spaces and surrounding land uses.

**Policy:**

- OS 7.5** Require that natural landform and ridgelines be preserved by using the following measures:
- a. Keep cuts and fills to an absolute minimum during the development of the area.
  - b. Require the grading contours that do occur to blend with the natural contours on site or to look like contours that would naturally occur.
  - c. Encourage the use of custom foundations in order to

minimize disruption of the natural landform.

- d. Require that units located in the hillsides be so situated that roof lines will blend with and not detract from the natural ridge outline.

### **Open Space Overlay**

The County's Open Space (OS) Overlay was created to address the issue of open space including natural resources, scenic resources, and trails. The OS Overlay seeks to preserve scenic resources and to provide the public additional opportunities to enjoy these scenic areas.

Subsections of Section 82.19.040, Development Criteria within Scenic Areas, of the County Development Code that are pertinent and applicable to the proposed project are identified as follows:

- a. **Applicability.** The criteria below shall be used to evaluate a land use proposed within a scenic area in an Open Space Overlay and shall apply to:
  1. Areas with unique views of the County's desert, mountain and valley areas or any other aesthetic natural land formations.
  2. An area extending 200 feet on both sides of the ultimate road right-of-way of State and County designated Scenic Highways as identified in the General Plan. The area covered may vary to reflect the changing topography and vegetation along the right-of-way.
- b. **Report.** A special viewshed analysis may be required if it is determined that the proposed project may have a significant negative impact on the scenic values of the subject parcel.

- c. **Building and Structure Placement.** Structure placement shall be compatible with and shall not detract from the visual setting or obstruct significant views.
- d. **Review Area.** Intensive land development proposals, including residential facilities, commercial activities and mobile home parks/manufactured home land- lease community, shall be designed to blend into the natural landscape and maximize visual attributes of the natural vegetation and terrain. The design of the development proposals shall also provide for maintenance of a natural open space parallel to and visible from the right-of-way.
- e. **Access Drives.** Right-of-way access drives shall be minimized. Developments involving concentrations of commercial activities shall be designed to function as an integral unit with common parking and right-of-way access drives.
- f. **Landscaping.** The removal of native vegetation, especially timber, shall be minimized and replacement vegetation and landscaping shall be compatible with the local environment and, where practicable, capable of surviving with a minimum of maintenance and supplemental water. Landscaping and plantings should not obstruct significant views, either when installed or when they reach mature growth.
- g. **Above Ground Utilities.** Utilities shall be constructed and routed underground except in those situations where natural features prevent the underground siting or where safety considerations necessitate above ground construction and routing. Above ground utilities shall be constructed and routed to minimize detrimental effects on the visual setting of

the designated area. Where it is practical, above ground utilities shall be screened from view from either the Scenic Highway or the adjacent scenic or recreational resource by existing topography, or by placement of structures.

- h. **Grading.** The alteration of the natural topography of the site shall be minimized and shall avoid detrimental effects to the visual setting of the designated area and the existing natural drainage system. Alterations of the natural topography shall be screened from view from either the Scenic Highway or the adjacent scenic or recreational resource by landscaping and plantings which harmonize with the natural landscape of the designated area, and which are capable of surviving with a minimum of maintenance and supplemental water.
- i. **Signs.** Primary freestanding signs greater than 18 square feet are prohibited in the OS Overlay.

### **Glare and Outdoor Lighting**

The County of San Bernardino encourages outdoor lighting practices that will minimize light pollution; conserve energy while maintaining nighttime safety and visibility; and curtail the degradation of the nighttime visual environment through Chapter 83.07 of the County Development Code. Key provisions of the ordinance focus on shielding requirements for various light fixtures and applications. The ordinance is applicable to the Valley, Mountain and Desert Regions located within the County limits.

### **Sign Regulations**

The County of San Bernardino has established general sign regulations and additional standards and regulations by land use zoning districts under Chapter 83.13 of the County Development Code. The standards are intended, in part, to enhance the appearance of the County, to encourage sound signing practices as a means of aiding businesses and providing information to the public, to prevent excessive and confusing light displays, and to reduce hazards to motorists and pedestrians.

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### **Lake Arrowhead Community Plan**

The Lake Arrowhead Community Plan includes the following conservation goal that is relevant to scenic resources:

**Goal:**

- LA/CO 1. Preserve the unique environmental features of Lake Arrowhead including native wildlife, vegetation, and scenic vistas.

## **IMPACT ANALYSIS AND MITIGATION MEASURES**

### **METHODOLOGY**

An assessment of visual impacts was prepared by evaluating the existing visual setting and comparing it to visual conditions assumed to occur under the proposed Project. The Project site and surrounding land uses were observed and photographic documentation was taken to determine the short- and long-term visual effects of the proposed Project.

### **THRESHOLDS OF SIGNIFICANCE**

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this Draft EIR, implementation of the Project would be considered to have a significant impact on aesthetics if it would do any of the following:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features;
- Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project have substantial adverse effect on a scenic vista?</i>
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**Impact 4.1-1**      **Implementation of the Project would not have a substantial adverse effect on a scenic vista. This impact would be *less than significant*.**

A scenic vista is defined as a naturally pleasing distant view through an avenue or opening. The Project site is located directly adjacent to SR-18 and near views of the existing parking lots and existing buildings are provided from driving along SR-18, especially from the traveling east as they are located at a lower elevation and there is a lack of trees adjacent to the roadway. Therefore, the Project site itself is not considered a scenic vista. However, the view of the San Bernardino Valley (Redlands, Highland, and San Bernardino) can be seen from along SR-16 to the south where not obstructed by topography and trees. Therefore, the distant view of the San Bernardino Valley from SR-18 is considered a scenic vista.

As the existing structures will be rehabilitated and no new buildings will be constructed they will not obstruct or adversely affect the view from SR-18 to the valley down below.

The Tree House is the only new structure proposed to be developed at the SkyPark at Santa's Village site. The tree house would be an engineered structure built among the trees. The tree house would be constructed as a part of a zipline attraction that is proposed to be approximately 16 feet high. Another Attraction, the Forest Zipline, is estimated to be an average of 30 feet in height and approximately 1,200 feet in length. A small children's zipline would be approximately 8 feet high and 30 feet long. These project features will be located behind the existing buildings and within the trees and forested area on the north side of SR-18 and therefore, would not significantly impact the scenic vista south of SR-18.

The proposed campground site for SkyPark is currently undeveloped and will have 70 camp sites as well as the construction of two buildings for bathrooms/showers/laundry. These buildings would be that of a typical outdoor restroom facility in parks, thus it

would not be a tall building that would obstruct scenic vistas. The proposed campground site is generally open, with only a few scattered trees with mild slopes to the south. The existing southern parking lot and a hill is located directly adjacent to and south of SR-18. The proposed campground site is located south of the hill and at a lower elevation than SR-18. The designated tent set up zone on the camping site would be negligibly visible from motorist traveling in both directions on SR-18, therefore adverse effect on scenic vistas would not be anticipated.

Less than significant impacts from Project implementation on the scenic vista south of SR-18 would occur.

<i>Threshold:</i>	<i>Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</i>
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**Impact 4.1-2      Implementation of the Project would not substantially damage scenic resources. This impact would be *less than significant*.**

Although SR-18 is not designated as a state scenic highway it is designated as a Scenic Byway by the US Forest Service and as a Scenic Route in the County's General Plan Open Space Element. Implementation of the Project will only result in minor changes to the site adjacent to SR-18. The lack of trees in the campground site is due to the Old Fire in 2003. Thus, creating a naturally disturbed open area. Development of the campground does not require tree removal. It will include minor grading and improvements for the road and parking sites for each campsite. The Project site does not include rock outcroppings. The historic buildings on the northern side of SR-18 would remain in place. The exteriors will be restored and the interiors rehabilitated to accommodate the proposed uses (i.e. restaurant, coffee shop, gift shop). Therefore, implementation of the proposed Project would not result in substantial damage to scenic resources along SR-18.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future.

The 20-foot right-of-way will follow the existing dirt road and Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities. The extension of Cumberland Drive is expected to be constructed at some time in the future. However, it is not known when in the future it may be constructed because it is based on future development by private property owners. If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way because this alignment is along an existing utility easement and dirt road, future construction of a paved roadway here would not be expected to result in impacts to scenic resources including rock outcroppings, or historic buildings, as it is already disturbed and functions as a road. A few trees may need to be trimmed and/or removed, however this would not result in a substantial change to scenic resources within the Project site and adjacent to SR-18.

The Old Fire in 2003 resulted in the loss of mature trees in the Project area on the north and south side of SR-18 adjacent to the existing parking lots and highway. In March of 2016 a Cooperative Agreement was executed with Cal Fire to implement reforestation at in this area burned during the Old Fire. The reforestation included planting of approximately 6,000 tree saplings 10 feet apart by Cal Fire hand crews and SkyPark volunteers. The planting was completed in April 2016 and included ponderosa pine and Jeffrey pine.

The roadway improvements for this Project includes consolidation of the driveways on SR-18 to one location with driveways servicing the parking lots located on the north and south sides of the highway. SR-18 will be widened to provide one eastbound left-turn lane and one westbound left-turn lane into the driveways off the highway. An intersection will be constructed at the consolidated driveways with striped crosswalks. These improvements will require the removal of approximately 10-15 mature trees along the shoulder of the highway. With implementation of mitigation measure MM AES-1 potential aesthetic impacts from the loss of these resources are reduced to less than significant levels.

**Mitigation Measure:**

**MM AES-1** Trees that are removed as a result of roadway improvements shall be replaced by replanting of native species at a minimum height of 8 feet at a 2:1 ratio of new trees to removed trees in the vicinity of the area they were removed. A landscape plan which includes the species, size, and location of trees to be planted shall be submitted to and approved by San Bernardino County Land Use Services Department and Caltrans.

<i>Threshold:</i>	<i>Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?</i>
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**Impact 4.1-3** **Implementation of the Project would not substantially degrade the existing visual character or quality of the site and its surroundings. This impact would be *less than significant*.**

See section A above.

<i>Threshold:</i>	<i>Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</i>
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**Impact 4.1-4** **Implementation of the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views. This impact would be *less than significant*.**

SkyPark is expected to be open from 8 am to 10 pm and the campground will be open 24 hours when in use. Lighting would be required within the Amusement Park Zone and the campground sites for ground and building illumination during evening/nighttime hours for security and the safety of visitors and park employees. However, the remainder of the Project site will not have lighting. The proposed Project does not include any features, such as reflective structures, that would create substantial glare or affect day time views.

The retail, office, restaurants, attractions, recreational amenities will include standard lighting typically used for commercial/retail/residential development. Ornamental lighting, i.e. Christmas lights will be used on Christmas trees and buildings. Low height/low level lighting will also be used throughout the park as needed for safety lighting of walkways. No "spot lights" or other skyward lights are proposed to be used. All lighting in the park will include shields that direct the light in the intended direction. All lighting in the park will be directed downward and within the park such that there is not "light spill" outside of the Amusement Park Zone and on adjacent properties. The existing parking lots do not have any lighting and no additional of lighting is proposed.

The Fantasy Forest Trail is an existing trail that was used as a nature trail during the parks original years of operation. The trail cuts across the back of the existing Santa's Village attraction and is depicted as an existing hiking trail on the trail map (Exhibit 3.0-5, *Trails Plan*). It is within the boundary of the Amusement Park Zone as it will be open during the operating hours of the park and lit as a nighttime forest walk. It would be the only trail available after sun down and is very limited in its proximity to the park and distance. The trail distance is approximately 1/4 mile and is an interactive lighting attraction at night. The lighting attraction includes lights with various colors, patterns, and intensities that will be used to illuminate the forest immediately adjacent to the trail. The interactive component is movement sensors on the lights so that as visitors are walking down the trail additional lights are activated when activated by the visitors. All Fantasy Forest Trail lighting will be directed downward and will be shielded to control the direction of the lighting.

The proposed campground site for SkyPark is currently undeveloped and includes 70 campsite spaces as well as the construction of a bathroom/shower/laundry building. This area would have soft lights for ground illumination. This would help guide campers to the bathroom facilities.

Compliance with the following County General Plan policies is required and will help ensure new outside lighting will not adversely affect night time views:

**M/CO 5.3** Review exterior lighting as part of the design review process.

**M/CO 5.4** All outdoor lighting, including street lighting, shall be provided in accordance with the Night Sky Protection Ordinance and shall only be provided as necessary to meet safety standards.

However, to further ensure that the proposed Project and associated improved/additional lighting would not create a new source of substantial light which would adversely affect nighttime views, the following mitigation shall be implemented:

**MM AES-2:** All exterior and permanent lighting shall be the minimum lumen (measure of the total quantity of visible light emitted by a source), shielded downward, and stationed at the minimum height in order to light the target area. The County of San Bernardino Building and Safety Department will review construction plans for compliance with applicable codes, including the Night Sky Protection Ordinance, and will conduct final inspection approval for issuance of Certificate of Occupancy.

**MM AES-3:** All lighting to be installed for the Fantasy Forest Trail shall be at the be the minimum lumen, shielded downward, and stationed at the minimum height in order to light the target area. All Fantasy Forest Trail lighting shall not extend beyond and illuminate more than 50 feet into the forest from the edge of either side of the trail. Upon completion of the Fantasy Forest Trail a report shall be completed by the contractor, that verifies, the lighting does not extend more than 50 feet into the adjacent forest. This report shall be submitted to the Land Use Services Department for review and approval.

## CUMULATIVE IMPACTS

An evaluation of whether an impact on aesthetic resources, including light and glare, 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 substantially diminish or result in the loss of an important aesthetic resource, or those that would conflict with local, State, and/or Federal plans, goals, or regulations.

As previously discussed, the Project proposes restoration of the existing buildings in the Project site and other improvements that would not alter the natural feel of the site due to the blending in with the natural setting. The meadow restoration will include native plants that would increase aesthetic value to the site. Therefore, implementation of the proposed Project would significantly alter the aesthetics of the site in a beneficial way. Mitigation Measure MM AES-1 will ensure impacts to scenic resources will be less than significant.

Although the new amenities would include new sources of lighting, the new light sources would be consistent with the *County of San Bernardino Design Guidelines and Standards* and the *Lake Arrowhead Community Plan Mountain Area Guidelines*. Only lighting that is shielded and can be directed in such a way as to not adversely affect the adjacent SR-18. Implementation of mitigation measures MM AES-2 and AES-3 will ensure impacts to nighttime views in the mountain region will be less than significant. Because the Project would result in beneficial aesthetic impacts, and does not conflict with any existing local, State, or Federal goals, policies, or regulations, cumulative impacts on aesthetic resources as a result of the Project would be less than significant.

## **4.2 AGRICULTURE AND FORESTRY**

This section describes the agricultural and forestry setting and potential environmental impacts, as they pertain to implementation of the proposed Project. This section is based on the California Cooperative *Forest Management Plan* (2014) prepared for the proposed Project site by the Natural Resources Conservation District (Appendix B), the California Department of Conservation *Farmland Mapping and Monitoring Program* (2015), and the *San Bernardino County General Plan* (2007) and the *Lake Arrowhead Community Plan* (2007).

### **ENVIRONMENTAL SETTING**

#### **AGRICULTURAL**

According to the California Department of Conservation Farmland Mapping there are no agricultural resources in the Mountain Region, including the Project site, with the exception of the Oak Glen area. Oak Glen is located approximately 40 miles southeast to the Project site. The community of Oak Glen remains the exception to the Mountain Region where apple orchards and related agribusiness activities maintain the agricultural heritage of the area.

#### **FORESTRY**

The San Bernardino National Forest is located directly adjacent to the Project site to the west and south and managed by the US Forest Service (USFS). As outlined in the California Cooperative Forest Management Plan (CCFMP) the existing forest structure in the Project site consists of a two storied timber stand due primarily to logging operations in the late 1800's, followed by partial harvests occurring from the 1930's through the 1960's. Many large second growth, incense cedar (*Calocedrus decurrens*) and white fir (*Abies concolor*) are evident throughout the property, as well as significant third growth cedar and fir. Timber stands have largely been replaced on the southern portion of the site, south of SR-18, with chaparral/brush. These areas are recovering from the 2003 Old

Fire and are composed of manzanita (*Arctostaphylos* spp.), black oak sprouts (*Quercus kelloggii*) and ceonothus (*Ceanothus* spp.).

## REGULATORY FRAMEWORK

### FEDERAL

#### *SAN BERNARDINO NATIONAL FOREST*

The USFS published a Land Management Plan, also referred to as a Forest Plan, which guides forest managers in site-specific planning and decision making for each forest area. The Forest Plan for the Southern California National Forests (Forest Plan), which includes the San Bernardino National Forest, was most recently updated in 2005. While the Forest Plan acknowledges widespread urbanization adjacent to all four National Forests in southern California as a primary management challenge, it describes goals and objectives for lands within the jurisdiction of the USFS only, and does not prescribe actions applicable to surrounding municipalities (USFS 2010).

### STATE

#### *WILLIAMSON ACT/CALIFORNIA LAND CONSERVATION ACT OF 1965*

The California Land Conservation Act (CLCA) of 1965, Sections 51200 et seq. of the California Government Code, commonly referred to as the "Williamson Act", enables local governments to restrict the use of specific parcels of land to agricultural or related open space use. Landowners enter into contracts with participating cities and counties and agree to restrict their land to agriculture or open space use for a minimum of ten years. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market (speculative) value. Local governments receive an annual subvention of foregone property tax revenues from the state via the Open Space Subvention Act of 1971.

#### *CALIFORNIA DEPARTMENT OF CONSERVATION CLASSIFICATION*

The California Department of Conservation (CDC), Division of Land Resource Protection developed the Farmland Mapping and Monitoring Program (FMMP) in 1984 to analyze

impacts to California's agricultural resources. In the FMMP land is rated based on a land capability classification system, and land use.

Land designations include the following categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-up Land, and Other Land. The CDC considers Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance to be Important Farmland. These categories are defined by the FMMP as follows:

**Prime Farmland (P):** Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

**Farmland of Statewide Importance (S):** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

**Unique Farmland (U):** Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

**Farmland of Local Importance (L):** Land of importance to the local agricultural economy as determined by each County's Board of Supervisors and a local advisory committee.

**Farmland of Local Potential (LP):** This rarely used classification includes soils, which qualify for Prime Farmland or Farmland of Statewide Importance, but generally are not cultivated or irrigated.

**Grazing Land (G):** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's

Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

**Urban and Build-up Land (D):** Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures on a 10-acre parcel. This land is used for: residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

**Other Land (X):** Land not included in any other mapping category. Common examples include: low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and, water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is also mapped as Other Land.

PUBLIC RESOURCES CODE

The California Public Resource Codes (CPRC) defines Forest Land, Timber Land and Timber Land Production Zones as follows:

**Forest land (12220 G):** Land that can support 10-percent native tree cover of any species, including: hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

**Timber Land (4526):** Land, other than land owned by the Federal government and land designated by the Board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the Board on a District basis after consultation with the District committees and others.

**Timber Land Production Zone (51104 G):** Timber Land Production Zone (TPZ) are areas which have been zoned and is devoted to and uses for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

## LOCAL

### *SAN BERNARDINO COUNTY GENERAL PLAN*

#### **Goal:**

**M/LU 1.** Retain the existing alpine character of the Mountain Region.

#### **Policies:**

**M/LU 1.1** Regulate the density of development in sloping hillside areas in order to reduce fire hazards, prevent erosion, and to preserve the forest character of the region.

**M/LU 1.2** Architecture and outside facades of multi-family, build-out residential tracts and commercial structures shall be in keeping with the mountain character. Natural woods, or wood composite materials, and masonry shall be used as much as practicable and reviewed for conformance during the development approval process.

**M/LU 1.3** Ensure that development standards for retail buildings and single family homes result in building sizes that are limited of a size and scale that is compatible with existing development and the character of the Mountain Region. Establish three dimensional building envelopes to ensure compatibility.

**M/LU 1.4** Allow only low density residential uses in areas that are appropriate for residential development but do not have adequate services at present.

**M/LU 1.5** Assign General Plan land use zoning districts on the basis of slope and the carrying capacity of the existing infrastructure.

- M/LU 1.6** The density and character of development shall not detract from the beauty, character and quality of the residential alpine environment.
- M/LU 1.7** Because the scarcity of water and arable lands, as well as the short growing season, agricultural uses in the Mountain Region are impractical. Because these uses can damage other desired attributes in the Mountain area, the County shall discourage agricultural land uses from locating in the Mountain Region, with the notable exception of Oak Glen.
- M/LU 1.8** The County shall regulate the density and configuration of residential development along the shore of all mountain lakes in order to protect their scenic qualities.
- M/LU 1.9** Require the use of the Planned Development concept in environmentally sensitive areas that have been assigned residential land use category.
- M/LU 1.10** Utilize construction techniques for single family homes which will preserve the forest character of the region by minimizing disruption of land and vegetation during construction.
- M/LU 1.11** Monitor, as part of the review of new subdivisions and housing projects, the availability and adequacy of public services.
- M/LU 1.12** Through the development review process, permit new development only when new public services required to safely provide for the development are existing or assured.
- M/LU 1.13** Require discretionary review of all subdivisions, land divisions and large scale housing projects.
- M/LU 1.14** Limit the installation of manufactured homes to those areas where:
- a) The siting techniques that are required to install manufactured homes will not damage the environment

more than the construction of conventional dwellings including, but not limited to, tree removal, site preparation, foundation construction and the placement of the manufactured home on the foundation. Items such as potential for increased grading and tree removal necessary to move these homes onto permanent foundations shall be considered.

- b) There is adequate access to transport the manufactured home(s) to the site(s).
- c) The use of manufactured homes will be compatible with the built environment.

**M/LU 1.15** Approve Land Use Zoning District changes only when adequate services exist or are assured.

**M/LU 1.16** Develop special development and community standards for hillside developments to address allowable cut and fill heights and horizontal runs, soil and slope stability, grading and blending of contours, structural relationships, building foundations, and the like.

**M/LU 1.17** Require residential building foundations to conform to natural slope (custom foundations) where the natural slope exceeds 15 percent.

**M/LU 1.18** Limit the number of animals on parcels exceeding 15% slope to minimize erosion problems.

**M/LU 1.19** Encourage the merger of substandard lots into parcel sizes of at least 5,000 square feet in area.

**M/LU 1.20** Closely review development projects on private land adjacent to National Forest lands to ensure that development projects are capable of meeting all development requirements within the project boundaries or other non-federal land. Provide opportunities for the U.S. Forest Service to consult with the

County on development of private land that may have an adverse effect on adjoining National Forest land.

**Goal:**

**M/LU 2.** Provide opportunities for commercial and industrial development within the region that is compatible with the forest and mountain character and meets the needs of local residents and visitors.

**Policies:**

**M/LU 2.1** Concentrate future commercial development within existing commercial nodes, centralized areas, or neighborhood centers that are designed with the mountain character in mind to avoid strip commercial development along roads.

**M/LU 2.2** The County shall develop site design standards for commercial development within the region to ensure that architectural detailing and signage are compatible with the character of the mountain region, and to ensure that sites are designed to be more pedestrian-friendly, provide adequate parking, and buffers between commercial and adjacent residential uses.

**M/LU 2.3** Ensure that all commercial and industrial development that is adjacent to residential uses is adequately buffered by utilizing transitional land uses and/or design features such as enhanced setbacks and landscaping and/or other screening materials.

**M/LU 2.4** Limit future industrial and service commercial development to that necessary to meet the service, employment, and support needs of the mountain communities and limited export of manufactured goods, and does not adversely impact the mountain environment.

- M/LU 2.5** Establish additional Service Commercial (CS) Land Use Zoning Districts or zones to allow for needed support services such as contractors, storage and repair facilities.
- M/LU 2.6** Ensure that commercial recreation and tourist facilities be located, designed and controlled to protect the residential-recreation character of the area.
- M/LU 2.7** New industrial uses which generate heavy truck traffic shall be allowed only on State Highways 18 and 38.
- M/LU 2.8** Industrial land uses shall be located in areas where industrial uses will best serve the needs of the community and will have a minimum adverse effect upon surrounding property with minimal disturbance to the mountain environment and the total community. This can be accomplished by:
- a. Only permitting those industrial uses within the Community Industrial (IC) land use district or zone that can adequately control all sources of pollution, including noise, water and air quality concerns.
  - b. Fully screening all open storage activities with fencing and indigenous landscaping, and limit open storage to the rear 75 percent of any parcel.
  - c. Requiring the architecture and appearance of all buildings to be compatible with the mountain character; natural wood and masonry shall be used.
- M/LU 2.9** Only permit in the Community Industrial Land Use Zoning District those industrial uses that can adequately control all sources of pollution including noise, water and air quality concerns.

*LAKE ARROWHEAD COMMUNITY PLAN*

**Goal:**

**LA/CO 2.** Maintain the health and vigor of the forest environment.

**Policies:**

**LA/CO 2.1** Work collaboratively with the California Department of Forestry and Fire Warden (CDF), Natural Resource Conservation District and the U.S. Forest Service to implement a long-term Forest Health Restoration and Maintenance Program that will restore fire resiliency, increase safety, and provide community and forest sustainability.

**LA/CO 2.2** Work with the local Fire Safe Council and Fire agencies in the development of Community Wildfire Protection Plans (CWPP) for the mountain communities. As part of this effort, a study shall be prepared to determine appropriate forest management techniques and identify any necessary modifications to the County's Tree Preservation Ordinance to ensure the long term health of the forest.

**LA/CO 2.3** Require the re-vegetation of any graded surface with suitable native drought and fire resistant planting to minimize erosion.

**LA/CO 2.4** Establish a parking provision for the purpose of saving healthy trees in parking areas by giving parking credit for areas containing specimen trees.

**LA/CO 2.5** Require an approved landscape plan as part of the location and development plan review and approval process for all proposed residential, commercial and industrial projects. Projects within the LACSD service area shall conform to LACSD-adopted mandatory landscape standards.

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## IMPACT ANALYSIS AND MITIGATION MEASURES

### METHODOLOGY

This section analyzes impacts to agriculture and forest resources based on a review of existing publications, regulations, and current aerial photographs of the Project site and its vicinity. Potentially significant impacts would generally result from the loss or conversion of Farmland or forest land to other uses or conflict with zoning for agricultural use, forest land, or timberland.

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part on the CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on agriculture and forestry if it would do any of the following:

- 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 uses;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- 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 Governmental Code section 51104 (g));
- Result in the loss of forest land or conversion of forest land to non-forest use;
- 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.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.2-1**      **Implementation of the proposed Project would have no impact related to the conversion of 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, and no mitigation measures would be required.**

The Farmland Mapping and Monitoring Program of the California Department of Conservation is responsible with mapping Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance (Farmland) across the state. This site is designated partially developed and not utilized for farming activities. The Project site is not mapped as Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland). Therefore, project would not convert Farmland. No impact would occur and no mitigation measures would be required.

<i>Threshold:</i>	<i>Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?</i>
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**Impact 4.2-2**      **Implementation of the proposed Project would have no impact related to conflicting with existing zoning for agricultural uses, or a Williamson Act contract, and no mitigation measures would be required.**

The proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. The Project site is located in the following Land Use Districts: Lake Arrowhead/Special Development-Residential and Lake Arrowhead/Single Residential – 14,000 square foot minimum lot size. The Project site is not under a

Williamson Act contract. No impact would occur and no mitigation measures would be required.

<i>Threshold:</i>	<i>Would the Project 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))?</i>
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**Impact 4.2-3      The Project site would have no impact related to existing zoning for, or cause the 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)), and no mitigation measures would be required.**

California Public Resources Code section 12220 (g) defines forest land as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

California Public Resources Code section 4526 states, "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees.

Government Code section 51104 (g) states that “timberland production zone or “TPZ” means an area which has been zoned pursuant to section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.”

Although the Project site does contain forest land the proposed Project would not conflict with existing zoning for, or cause rezoning of forest land, as defined above. The proposed Project is not situated in land zoned for timberland use or timberland production. Therefore, no impact would occur and no mitigation measures would be required.

<i>Threshold:</i>	<i>Would the Project result in the loss of forest land or conversion of forest land to non-forest use?</i>
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**Impact 4.2-4**      **Implementation of the Project would not result in the loss of forest land or conversion of forest land to non-forest use. This impact would be *less than significant*.**

The implementation of the proposed Project would not result in the loss of forest land. Construction activities for the proposed improvements are primarily located in areas that are already developed, disturbed, and/or are open and lack trees. It is not anticipated that trees would be removed during implementation of the proposed Project. Thus, restoration of the meadow would not result in the loss of forest land. The proposed campground site is naturally disturbed from a 2003 wildfire, thus, very few trees remain on site. Therefore, minor grading and construction of the road, individual camp sites, and the restroom facility in the campground site would not result in the direct loss of forest land.

As outlined above, NRCS has developed a California Cooperative Forest Management Plan (CCFMP) to preserve the integrity of the forested land on the Project site. The intent of the CCFMP is to return the onsite forest to a more fire resilient state and potentially reduce the threat of insect and disease introduced by stress caused by drought and fire events. The goal is to reducing the fuel load throughout the forested area so that when a fire does occur on the property, a stand replacing, uncontrollable fire can be avoided by creating a more low-intensity fire that can be controlled and perhaps be beneficial to the overall forest health. Implementation of the management activities outlined in the CCFMP will help restore, enhance and maintain the forested areas onsite. Implementation of the Project would not involve converting forest land to non-forest use. The proposed Project would have a less than significant impact resulting in a loss of forest

land or conversion of forest land to non-forest use and not mitigation measures would be required.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the existing dirt road and Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, Utility Easements. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities. It cannot be determined at this time if the dedication as a part of the proposed Project will actually be used for an extension of Cumberland Drive in the future. However, if Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way because this alignment is along an existing utility easement and dirt road, future construction of a paved roadway here would not result in conversion of forest land.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.2-5      Implementation of the Project would not 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 would occur and no mitigation measures would be required.**

The Project site is not currently utilized for farming activities and is not zoned for agriculture. Furthermore, the SkyPark site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. No impacts would occur as the proposed Project will not convert Farmland to a non-agricultural use.

Although the Project site does contain forest land, construction activities for the proposed improvements are primarily located in areas that are already developed, disturbed,

and/or are open and lack trees. It is not anticipated that trees would be removed during implementation of the proposed Project. No impacts would occur as the proposed Project would not convert forest land to non-forest use.

## **CUMULATIVE IMPACTS**

The San Bernardino Mountains do not support agricultural uses for commercial production. Thus, future development in the City of Sky Forest and in the surrounding cities and unincorporated County areas within the San Bernardino Mountains would not lead to a cumulatively considerable conversion of farmland to urban uses. No development is anticipated to occur in the San Bernardino National Forest that is not in compliance with the Forest Plan, since this forest is under the jurisdiction of the USFS and proposed for preservation. No cumulative impacts on farmlands, forest lands, timberland, agricultural operations, crop production, or conflicts with agricultural zones or Williamson Act contracts would occur with the implementation of the proposed Project.

### **4.3 AIR QUALITY**

This section addresses air emissions generated by construction and operation of the proposed Project and the potential impacts to air quality. The analysis also addresses the Project's consistency with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) *2012 Air Quality Management Plan*. The analysis of Project-generated air emissions focuses on whether the Project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold. Air quality technical data is included in Appendix C, *Air Quality/Greenhouse Gas Emissions Data*.

## **ENVIRONMENTAL SETTING**

### **SOUTH COAST AIR BASIN**

#### *GEOGRAPHY*

The Project site is located in the South Coast Air Basin (Basin), a 6,600-square mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area of Riverside County.

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 general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The climate consists of a semi-arid environment with mild winters, warm summers, moderate temperatures, and

comfortable humidity. Precipitation is limited to a few winter storms. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit (°F). However, with a less-pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. All portions of the Basin have recorded temperatures over 100°F in recent years.

Although the Basin has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature. Annual average relative humidity is 70 percent at the coast and 57 percent in the eastern part of the Basin. Precipitation in the Basin is typically 9 to 14 inches annually and is rarely in the form of snow or hail due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from entering the upper atmosphere, resulting in a settlement in the foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the day. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of ozone (O<sub>3</sub>) observed during summer months in the Basin. Smog in southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The Basin has a limited ability to disperse these pollutants due to typically low wind speeds. The area in which the Project is located offers clear skies and sunshine, yet is still susceptible to air inversions. These inversions trap a layer of stagnant air near the ground, where it is then further loaded with pollutants. These inversions cause haziness, which is caused

by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources.

The Sky Forest area is located in the San Bernardino Mountains at an approximate 5,400 foot elevation. The area receives 310 annual days of sunshine being above the marine layer that covers the Los Angeles Basin during much of the year. The warmest month of the year is July with an average maximum temperature of 81°F, while the coldest months of the year are December and January with an average minimum temperature of 29°F. The annual average precipitation in the Sky Forest area is approximately 42 inches. Average snowfall is 47 inches a year starting in late November and usually ending in March.

### **LOCAL AMBIENT AIR QUALITY**

Existing and probable future levels of air quality in the Project area can be best inferred from ambient air quality measurements conducted by the SCAQMD. The SCAQMD monitors air quality at 37 monitoring stations throughout the Basin. Each monitoring station is located within a Source Receptor Area (SRA). The communities within an SRA are expected to have similar climatology and ambient air pollutant concentrations. The Project site is located within SRA 36 (Central San Bernardino Mountains), and the closest air monitoring station is the Crestline Monitoring Station. The air pollutants measured at the Crestline monitoring station site include O<sub>3</sub> and large particulate matter (PM<sub>10</sub>). Because Crestline is located more within the Southern California inversion layer, it likely has slightly poorer O<sub>3</sub> air quality than does Sky Forest. There is, however, no better smog measurement resource available. Data for carbon monoxide (CO) and nitrogen dioxide (NO<sub>2</sub>) were obtained from the San Bernardino 4<sup>th</sup> Street Monitoring Station. Data for ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub>), and fine particulate matter (PM<sub>2.5</sub>) were obtained from the Crestline Monitoring Station. Data for sulfur dioxide (SO<sub>x</sub>) was obtained from the Fontana – Arrow Monitoring Station. The air quality data monitored at the Crestline, San Bernardino 4<sup>th</sup> Street, and Fontana – Arrow stations from 2012 to 2014 are presented in Table 4.3-1, *Summary of Air Quality Data*.

**Table 4.3-1: Summary of Air Quality Data**

Pollutant	Primary Standard		Year	Maximum Concentration <sup>1</sup>	Number of Days State/Federal Std. Exceeded
	California	Federal			
Carbon Monoxide (CO) <sup>2</sup> (8-Hour)	9.0 ppm for 8 hours	9.0 ppm for 8 hours	2012	1.64 ppm	0/0
			2013	N/A	0/0
			2014	N/A	0/0
Carbon Monoxide (CO) <sup>2</sup> (1-Hour)	20 ppm for 1 hour	35 ppm for 1 hour	2012	3.10 ppm	0/0
			2013	3.83	0/0
			2014	4.12	0/0
Ozone (O <sub>3</sub> ) <sup>3</sup> (1-Hour)	0.09 ppm for 1 hour	N/A <sup>7</sup>	2012	0.140 ppm	56/2
			2013	0.120	45/0
			2014	0.130	50/1
Ozone (O <sub>3</sub> ) <sup>3</sup> (8-Hour)	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2012	0.112 ppm	103/86
			2013	0.106	101/72
			2014	0.106	97/68
Nitrogen Dioxide (NO <sub>x</sub> ) <sup>2</sup>	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2012	0.067 ppm	0/0
			2013	0.072	0/0
			2014	0.073	0/0
Sulfur Dioxide (SO <sub>x</sub> ) <sup>4</sup>	0.04 ppm for 24 hours	0.14 ppm for 24 hours	2012	0.004 ppm	N/A
			2013	0.001	N/A
			2014	N/A	N/A
Particulate Matter (PM <sub>10</sub> ) <sup>3,5,6</sup>	50 µg/m <sup>3</sup> for 24 hours	150 µg/m <sup>3</sup> for 24 hours	2012	119.7 µg/m <sup>3</sup>	6.5/0
			2013	90.9	24.2/0
			2014	74.5	21.4/0
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>3,6</sup>	No Separate State Standard	35 µg/m <sup>3</sup> for 24 hours	2012	41.2 µg/m <sup>3</sup>	NM <sup>7</sup>
			2013	45.3	NM <sup>7</sup>
			2014	29.1	NM <sup>7</sup>

ppm = parts per million  
 µg/m<sup>3</sup> = micrograms per cubic meter  
 NM = Not Measured

PM<sub>10</sub> = particulate matter 10 microns in diameter or less  
 PM<sub>2.5</sub> = 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. Data collected from the San Bernardino 4th Street Monitoring Station located at 24302 4th Street, San Bernardino, California 92410.
  3. Data collected from the Crestline Monitoring Station located at 24171 Lake Drive, Crestline, California 92325.
  4. Data collected from the Fontana-Arrow Monitoring Station located at 14360 Arrow Highway, Fontana, CA 92335.
  5. PM<sub>10</sub> exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
  6. PM<sub>10</sub> and PM<sub>2.5</sub> exceedances are derived from the number of samples exceeded, not days.
  7. The Federal standard was revoked in June 2005.

Source: California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Air Quality Data Statistics*, <http://www.arb.ca.gov/adam/welcome.html>, accessed on March 10, 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 CO. Exposure to high levels of CO can slow reflexes and cause drowsiness, and result in death in confined spaces at very high concentrations.

Ozone (O<sub>3</sub>). O<sub>3</sub> 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" O<sub>3</sub> layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

"Bad" O<sub>3</sub> is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO<sub>x</sub>), and sunlight to form; therefore, VOCs and NO<sub>x</sub> are O<sub>3</sub> precursors. To reduce O<sub>3</sub> concentrations, it is necessary to control the emissions of these O<sub>3</sub> precursors. Significant O<sub>3</sub> 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 O<sub>3</sub> concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O<sub>3</sub> in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O<sub>3</sub> (in the troposphere) can adversely affect the human respiratory system and other tissues. O<sub>3</sub> 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 O<sub>3</sub>. Short-term exposure (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California 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<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>) are a family of highly reactive gases that are a primary precursor to the formation of ground-level O<sub>3</sub>, and react in the atmosphere to form acid rain. NO<sub>2</sub> (often used interchangeably with NO<sub>x</sub>) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO<sub>2</sub> occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM<sub>10</sub>). PM<sub>10</sub> refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM<sub>10</sub> arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM<sub>10</sub> 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<sub>2.5</sub>). Due to increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal PM<sub>2.5</sub> 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<sub>2.5</sub> 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 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. 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<sub>2.5</sub> standards.

Sulfur Dioxide (SO<sub>2</sub>). SO<sub>2</sub> is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. SO<sub>2</sub> is often used interchangeably with SO<sub>x</sub> and lead (Pb). Exposure of a few minutes to low levels of SO<sub>2</sub> can result in airway constriction in some asthmatics.

Reactive Organic Gases and Volatile Organic Compounds. Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (ROGs) and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

## **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 acutely and chronically ill (especially those with cardio-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. The nearest sensitive uses are residential uses located approximately 675 feet to the northwest of the Project boundary, and 735 feet to the west (to the south of SR-18). In addition, the Saint Richards Episcopal Church is located approximately 0.33-mile to the northwest of the site.

## **REGULATORY FRAMEWORK**

### **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. The criteria pollutants are O<sub>3</sub>, CO, NO<sub>2</sub>, which is a form of NO<sub>x</sub>, SO<sub>2</sub>, which is a form of sulfur oxides (SO<sub>x</sub>), PM<sub>10</sub>, PM<sub>2.5</sub>, and lead; refer to Table 4.3-2, *National and California Ambient Air Quality Standards*.

**Table 4.3-2: National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California <sup>1</sup>		Federal <sup>2</sup>	
		Standard <sup>3</sup>	Attainment Status	Standards <sup>3,4</sup>	Attainment Status
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	<b>Nonattainment</b>	N/A	N/A
	8 Hours	0.070 ppm (137 µg/m <sup>3</sup> )	N/A	0.070 ppm (137 µg/m <sup>3</sup> )	<b>Extreme Nonattainment</b>
Particulate Matter (PM <sub>10</sub> )	24 Hours	50 µg/m <sup>3</sup>	<b>Nonattainment</b>	150 µg/m <sup>3</sup>	Attainment
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	<b>Nonattainment</b>	N/A <sup>6</sup>	N/A
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>5</sup>	24 Hours	No Separate State Standard		35 µg/m <sup>3</sup>	<b>Nonattainment</b>
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	<b>Nonattainment</b>	12.0 µg/m <sup>3</sup>	<b>Nonattainment</b>
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Attainment	35 ppm (40 mg/m <sup>3</sup> )	Attainment/Maintenance
	8 Hours	9.0 ppm (10 mg/m <sup>3</sup> )	Attainment	9 ppm (10 mg/m <sup>3</sup> )	Attainment/Maintenance
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>6</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	<b>Nonattainment</b>	100 ppb (188 µg/m <sup>3</sup> )	Unclassified/Attainment
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	<b>Nonattainment</b>	0.053 ppm (100 µg/m <sup>3</sup> )	Attainment/Maintenance
Sulfur Dioxide (SO <sub>2</sub> ) <sup>7</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Attainment	75 ppb (196 µg/m <sup>3</sup> )	N/A
	3 Hours	N/A	N/A	N/A	N/A
	24 Hours	0.04 ppm (105 µg/m <sup>3</sup> )	Attainment	0.14 ppm	Unclassified/Attainment
	Annual Arithmetic Mean	N/A	N/A	0.030 ppm (for certain areas)	N/A
Lead (Pb) <sup>8,9</sup>	30 days average	1.5 µg/m <sup>3</sup>	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 µg/m <sup>3</sup>	Attainment
Visibility-Reducing Particles <sup>10</sup>	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	<b>No Federal Standards</b>	
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Unclassified		

Pollutant	Averaging Time	California <sup>1</sup>		Federal <sup>2</sup>	
		Standard <sup>3</sup>	Attainment Status	Standards <sup>3,4</sup>	Attainment Status
Vinyl Chloride <sup>9</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	N/A		

µg/m<sup>3</sup> = 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

- California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM<sub>10</sub> 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.
- 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 ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, 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.
- Concentration 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 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- To attain this standard, the 3-year average of the 98<sup>th</sup> percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).
- On June 2, 2010, a new 1-hour SO<sub>2</sub> 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 99<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> 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.
- 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.
- National lead standard, rolling 3-month average: final rule signed October 15, 2008.
- 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 and U.S. Environmental Protection Agency, October 1, 2015.

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## 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 4.3-2, 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 AQMPs also serve as the basis for 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.

## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The *2012 Air Quality Management Plan (2012 AQMP)*, which was adopted in December 2012, proposes policies and measures to achieve federal and state standards for improved air quality in the South Coast Air Basin and those portions of the Salton Sea Air Basin (formerly named the Southeast Desert Air Basin) that are under the South Coast Air Quality Management District's (SCAQMD's) jurisdiction. The AQMP relies on a regional and multi-level partnership of governmental agencies at the federal, state, regional, and local level. These agencies (EPA, CARB, local governments, Southern California Association of Governments [SCAG], and the SCAQMD) are the primary agencies that implement the AQMP programs. The 2012 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts.

The 2012 AQMP addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The 2012 AQMP highlights the reductions and the interagency planning necessary to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act. The primary task of the 2012 AQMP is to bring the Basin into attainment with federal health-based standards. It is noted that the SCAQMD is currently in the process of developing the 2016 AQMP, which is a comprehensive and integrated plan primarily focused on addressing the ozone and PM<sub>2.5</sub> standards. The 2016 AQMP will incorporate the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, Regional Transportation Plan/Sustainable Communities Strategy, and updated emission inventory methodologies for various source categories.

## **SAN BERNARDINO COUNTY**

### *SAN BERNARDINO COUNTY GENERAL PLAN*

The *County of San Bernardino 2007 General Plan (April 2007)* Conservation Element and Land Use Element includes the following goals and policies related to the improvement of air quality.

#### Conservation Element

##### **Goal:**

- CO 4:** The County will ensure good air quality for its residents, businesses, and visitors to reduce impacts on human health and the economy.

##### **Policies:**

- CO 4.1:** Because developments can add to the wind hazard (due to increased dust, the removal of wind breaks, and other factors), the County will require either as mitigation measures in the appropriate environmental analysis required by the County for the development proposal or as conditions of approval if no environmental document is required, that

developments in areas identified as susceptible to wind hazards to address site-specific analysis of:

- a. Grading restrictions and/or controls on the basis of soil types, topography or season.
- b. Landscaping methods, plant varieties, and scheduling to maximize successful revegetation.
- c. Dust-control measures during grading, heavy truck travel, and other dust generating activities.

**CO 4.2:** Coordinate air quality improvement technologies with the South Coast Air Quality Management District (SCAQMD) and the Mojave Air Quality Management District (MAQMD) to improve air quality through reductions in pollutants from the region.

**CO 4.4:** Because congestion resulting from growth is expected to result in a significant increase in the air quality degradation, the County may manage growth by insuring the timely provision of infrastructure to serve new development.

**CO 4.5:** Reduce emissions through reduced energy consumption.

Land Use Element

**Goal:**

**LU 8:** Beneficial facilities, such as schools, parks, medical facilities, sheriff and fire stations, libraries, and other public uses, as well as potentially hazardous sites, will be equitably distributed throughout the County.

**Policy:**

**LU 8.2** Review development proposals to minimize impacts, such as air emissions, on sensitive receptors.

## IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

### REGIONAL AIR QUALITY

Under CEQA, the SCAQMD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the FCAA, the SCAQMD has adopted federal attainment plans for O<sub>3</sub> and PM<sub>10</sub>. The SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

SCAQMD's *CEQA Air Quality Handbook* also provides significance thresholds to assess the impact of Project related air pollutant emissions. Table 4.3-3, *SCAQMD Regional Pollutant Emission Thresholds of Significance*, presents these significance thresholds. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds is considered to have a less than significant effect on regional air quality. The SCAQMD is in the process of updating the thresholds.

**Table 4.3-3: SCAQMD Regional Pollutant Emission Thresholds of Significance**

Phase	Pollutant (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction	75	100	550	150	150	55
Operation	55	55	550	150	150	55
CO = carbon monoxide; VOC = volatile organic compounds; NO <sub>x</sub> = nitrogen oxides; PM <sub>10</sub> = particulate matter smaller than 10 microns; PM <sub>2.5</sub> = particulate matter smaller than 2.5 microns						
Source: South Coast Air Quality Management District, <i>CEQA Air Quality Handbook</i> , November 1993.						

### LOCAL AIR QUALITY

#### LOCALIZED SIGNIFICANCE THRESHOLDS

Localized Significance Thresholds (LSTs) were developed in response to the SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (revised July 2008) for

guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with proposed projects. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors.

#### *LOCALIZED CO*

In addition, a project would result in a local air quality impact if it results in increased traffic volumes and/or decreases in Level of Service (LOS) that would result in an exceedance of the CO ambient air quality standards of 20 parts per million (ppm) for 1-hour CO concentration levels, and 9 ppm for 8-hour CO concentration levels. If the CO concentrations at potentially impacted intersections with a project are lower than the standards, then there is no significant impact. If future CO concentrations with a project are above the standard, then the project would have a significant local air quality impact.

#### *CUMULATIVE EMISSIONS*

The SCAQMD's 2012 AQMP was prepared to accommodate growth, meet state and federal air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. According to the SCAQMD CEQA Air Quality Handbook, project-related emissions that fall below the established construction and operational thresholds should be considered less than significant unless there is pertinent information to the contrary.

If a project exceeds these emission thresholds, the SCAQMD CEQA Air Quality Handbook states that the significance of a project's contribution to cumulative impacts should be determined based on whether the rate of growth in average daily trips exceeds the rate of growth in population.

*CEQA SIGNIFICANCE CRITERIA*

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by Appendix G of the State *CEQA Guidelines*, as amended, and used by the County of San Bernardino 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:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Expose sensitive receptors to substantial pollutant concentrations;
- Conflict with or obstruct implementation of the applicable air quality plan;
- Create objectionable odors affecting a substantial number of people;
- 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 O<sub>3</sub> precursors) (refer to *Cumulative Impacts*).

Based on these standards/criteria, the Project's effects 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.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?</i>
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### Air Quality Standards – Short Term

**Impact 4.3-1      Implementation of the Project would not violate air quality standards or substantially contribute to an existing or projected air quality violation during construction.**

Short-term air quality impacts are predicted to occur during grading and construction activities associated with implementation of the proposed Project. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading; and
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew.

The Project site is currently occupied by the former Santa's Village. The Project would build upon the existing infrastructure, buildings, and landscape of the Project site. The Project involves the following primary components: resurfacing of the existing parking lot; park construction and minor building modifications (carpentry activities); construction of the meadow and campground; and SR-18 intersection improvements. For the purposes of this analysis, the Project is assumed to begin construction in August 2016 and be completed by the end of December 2016. The estimated earthwork would require approximately 2,000 cubic yards of cut from campground and meadow grading activities (to be used for SR-18 intersection improvements), and 12,000 cubic yards of soil import for SR-18 intersection improvements.

Construction would require pavers, rollers, and tractors/loaders/backhoes for resurfacing/paving of the parking lot; minimal equipment (mostly hand tools) for building renovations at the park; an excavator, two dump trucks, rubber tired loader, and a skid steer for meadow construction; pavers, paving equipment, and rollers for paving at the park and SR-18 intersection improvements; rubber tired loaders, skid steer loaders,

excavators, and tractors/loaders/backhoes for SR-18 intersection improvements grading; and tractors/loaders/backhoes and graders for SR-18 intersection construction. Emissions for each construction phase have been quantified based upon the phase durations and equipment types. The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model (CalEEMod). Refer to Appendix C, *Air Quality/Greenhouse Gas Emissions Data*, for the CalEEMod outputs and results. Table 4.3-4, *Maximum Daily Pollutant Emissions During Construction*, presents the anticipated daily short-term construction emissions. Air pollutants would be emitted by construction equipment and fugitive dust would be generated during grading activities for the Project. Emissions during the phases of construction were calculated using the CalEEMod program.

**Table 4.3-4: Maximum Daily Pollutant Emissions During Construction**

Emissions Source	Daily Pollutant Emissions (lbs/day) <sup>1</sup>					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>2016</b>						
Unmitigated Emissions	4.51	49.26	35.96	0.05	9.40	5.65
Mitigated Emissions	4.51	49.26	35.96	0.05	5.48	3.70
<i>SCAQMD Construction Thresholds</i>	75	100	550	150	150	55
<b><i>Mitigated Emissions Exceed Thresholds?</i></b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>2017</b>						
Unmitigated Emissions	55.90	48.99	96.72	0.22	15.34	5.27
Mitigated Emissions	55.90	48.99	96.72	0.22	12.34	4.53
<i>SCAQMD Construction Thresholds</i>	75	100	550	150	150	55
<b><i>Mitigated Emissions Exceed Thresholds?</i></b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
1. Emissions were calculated using CalEEMod, as recommended by the SCAQMD. 2. The reduction/credits for construction emission mitigations are based on mitigation included in the CalEEMod model and as typically required by the SCAQMD through Rule 403. The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads three times daily; limit speeds on unpaved roads to 15 miles per hour. Refer to Appendix C, <i>Air Quality/Greenhouse Gas Emissions Data</i> , for assumptions used in this analysis.						

**Fugitive Dust Emissions**

Fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) 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<sub>x</sub> and SO<sub>x</sub> 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<sub>10</sub> generated as a part of fugitive dust emissions.

CalEEMod calculates PM<sub>10</sub> and PM<sub>2.5</sub> fugitive dust as part of the site earthwork activity emissions; refer to Table 4.2-4. 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 SCAQMD Rule 403, such that excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures. In addition, SCAQMD Rule 402 is required for implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site and after implementation would reduce short-term fugitive dust impacts on nearby sensitive receptors. With adherence to Mitigation Measure AQ-1 and other dust control techniques, the maximum mitigated particulate matter concentration would be 12.34 pounds per day (lbs/day) for PM<sub>10</sub> and 4.53 lbs/day. Although the unmitigated particulate matter levels are below the SCAQMD thresholds absent of specific dust reduction measures, Mitigation Measures AQ-1 and AQ-2 are recommended to ensure compliance with SCAQMD rules and regulations (i.e., Rules 402 and 403).

### **ROG Emissions**

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O<sub>3</sub> precursors. As shown in Table 4.3-4, ROG emissions would be below SCAQMD thresholds and impacts would be less than significant.

### **Construction Exhaust Emissions**

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the Project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. 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<sub>x</sub>, SO<sub>x</sub>, 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 4.3-4, construction-related mitigated emissions would not exceed the SCAQMD's daily pollutant thresholds. Implementation of Mitigation Measures AQ-1 would lessen construction-related impacts by requiring measures to reduce air pollutant emissions from construction activities. These measures call for the maintenance of construction equipment, the use of non-polluting and non-toxic building equipment, and minimizing fugitive dust. With implementation of Mitigation Measure AQ-1, construction related air emissions would be less than significant.

**Mitigation Measures:****MM AQ-1**

Prior to issuance of any Grading Permit, the San Bernardino County Land Use Services Department shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD 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 every three hours during daily construction activities and when dust is observed migrating from the Project site to prevent excessive amounts of dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent

watering shall occur if dust is observed migrating from the site during site disturbance;

- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
- Track-out devices such as gravel bed track-out aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes. Alternatively, a wheel washer shall be used at truck exit routes;
- On-site vehicle speed shall be limited to 15 miles per hour;
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site; and
- Trucks associated with soil-hauling activities shall avoid residential streets and utilize County-designated truck routes to the extent feasible.

### **Air Quality Standards – Long Term**

**Impact 4.3-2      Implementation of the Project would not violate air quality standards or substantially contribute to an existing or projected air quality violation during long-term operations.**

Operational emissions generated by both stationary and mobile sources would result from normal daily activities on the Project site (i.e., increased concentrations of O<sub>3</sub>, PM<sub>10</sub>, and CO). Stationary area source emissions would be generated by the consumption of

natural gas for space and water heating devices, 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.

### 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<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are all pollutants of regional concern (NO<sub>x</sub> and ROG react with sunlight to form O<sub>3</sub> [photochemical smog], and wind currents readily transport SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Mobile source emissions are dependent on trip length or vehicle distance (miles) traveled (VMT) and are modeled in CalEEMod. CalEEMod utilizes trip lengths based on the location and urbanization selected on the project characteristic screen. These values are supplied by the air districts or use a standardized default average for the state, but are not applicable for a theme park use such as the proposed Project, which draws customers from a wide geographic range. The proposed Project is unique in that mileage is not standardized and the Project's *Traffic Impact Analysis* (prepared by Gibson Transportation Consulting, May 2016) recognizes that trip origin may vary. Emissions calculations were made for a varying round trip mileage utilizing origin locations for park visitors specified in the *Traffic Impact Analysis*. According to the *Traffic Impact Analysis*, the proposed Project would typically generate approximately 1,408 daily trips. For air quality modeling purposes, the weekend/peak day total of 2,600 daily trips was conservatively modeled for weekends, and the summer weekday total of 562 trips was modeled for the weekday. These values represent the most conservative number of daily trips provided in the *Traffic Impact Analysis*, and reflect a worst-case scenario. Table 4.3-5, *Long-Term Operational Air Emissions*, presents the anticipated mobile source emissions for ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from CalEEMod.

**Table 4.3-5: Long-Term Operational Air Emissions**

Emissions Source	Emissions (pounds per day) <sup>1, 2,3</sup>					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Proposed Unmitigated Emissions</b>						
Area	20.63	0.00	0.00	0.00	0.00	0.00
Energy <sup>4</sup>	0.00	0.01	0.01	0.00	0.00	0.00
Mobile	7.65	33.78	129.70	0.44	40.35	11.22
<b>Total Proposed Unmitigated Emissions</b>	<b>28.28</b>	<b>33.79</b>	<b>129.71</b>	<b>0.44</b>	<b>40.35</b>	<b>11.22</b>
<b>SCAQMD Threshold</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Is Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Notes:						
<ol style="list-style-type: none"> <li>1. Based on CalEEMod results, worst-case seasonal emissions for area and mobile emissions have been modeled.</li> <li>2. The numbers may be slightly off due to rounding.</li> <li>3. Refer to Appendix C, <i>Air Quality and Greenhouse Gas Emissions Data</i>, for assumptions used in this analysis.</li> <li>4. The Project only includes 12,389 square feet of buildings that would use energy. The remainder of the park and attractions (including campground) are not anticipated to require additional energy.</li> </ol>						

Stationary Source Emissions

Stationary source emissions would be generated due to an increased demand for electrical energy and natural gas with the development of the proposed Project refer to Table 4.3-5. 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 Basin and western United States, and their emissions contribute to the total regional pollutant burden. The primary use of natural gas 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.

Impact Conclusion

As shown in Table 4.3-5, the net emissions generated by mobile, area, and energy sources associated with implementation of the Project would not exceed established SCAQMD thresholds for ROG, NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. As such, a less than significant impact would occur in this regard.

<i>Threshold:</i>	<i>Would the Project expose sensitive receptors to substantial pollutant concentrations?</i>
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### Localized Significance Thresholds

**Impact 4.3-3**      **Development associated with implementation of the proposed Project could result in localized emissions impacts or expose sensitive receptors to substantial pollutant concentrations. This impact would be *less than significant*.**

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised October 2009]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level projects. The SCAQMD provides the LST lookup tables for one, two, and five acre projects emitting CO, NO<sub>x</sub>, PM<sub>2.5</sub>, or PM<sub>10</sub>. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The Project site is located within Sensitive Receptor Area (SRA) 37, Central San Bernardino Mountains.

The closest sensitive receptors to the Project site are the residential uses that are located approximately 675 feet (206 meters) to the northwest of the Project site. Therefore, the localized emissions thresholds for a distance of 200 meters was conservatively used for the localized emissions analysis. Table 4.3-6, *Localized Significance of Emissions*, depicts the mitigated construction-related emissions for NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> compared to the LSTs for SRA 37, Central San Bernardino Mountains. It is noted that Table 4.3-6 uses the 5-acre LST threshold for screening purposes.

**Table 4.3-6: Localized Significance of Emissions**

On-Site Sources	Pollutant (pounds/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>CONSTRUCTION <sup>1</sup></b>				
<b>2016</b>				
Total Mitigated On-Site Emissions <sup>2</sup>	48.84	32.70	5.25	3.63
<i>Localized Significance Threshold</i>	486	8,405	106	35
<b><i>Thresholds Exceeded?</i></b>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
<b>2017</b>				
Total Mitigated On-Site Emissions <sup>3</sup>	15.00	9.02	0.94	0.87
<i>Localized Significance Threshold</i>	486	8,405	106	35
<b><i>Thresholds Exceeded?</i></b>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
<b>OPERATIONS</b>				
Area Source Emissions	20.63	0.00	0.00	0.00
<i>Localized Significance Threshold</i>	486	8,405	26	9
<b><i>Thresholds Exceeded?</i></b>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Notes:				
1. The Localized Significance Threshold was determined using Appendix C of the SCAQMD <i>Final Localized Significant Threshold Methodology</i> guidance document for pollutants NO <sub>x</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> . The Localized Significance Threshold conservatively uses the 5 acre threshold, the 200 meter distance threshold, and the source receptor area (SRA 37).				
2. The highest mitigated on-site NO <sub>x</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions are from the Amusement Park Grading phase.				
3. The highest mitigated on-site NO <sub>x</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions are from the Highway 18 Construction phase.				

Additionally, for Project operations, the five-acre threshold was conservatively used for the receptors located 675 feet (206 meters) away. The LST analysis only includes on-site sources; therefore, the operational emissions shown include area sources. As shown in Table 4.3-6, construction mitigated emissions would not exceed the LST screening threshold for NO<sub>x</sub>, CO, PM<sub>10</sub>, and/or and PM<sub>2.5</sub> during construction of the Project. Additionally, operational emissions would not exceed the LSTs for SRA 37. Therefore, localized significance impacts for proposed Project operations would be less than significant.

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### Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affect residents, school children, hospital patients, the elderly, etc.). The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service LOS D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hotspots are typically produced at intersections.

The Project site is located in the South Coast Air Basin (Basin), which is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide* (CO Plan) for the SCAQMD's *2003 Air Quality Management Plan*. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin, and would likely experience the highest CO concentrations. Thus, CO analysis within the CO Plan is utilized in a comparison to the proposed Project, since it represents a worst-case scenario with heavy traffic volumes within the Basin.

Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 ppm), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic

(ADT) volume of approximately 100,000 vehicles per day. As CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any intersections within the vicinity of the Project site due to the low volume of traffic (1,408 daily trips) that would occur as a result of Project implementation. Therefore, impacts would be less than significant in this regard.

<i>Threshold:</i>	<i>Would the Project conflict with or obstruct implementation of the applicable air quality plan?</i>
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**Impact 4.3-4            Implementation of the Project would not conflict with or obstruct implementation of applicable air quality plans.**

On December 7, 2012, the SCAQMD Governing Board approved the 2012 AQMP, which outlines its strategies for meeting the NAAQS for PM<sub>2.5</sub> and ozone. The 2012 AQMP was forwarded to CARB for inclusion into the California State Implementation Plan (SIP) in January 2013. Subsequently, the 2012 AQMP was submitted to the EPA as the 24-hour PM<sub>2.5</sub> SIP addressing the 2006 PM<sub>2.5</sub> NAAQS and as a limited update to the approved 8-hour ozone SIP. The 1-hour ozone attainment demonstration and vehicle miles traveled (VMT) emissions offset demonstration was submitted through CARB to the EPA. According to the SCAQMD's 2012 AQMP, two main criteria must be addressed.

**Criterion 1:**

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

- a) *Would the project result in an increase in the frequency or severity of existing air quality violations?*

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Impact Statement 4.2-2,

below, localized concentrations of CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would be less than significant during Project operations. Therefore, the proposed Project would not result in an increase in the frequency or severity of existing air quality violations. Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

*b) Would the project cause or contribute to new air quality violations?*

As discussed in Impact Statement 4.3-2, operations of the proposed Project would result in emissions that would be below the SCAQMD operational thresholds. Therefore, the proposed Project would not have the potential to cause or affect a violation of the ambient air quality standards.

*c) Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

The proposed Project would result in less than significant impacts with regard to localized concentrations during Project operations. As such, the proposed Project would not delay the timely attainment of air quality standards or 2012 AQMP emissions reductions.

**Criterion 2:**

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2012 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2012

AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

- a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

In the case of the 2012 AQMP, several sources of data form the basis for the projections of air pollutant emissions including: the *County of San Bernardino General Plan 2007* (General Plan), *County of San Bernardino Development Code* (Development Code), SCAG's *Growth Management Chapter of the Regional Comprehensive Plan* (RCP), and SCAG's *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). The RTP/SCS also provides socioeconomic forecast projections of regional population growth. The County's General Plan Land Use Map designates the Project site as "Single Residential" (RS-14M) and "Special Development", and the County's *Land Use Zoning Districts Map* designates the site as "Special Development Residential" (SD-RES). According to the County's Development Code, the Project site's SD-RES zoning designation allows for recreational uses such as campgrounds and rural sports and recreation under a Conditional Use Permit (CUP). The Project proposes to operate an outdoor amusement park and campground at the former Santa's Village. The Project would build upon the existing infrastructure at Santa's Village, and provide hiking, biking, zip lining, and other outdoor facilities for its patrons. As such, the use of the Project site would remain similar to existing conditions (outdoor amusement park). The proposed Project will change the Land Use Zoning District from RS-14M and SD-RES to Lake Arrowhead/Rural Commercial (LA/CR). The (LA/CR) Land Use District provides sites in rural areas where a range of commercial services intermixed with residential uses can be established which are limited in scope and intensity and meet the need of the remote population and the traveling public. The proposed Project does not include development of additional residences. As such, the Project would be consistent with the County's General Plan and Development Code, and assumed emissions for the Project site. Thus, the Project is generally consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RCP. The

population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the cities; these are used by SCAG in all phases of implementation and review. As SCAQMD incorporated these same projections into the 2012 AQMP, it can be concluded that the Project would be consistent with the projections. As a result, the Project would not exceed growth assumptions within the County's General Plan or Development Code. Therefore, the Project would be consistent with the 2012 AQMP and a less than significant impact would occur.

*b) Would the project implement all feasible air quality mitigation measures?*

Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Impact Statement 4.3-2 and 4.3-3. As such, the proposed Project would meet this AQMP consistency criterion.

*c) Would the project be consistent with the land use planning strategies set forth in the AQMP?*

The Project is consistent with the County's Development Code zoning designations for the site, and would serve to implement various County General Plan policies. Compliance with emission reduction measures identified by the SCAQMD would be required as identified in Impact Statement 4.3-2 and Impact Statement 4.3-3. As such, the proposed Project meets this AQMP consistency criterion.

In conclusion, the determination of 2012 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed Project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Also, the Proposed project would be consistent with the goals and policies of the AQMP for control of fugitive dust. As discussed above, the proposed Project's long-term influence would also be consistent with the SCAQMD and SCAG's goals and policies and is, therefore, considered consistent with the 2012 AQMP.

<i>Threshold:</i>	<i>Would the Project create objectionable odors affecting a substantial number of people?</i>
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**Impact 4.3-5      Implementation of the Project would not create objectionable odors affecting a substantial number of people.**

The Project does not contain land uses typically associated with emitting objectionable odors (i.e. wastewater treatment plants, refuse transfer stations, dairies, etc.). Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities, and the temporary storage of typical solid waste (refuse) associated with the Project's long-term operational uses. Standard SCAQMD construction requirements would minimize odor impacts resulting from construction activity. Any construction odor emissions generated would be temporary, short-term, and intermittent in nature. Any temporary odorous emissions would cease upon completion of construction activity. Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the County's solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant.

## CUMULATIVE IMPACTS

### SHORT-TERM CONSTRUCTION AIR EMISSIONS

**Impact 4.3-6      Short-term construction activities associated with the implementation of the proposed Project and other related cumulative projects, would not result in significant air pollutant emission impacts.**

The SCAQMD neither recommends quantified analyses of cumulative construction emissions, nor does it provide separate methodologies or thresholds of significance to be used to assess cumulative construction impacts. The SCAQMD significance thresholds for construction are intended to meet the objectives of the AQMP to ensure the Federal and California NAAQS are not exceeded. As the Project Applicant has 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. In addition, construction-related criteria pollutant emissions are temporary in nature and cease following Project completion. Project compliance with SCAQMD rules and regulations and Mitigation Measure AQ-1 would reduce construction-related impacts to less than significant levels. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include cumulative projects in the Project vicinity. Therefore, as cumulative projects would be required to reduce their emissions per SCAQMD rules and mandates, cumulative construction emissions would not contribute to an exceedance of the Federal or California NAAQS and would, therefore, comply with the goals of the 2012 AQMP. Thus, it can be reasonably inferred that the Project-related construction activities, in combination with those from other projects in the area, would not deteriorate the local air quality and would not result in cumulative construction-related impacts.

### **LONG-TERM OPERATIONAL AIR EMISSIONS**

**Impact 4.3-7            Development associated with implementation the proposed Project and other related cumulative projects would not result in significant impacts pertaining to operational air emissions.**

As discussed previously, the proposed Project would not result in long-term air quality impacts, since emissions would not exceed the SCAQMD adopted operational thresholds. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. 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.

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## CONSISTENCY WITH REGIONAL PLANS

**Impact 4.3-8**      **Development associated with the proposed Project and other related cumulative projects would not conflict with or obstruct implementation of the applicable air quality plan.**

The County of San Bernardino is subject to the SCAQMD's 2012 AQMP. Additionally, the proposed Project is located within the San Bernardino County subregion of the SCAG 2012-2035 RTP/SCS, which governs population growth. The *County of San Bernardino 2007 General Plan* is consistent with the 2012-2035 RTP/SCS, and since the 2012-2035 RTP/SCS is consistent with the 2012 AQMP, growth under the *General Plan* is consistent with the 2012 AQMP. The *County of San Bernardino 2007 General Plan* designates the Project site as Single Residential (RS-14M) and Special Development (SD-RES). The proposed Project includes a General Plan Amendment to change the Official Land Use District to Rural Commercial (LA/CR). The proposed Project would result in less growth than that allowed by the *County of San Bernardino 2007 General Plan*, and therefore, would not increase the amount of growth assumed in the 2012 AQMP. Therefore, development in the County would not conflict or obstruct the 2012 AQMP. A less than significant impact would occur in this regard.

## OBJECTIONABLE ODORS

**Impact 4.3-9**      **Development associated with the proposed Project and other related cumulative projects would not create objectionable odors affecting a substantial number of people.**

Construction activities in accordance with cumulative development and the proposed Project have the potential to generate airborne odors due to the construction equipment. However, these emissions would occur during daytime hours and would be isolated to the vicinity of the construction site. Odor emissions would be of short duration and temporary in nature.

As stated previously, the Project proposes an outdoor amusement park facility, which is not considered to be an odor-generating land use. Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the

County's solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant. Additionally, adherence to SCAQMD and County rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis, as applicable. Therefore, odor impacts associated with cumulative projects would not be cumulatively considerable.

## **4.4 BIOLOGICAL RESOURCES**

This section evaluates the existing biological resource setting and the potential effects caused by implementation of the Proposed Project including those on sensitive species and jurisdictional determinations. The descriptions found in this section include, but are not limited to, information found in the analysis from the *Habitat Assessment* (HA) dated January 2016 (Appendix D) and the *Jurisdictional Delineation* (JD) dated January 2016 (Appendix D). All studies conducted are consistent with standards pursuant to the CEQA, the USFWS, the ACOE, and the CDFW, where appropriate. The NRCS Conservation Plan for Hencks meadow is also included in Appendix D.

## **ENVIRONMENTAL SETTING**

### **EXISTING CONDITIONS**

The field investigation conducted in November of 2014 and habitat suitability assessments conducted in April and September of 2015 for southern rubber boa, San Bernardino flying squirrel, mountain yellow-legged frog, and California spotted owl provided information on the existing conditions of the site and the potential for sensitive biological resources to occur. Prior to the field investigations a literature search was conducted to determine the potential of biological resources occurring onsite through previously observed species near the site. Resources reviewed during the literature search included Calflora Database, California Department of Fish and Wildlife (CDFW) compendia of special-status species, and United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Solid Survey, and USFWS Critical Habitat designations for Threatened and Endangered Species. The results of the HA and findings from the literature review are in the discussion below.

The on-site elevation within the project site ranges from approximately 5,660 to 5,730 feet above mean sea level and generally slopes to the northeast. The southern portion of the project site, south of State Route 18, abuts the steep mountain face of the San Bernardino Mountains. According to the USDA NRCS Soil Survey, on-site soils consist of Morical-

Wind River families' complex and Springdale family-Lithic Xerorthents association. It should be noted that the project site was utilized as a staging/processing area for harvested timber since 2003. As a result, the on-site soils and vegetation within the southern portion of the project site have been heavily disturbed.

The project site is located in a primarily undeveloped area approximately 1.5 miles southeast of the community of Lake Arrowhead. In the vicinity of the project site, land uses include residential and commercial development, and undeveloped forest land.

The majority of the project site is undeveloped consisting of naturally occurring habitats which will remain undeveloped. Dirt fire access roads traverse the site. These existing dirt access roads are proposed to be used for various mountain biking/hiking trail activities. The developed portions of the project site include existing buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955. The various buildings associated with the amusement park have remained intact since the Park's closure in 1998. The proposed new land use will renovate these existing buildings.

After the Park's closure, the parking lot on the north side of SR-18 (western portion of the project site) and the overflow parking lot south of SR-18 (southern portion of the project site) provided a storage yard and staging area for bark beetle infested lumber. The infested wood was chipped and spread out over the paved parking lots.

## VEGETATION

The majority of the project site has been undisturbed from previous development. Five plant communities were observed on-site: mixed conifer, willow riparian scrub, chaparral, grassland (meadow), and pond (Refer to Exhibit 7, *Vegetation* in the HA, Appendix D). In addition, there are two non-vegetative land cover types that would be classified as disturbed and developed. These six areas are described in further detail below.

***Mixed Conifer***

The mixed conifer plant community is found throughout the site and is probably the most prevalent of the four. This plant community is dominated by Jeffery pine (*Pinus jeffreyi*), sugar pine (*Pinus lambertiana*), incense cedar (*Calocedrus decurrens*), white silver fir (*Abies concolor*), and California black oak (*Quercus kelloggii*).

***Willow Riparian Scrub***

The willow riparian scrub community is located in the northwestern portion of the project site within the undisturbed portion of Hooks Creek, just south of the on-site pond, and is also found on the slopes surrounding the on-site pond. This plant community is dominated by arroyo willow (*Salix lasiolepis*) with cottonwood (*Populus fremontii*), mulefat (*Baccharis salicifolia*), California mugwort (*Artemisia douglasiana*), sparse cattails (*Typha* sp.), sticktight (*Bidens frondosa*), stinging nettle (*Urtica dioica*), and northern water plantain (*Alisma triviale*).

***Chaparral***

The chaparral plant community is located on the slopes on the southern end of the project site on the south-facing mountain face of the San Bernardino Mountains. The plant community is dominated by large shrubs including lilac (*Ceanothus* spp.) and manzanita (*Arctostaphylos* sp.), with ripgut brome (*Bromus diandrus*) in some intershrub spaces and burned coniferous trees sparsely scattered throughout.

***Grassland (Meadow)***

The grassland plant community is found in the meadow area on the southwestern portion of the project site, north of the existing parking lot. This area is referred to as "Hencks Meadow." This plant community is dominated by native and nonnative grass and meadow plant species. Plant species observed include spikerush (*Eleocharis* sp.), spiny rush (*Juncus acutus*), Pacific rush (*Juncus effuses* var. *pacificus*), ripgut brome, downey chess (*Bromus tectorum*), stinging nettle (*Urtica dioica*), horehound (*Marrubium vulgare*), and bull thistle (*Cirsium vulgare*), cattails, hillside pea (*Lathyrus vestitus*). The grassland (meadow) area has been subject to frequent human disturbances over the years.

***Pond***

A pond is found on the northwest portion of the project site that was established as a result of the damming of Hooks Creek. The proposed project includes the realignment, expansion, and restoration of the upstream portions of Hooks Creek that flow into the pond.

***Disturbed***

The disturbed areas on site no longer support vegetation or comprise a plant community. Disturbed areas are found in association with the existing buildings, the parking lot on the south side of SR-18, and the parking lot between the meadow and the willow riparian scrub plant community. The disturbed area inside Santa's Village consists mainly of dirt paths while the two parking lots are covered in wood chips with sparse native/non-native shrubs and grasses. Dirt fire access roads located throughout the property are also included as disturbed areas.

***Developed***

The developed portions of the project site include existing buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955. The various buildings associated with the amusement park have remained intact since the Park's closure in 1998.

**SENSITIVE BIOLOGICAL RESOURCES**

The CNDDDB was queried for reported locations of listed and sensitive plant and wildlife species as well as sensitive natural plant communities in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangle. A search of published records of these species was conducted within this quadrangle using the CNDDDB Rarefind 5 online software and CNDDDB Quickview Tool. The California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The HA evaluated the conditions of the habitats within the boundaries of the project site to determine if the existing plant communities at the time of this survey have the potential to provide suitable habitats for sensitive plant and wildlife species.

The HA identified forty-four sensitive plant species, twenty-four sensitive wildlife species, and three sensitive plant communities as having the potential to occur within the Harrison Mountain quadrangle. These sensitive 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 Table B1: *Potentially Occurring Sensitive Biological Resources* of the HA. Exhibit 4.4-1 below provides details of the analysis and field surveys regarding the potential occurrence of listed and sensitive plant and wildlife species within the project site.

### **SENSITIVE PLANTS**

Forty-four sensitive plant species have been recorded in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. The existing developed areas associated with the old Santa's Village and supporting infrastructure have mechanically disturbed surface soils, and removed naturally occurring habitats. However, most of the project site, particularly the northern half of it north of the pond, is undeveloped and provides undisturbed native plant communities. Many of the plant species that have been documented in these areas are unlikely to occur within the habitats and/or specific conditions located on-site. Based on the habitat requirements for species and the availability and quality of habitats needed by each sensitive plant species, it was determined that the undeveloped areas within the survey area have a moderate potential to provide support silver-haired ivesia (*Ivesia argyrocoma* var. *argyrocoma*), Parish's yampah (*Perideridia parishii* ssp. *parishii*), Laguna Mountains jewelflower (*Streptanthus bernardinus*), and a low potential to provide habitat for southern jewelflower (*Streptanthus campestris*), refer to Table 4.4-1, *Potentially Occurring Sensitive Plant Species*. None of these sensitive plant species occur on or within the immediate vicinity of the project site and are not expected to be present on-site. The other plant species not mentioned above are presumed absent from the project site due to the lack of suitable habitat.

***Silver-haired Ivesia***

Silver-haired ivesia is a perennial herb that flowers between June and August. It is not state or federally listed. However, it is designated by the California Native Plant Society's with the Rare Plant Rank 1B.2, indicating that is rare, threatened, or endangered in California and elsewhere, and is considered fairly threatened in California, with 20-80% of its known occurrences threatened. It is not endemic to California and also occurs in Baja California. In California it is only known to occur in San Bernardino County, where it can be found in alkaline meadows and seeps, pebble plains (where it is an early colonizer of disturbed pebble plains), and upper montane coniferous forest between 5,000 and 9,711 feet in elevation. Locally it is known to occur in the Big Bear and Holcomb Valleys in the San Bernardino Mountains. According to the HA, there are five records of silver-haired ivesia within the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5- minute quadrangles. The closest occurrence is approximately 2.4 miles west of the project site, approximately 2 miles southwest of Lake Arrowhead. Silver-haired ivesia has a moderate potential to occur within the project site.

***Parish's Yampah***

Parish's yampah is a perennial herb that flowers between June and August. It is not state or federally listed. However, it is designated by the CNPS with the Rare Plant Rank 2B.2, indicating that is rare, threatened, or endangered in California but more common elsewhere, and is considered fairly threatened in California, with 20-80% of its known occurrences threatened. It is not endemic to California and also occurs in Arizona, New Mexico, and Nevada. In California it is only known to occur in San Bernardino County, where it can be found in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest between 4,806 and 9,843 feet in elevation. Locally it is known to occur in the Holcomb Valley, south of Big Bear Lake, north of Lake Arrowhead, southeast of Green Valley Lake, near South Fork Meadows, Big Meadows, in and around the Snow Valley Summer Home Tract, and at Bluff Meadow.

According to the HA, there are seventeen records of Parish's yampah within the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5- minute quadrangles. The closest occurrence is approximately 1.5 miles west of the project site, although it was

not observed during a recent (2004-2005) post-fire survey of this area. Parish's yampah has a moderate potential to occur within the project site.

***Laguna Mountains Jewelflower***

Parish's yampah is a perennial herb that flowers between May and August. It is not state or federally listed. However, it is designated by the CNPS with the Rare Plant Rank 4.3, indicating that it is a plant of limited distribution and is not very threatened in California, with less than 20% of its known occurrences threatened. It is believed to be endemic to California, where it is only known to occur in Riverside, San Bernardino, and San Diego Counties. It is found in chaparral and lower montane coniferous forest between 2,198 and 8,202 feet in elevation. Locally it is known to occur in the eastern Transverse and Peninsular Ranges. On the San Bernardino National Forest, it occurs near Green Valley Lake, Little Green Valley, Crab Flats, Snow Valley, Running Springs, Cleghorn Ridge, Lake Arrowhead, north and east of Fawnskin, and below the Big Bear Dam.

According to the HA, there are seven records of Laguna Mountains jewelflower within the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. The closest occurrence is approximately 0.75 mile west of the project site just south of SR-18 at the Switzer Park Picnic Area. Laguna Mountains jewelflower has a moderate potential to occur within the project site.

**Table 4.4-1: Potentially Occurring Sensitive Plant Species**

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<b>Plant Species</b>				
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	Fed: <b>END</b> CA: <b>END</b> CNPS: 1B.1	Occurs in coastal bluff scrub and on coastal dunes in moist, sandy depressions along and near the Pacific Ocean. From 3 to 164 feet in elevation.	No	<b>Presumed absent.</b> There is no suitable habitat onsite.

Scientific Name Common Name	Status		Habitat	Observed Onsite	Potential to Occur
<i>Ivesia argyocoma</i> var. <i>argyocoma</i> silver-haired ivesia	Fed: CA: CNPS:	None None 1B.2	Found in meadows, pebble plains, and upper montane coniferous forest, often with other rare plants. From 4,790 to 9,711 feet in elevation.	No	<b>Low.</b> There is marginal habitat.
<i>Perideridia parishii</i> ssp. <i>parishii</i> Parish's yampah	Fed: CA: CNPS:	None None 2B.2	Found in lower montane coniferous forest, meadows, and upper montane coniferous forest in damp meadows or along streambeds. It often grows in areas with an open pine canopy. From 4,806 to 9,843 feet in elevation.	No	<b>Low.</b> There is marginal habitat.
<i>Streptanthus bernardinus</i> Laguna Mountains jewelflower	Fed: CA: CNPS:	None None 4.3	Grows in chaparral and lower montane coniferous forest on clay or decomposed granite soils. It is sometimes found in disturbed areas such as streamsides or roadcuts. From 4,724 to 8,202 feet in elevation.	No	<b>Low.</b> There is marginal habitat.
<i>Streptanthus campestris</i> southern jewelflower	Fed: CA: CNPS:	None None 1B.3	Occurs in open, rocky areas in chaparral, lower montane coniferous forest, and pinyon-juniper woodland. From 1,969 to 9,154 feet in elevation.	No	<b>Low.</b> There is marginal habitat.

## SENSITIVE WILDLIFE SPECIES

Twenty-two sensitive wildlife species have been recorded in the Harrison Mountain, Lake Arrowhead, Butler Peak and Keller Peak USGS 7.5-minute quadrangles. A single California spotted owl was observed on-site during the September 23, 2015 survey and this species is confirmed as present. Based on the focused habitat suitability assessments that were conducted in 2015 and the data provided by the NRCS, both southern rubber boa and San Bernardino flying squirrel are assumed to be present on-site. Based on habitat requirements for specific species and the availability and quality of habitats needed by each sensitive wildlife species, it was determined that the project site has a high potential to support Andrew's marble butterfly (*Euchloe hyantis andrewsi*), and a moderate to high potential to support bald eagle (*Haliaeetus leucocephalus*), lodgepole chipmunk (*Neotamias speciosus speciosus*), and white-eared pocket mouse (*Perognathus alticolus alticolus*). There is a low potential to support rosy boa (*Charina trivirgata*), coast horned lizard (*Phrynosoma blainvillii*), American badger (*Taxidea taxus*), and two-striped garter snake (*Thamnophis hammondi*). The other wildlife species not mentioned above are presumed absent from the site due to a lack of suitable habitat. Species accounts are provided below for the four "focus" species, as well as for those species determined to have at least a moderate potential to occur within the project site.

### ***Southern Rubber Boa (SRB)***

The SRB has been designated by the CDFW as a threatened species under the California Endangered Species Act, and has been designated by the USFS Regional Forester as a Forest Service sensitive species. Although it is currently not protected under the federal Endangered Species Act, the USFWS published a 90-day finding in September 2015 on a petition to list the SRB as an endangered or threatened species and found that the petition presented substantial information indicating that the petitioned action may be warranted, thus initiating a 12-month review period. The SRB inhabits oak-conifer and mixed-conifer forests at elevations between 5,000 to 8,200 feet where rocks and logs or other debris provide shelter. It is semi-fossorial with either nocturnal or crepuscular tendencies, making it difficult to find in a general diurnal field survey. It is restricted to the San Bernardino and San Jacinto Mountains.

According to the HA, there are twenty-four records of SRB within the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. However, the information on the exact locations of these sightings has been suppressed and is unavailable. Data provided by the NRCS also shows the site within a swath of occupied habitat, with two records immediately adjacent to the site (to the east). It also shows two additional records within one mile. The source of the NRCS sightings is unknown, but it is assumed that it is CNDDDB data that has otherwise been suppressed. Based on the habitat suitability assessment conducted, approximately 74.5 acres of suitable habitat are present within the project site, with high quality habitat located in the northern portion of the project site (20.2 acres) (Exhibit 9, *SRB Habitat Suitability Map*). The remainder of the project site supports moderate high quality habitat (6.4 acres), moderate quality habitat (15.3 acres) low quality habitat (32.6 acres), or is considered unsuitable (73.8 acres) for this species. SRB is assumed present on-site based on the results of the habitat suitability assessment data and provided by the NRCS.

#### ***San Bernardino Flying Squirrel (SBFS)***

The SBFS has been designated by the CDFW as a species of special concern and by the USFS Regional Forester as a Forest Service sensitive species. Although it is currently not protected under the federal Endangered Species Act, in response to a 2010 petition from the Center for Biological Diversity to list the SBFS as an endangered or threatened species, the USFWS issued a 90-day finding in 2012 determining that the petition presented substantial information indicating that the petitioned action may be warranted. This initiated a 12-month review period to determine final listing status. However, as of writing the finding has not been issued. The historic distribution of the SBFS includes both the San Bernardino and San Jacinto Mountains and possibly the San Gabriel Mountains. Recent data analysis suggests that this subspecies may now only be extant in the San Bernardino Mountains, and could still be present and not detected in the San Jacinto Mountains.

The SBFS is nocturnal and is rarely observed. It occurs in a range of coniferous and deciduous forests, including riparian forests and mixed conifer forests. They are usually found in mature old-growth forests, although forests with second growth stands may also suffice. Occupied habitat tends to have an open understory with a heavy duff

(organic debris) layer and a somewhat closed canopy. For locomotion/gliding purposes, they require somewhat dense tree cover (less than 120 feet between tall trees and preferably around 65 feet), although they may rarely glide across distances of over 300 feet. Trees with snags (a dead or partly dead tree that is still standing) and cavities suitable for nesting and denning are required, and trees that are greater than 100 feet tall and greater than 30 inches diameter at breast height are preferred. In the absence of tree cavities flying squirrels may instead use existing stick or leaf nests or clumps of vegetation for nesting. However, this is also a seasonal preference, with cavity nests being used more often in cold winters than in warm springs and summers. The SBFS depends strongly on truffles and arboreal moss for food, as well as to a much lesser degree seeds, nuts, insects, fruit, birds eggs, and even sap. Larger, older trees with associated woody debris and decaying logs tend to indicate a higher potential for healthy truffle growth in the underlying soil. Riparian areas are favored, as the associated soil moisture tends to promote truffle growth.

According to the HA, there are two recorded occurrences of SBFS in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. The closest occurrence was documented approximately one mile northwest of the project site just west of Kuffel Canyon Drive. Both occurrences are presumed extant and this species is generally presumed to be extant rangewide in the San Bernardino Mountains. Data provided by the NRCS indicates that spotted owl pellets containing flying squirrel remains have been found throughout the northeastern section of the project site in association with a known owl nesting location. The habitat suitability assessment for SBFS determined that approximately 82 acres of suitable habitat are present within the project site, with high quality habitat located in the northeastern portion of the project site (14.4 acres). The remainder of the project site supports moderate quality habitat (12.9 acres) or has either low quality habitat (54.7 acres) or is considered unsuitable (66.3 acres) for this species' foraging, nesting/denning, and gliding needs due to open canopy cover, lack of any downed woody debris on the forest floor, habitat fragmentation through existing development, and/or an abundance of newer tree growth. SBFS is assumed present on-site based on the results of the habitat suitability assessment.

***California Spotted Owl (CASO)***

The CASO has been designated by the CDFW as a species of special concern and by the USFS Regional Forester as a Forest Service sensitive species. Although it is currently not protected under the federal Endangered Species Act, in response to a December 2014 petition from the Wild Nature Institute and the John Muir Project of the Earth Island Institute to list the CASO as an endangered or threatened species, the USFWS issued a 90-day finding in September 2015 determining that the petition presented substantial information indicating that the petitioned action may be warranted. This initiated a 12-month review period to determine final listing status. However, as of writing the finding has not been issued.

The CASO is distributed across the Sierra Nevada from Shasta County to Kern County, and along coastal southern California mountain ranges from Monterey County to San Diego County. CASO occur in four different types of old-growth forests: riparian/hardwood forest, live oak/bigcone Douglas-fir forest, mixed conifer forest, and redwood/California-laurel forest. In the San Bernardino Mountains, it has been found that 39 percent of CASO nest in mixed conifer habitat, 41 percent in oak/bigcone Douglas-fir, and 20 percent in hardwood/conifer habitat. In southern California, nest sites range from 1,000 feet elevation to 8,400 feet; in the San Bernardino Mountains the average elevation of occupied nest habitat is at 6,000 feet. Home ranges in the San Bernardino Mountains vary from approximately 800 acres to 2,200 acres. Eighty percent of nesting trees have canopy cover greater than 70 percent, with surrounding nesting habitat having at least two canopy layers. Nest trees often contain large cavities, broken tops, and/or dwarf mistletoe brooms. In southern California conifer forest, stick nests placed on platforms built by other species are most common. In coniferous forests, such as that on-site, large snags and fallen logs are typically present in nesting habitat; this appears to be less important in lower-elevation nesting habitat. Nesting trees are on average 37 inches diameter at breast height and at least 230 years old in the San Bernardino Mountains, and throughout southern California are typically on north-facing slopes where temperatures tend to be cooler. Roosting habitat is much the same as nesting habitat, but foraging habitat is more varied. While owls may forage in the same habitat that they use for nesting and roosting, foraging habitat is often much more open, with canopy cover as low as 40 percent to provide large amounts of open space for flying. Although CASO will forage

opportunistically on a variety of different prey species, throughout southern California their primary prey (79 to 97 percent) is woodrats (typically dusky-footed woodrat, *Neotoma fuscipes*), which tend to have much larger populations (up to 10 times) than and weigh nearly twice as much on average as flying squirrels.

There are no recorded occurrences of CASO in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. Data obtained indicates twenty-one separate spotted owl sightings between 1976 and 2010 (mostly in the 1990s and 2000s) on or adjacent to the site within the canyon between Mount Sorenson and Skyforest. Data indicated that CASO nesting occurred in 2014 just off the northeastern boundary of the project site, and that there were eleven known CASO nesting locations, including the aforementioned location, within a 1.5-mile radius of the project site in 2014. Much of the forested portion of the project site has been mapped by the NRCS as a Protected Activity Center, defined as a single area in which individual or paired resident SPOW can nest, forage, and roost. The habitat suitability assessment for CASO determined that approximately 82.1 acres of suitable habitat are present within the project site, with high quality habitat located in the northeastern portion of the project site (14.4 acres) (Exhibit 4.4-1, *California Spotted Owl Habitat Suitability Map*). The remainder of the project site supports moderate quality habitat (56.4 acres), low quality habitat (11.3 acres), or is considered unsuitable (66.2 acres) for this species' foraging, nesting, and roosting needs. In addition, a single adult CASO was found immediately offsite during the suitability assessment in the vicinity of the nest tree and this species is expected to be present on-site.

#### ***Mountain Yellow-legged Frog (MYLF)***

The MYLF has been designated by the CDFW and the USFWS as endangered under the California Endangered Species Act and the federal Endangered Species Act, respectively, as well as by the USFS Regional Forester as a Forest Service sensitive species. The only known remaining populations of MYLF in southern California are distributed over nine locations, including five populations in the San Gabriel, four in the San Jacinto, and one in the San Bernardino Mountains. This group of populations is collectively known as the Southern California Distinct Population Segment [DPS]). Another population is present at the southern end of the Sierra Nevada (known as the Northern California DPS).

MYLF is strongly associated with high-elevation creeks, meadows, and ponds that are fed by springs and/or snowmelt. In southern California their historic elevations have ranged from 1,200 to 7,500 feet, although current populations are restricted primarily to the mid to upper portions of this range. It is not uncommon for portions of occupied MYLF aquatic habitat to freeze over on the surface in the winter. While sections of creeks may dry up, at least some perennial water is required for MYLF to persist in an area due to reproductive, larval growth, and hydration needs. Ideal creek habitat for MYLF includes numerous pools and may include both rapid and slow flows as well with small waterfalls. Substrate within and surrounding the creek generally includes bedrock, fine sand, rubble, rocks, or boulders. Unlike most Anurans, is diurnal, and requires suitable basking habitat during the day. Downed logs are common elements of MYLF habitat and, along with rocks, function as basking sites and refugia. Open or semi-open canopies are required for basking purposes and to aid in algal growth. Eggs are laid in clusters of 15 to 350 in shallow areas with rocks, gravel, vegetation, or other surfaces to which they can be attached. They hatch within 18 to 20 days at a water temperature between 41 and 56°F. Tadpoles may take up to three years to metamorphose in higher elevation areas (particularly in the Sierra Nevada), although in southern California tadpole metamorphosis is generally assumed to occur after approximately 1.5 years at the end of the second summer.

According to the HA, there are six recorded occurrences of MYLF in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. However, four of these occurrences are historic and are now extirpated and the remaining two are of the same population in East Fork City Creek. This population, the only population in the entire San Bernardino Mountain Range, is approximately 1.25 miles southeast of the project site. It was once estimated at 50 individuals based on USGS surveys in 2002 and 2003. However, this site was disturbed by a wildfire and later flooding in 2003, resulting in a lack of observations until 2006, when frogs were again found by USGS for the next six years. In 2011 all detected MYLF were salvaged from East Fork City Creek in an attempt to rescue the population through captive breeding and reintroduction. MYLF have subsequently failed to be detected during recent surveys over the last several years until September 2015, when a single adult male was found by USGS. The habitat suitability assessment for MYLF determined that no suitable habitat is present

within the project site. Hooks Creek is generally too narrow, too shaded, and provides too little, if any, perennial aquatic habitat, and the on-site pond, while perennial, provides no basking habitat due to dense surrounding vegetation and is known to contain thousands of potential predators including catfish and bluegill. MYLF is presumed absent from the project site.

### ***Andrew's Marble Butterfly***

Andrew's marble butterfly has no special regulatory protection, but its occurrences are tracked by the CNDDDB. It is distributed near Lake Arrowhead and Big Bear Lake and in other locations across the crest and the north slope in the San Bernardino Mountains, including Baldwin Lake, Sugarloaf Mountain, and Wild Horse Meadow. Between 40 and 80 percent of its numbers are estimated to be located within the San Bernardino National Forest. It is found primarily in pine and mixed conifer forests, where it uses members of the mustard family (Brassicaceae) as larval hosts, including slender petaled thelypodium (*Thelypodium stenopetalum*; federally endangered and extremely rare) in wet meadows, woodland rockcress (*Boechera pinetorum*) in conifer/mixed conifer forests, and Laguna Mountains jewelflower (sensitive but relatively abundant) in chaparral, conifer forest, disturbed areas, and shaded and mesic areas near springs and seeps. The flight period is from late June to early July; they tend to fly along hilltops to search for mates in the eastern San Bernardino Mountains, and to fly through draws and canyons in the western San Bernardino Mountains. There is only one brood per year.

According to the HA, there are two recorded occurrences of Andrew's marble butterfly in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. The closest occurrence was documented in the vicinity of Lake Arrowhead, but exact coordinates are not available. Andrew's marble butterfly has a high potential to occur within the project site.

### ***Bald Eagle***

The bald eagle has been designated by the CDFW as a fully protected species and as endangered under the California Endangered Species Act. It has been delisted from the federal Endangered Species Act. It has also been designated by the USFS Regional Forester as a Forest Service sensitive species. It occurs throughout the United States, and

in California is generally a winter resident throughout much of the State except in the far north, the Central Coast, and select areas of southern California. It is known to breed in the San Bernardino National Forest around Big Bear Lake. The bald eagle is found around lakes, reservoirs, rivers, and some rangelands and coastal wetlands in the winter. Its breeding habitat consists mainly of mountain and foothill forests and woodlands near reservoirs, lakes, and rivers. Nests are usually constructed in mature and old-growth forests within 1.24 miles of suitable water bodies, and in areas with extensive shoreline development or human activity, nests may be located farther from the water than otherwise. Nests are usually constructed greater than 0.3 mile from human development. Dead trees are preferred for perching if available, but if not then eagles will tend to look for tall, easily accessible, often open trees. Roost trees are generally large and are above the surrounding canopy and may be located farther from water than nesting trees. Wintering habitat is much the same and is determined based upon prey availability, quality of roost sites, and absence of human disturbance, although humans may be tolerated where prey is plentiful.

According to the HA, there are three recorded occurrences of bald eagle in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. The closest CNDDDB occurrence was documented approximately 0.4 mile northwest of the project site in the vicinity of Emerald Bay. The closest eBird occurrence is approximately 0.2 mile east of the project site at Heaps Peak Arboretum. The project site is located approximately one mile southeast of Lake Arrowhead and presents suitable nesting habitat throughout, particularly in its northern extent. There is no foraging habitat within the project site except at the on-site pond, which contains both catfish and bluegill. Bald eagle has a moderate to high potential to occur within the project site.

### *Lodgepole Chipmunk*

The lodgepole chipmunk has no special regulatory protection, but its occurrences are tracked by the CNDDDB. It has historically occurred around Whitewater Creek and Mt. San Bernardino in the San Bernardino Mountains; French Gulch in the Piute Mountains; Fawnskin Park, Sugarloaf, and Camp Angelus in the San Bernardino National Forest; and Dry Lake in the San Gorgonio Wilderness Area. It has been apparently extirpated from the San Jacinto Mountains. This species is abundant in open-canopy lodgepole pine

habitat, particularly those areas with about 40 percent cover of shrubs and trees, as well as large boulders and open ground. It is less common in closed-canopy forest with sparse undercover. It also occurs in isolated populations in southern California mountains within open-canopy forests of mixed conifer, Jeffrey pine, lodgepole and limber pine, and occasionally in chaparral. It is found at elevations ranging from about 4,921 to 9,843 feet. Trees are used for refuge, observation posts, and nests, but they will also use cavities in logs, snags and stumps, and underground burrows as necessary during any season. Breeding occurs in May and June and lasts for approximately four weeks. It has been observed to be active every month of the year in the San Bernardino and San Gabriel Mountains.

According to the HA, there are five recorded occurrences of lodgepole chipmunk in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. The closest occurrence was documented approximately 3.9 miles east of the project site in the vicinity of Green Valley Lake in 1964. The northern end of the project site in particular represents optimal habitat with relatively low canopy cover, an abundance of large boulders (particularly in the northeastern end), and abundant open ground. Lodgepole chipmunk has a moderate to high potential to occur within the project site.

#### *White-eared Pocket Mouse*

The white-eared pocket mouse has been designated by the CDFW as a species of special concern and by the USFS Regional Forester as a Forest Service sensitive species. It is known to occur in isolated montane populations in the Tehachapi Mountains and in the San Bernardino Mountains in the vicinity of Strawberry Peak. It occurs at elevations ranging from 3,500 to 5,900 feet. It is a scarce resident of ponderosa and Jeffrey pine habitats, and is uncommon in mixed chaparral and sagebrush habitats. Burrows are constructed in loose soil and nests are composed of dry grass built in a chamber of the underground burrow. According to the HA, there are three recorded occurrences of the white-eared pocket mouse in the Harrison Mountain, Lake Arrowhead, Butler Peak, and Keller Peak USGS 7.5-minute quadrangles. The closest occurrence was documented approximately 1.40 miles west of the project site. However, all three occurrences are considered by the CDFW to be possibly extirpated, and this species has not been trapped

in the San Bernardino Mountains since 1938. It is unknown if it is still extant in this mountain range, but suitable habitat is present throughout the undisturbed areas of the project site. If it is still extant, white-eared pocket mouse has a moderate to high potential to occur within the project site.

### **NESTING BIRDS**

Only one indication of active nesting was observed during the surveys: An American robin was observed actively nesting just outside the patch of willow scrub in Hencks Meadow during the April 30, 2015 visit. In addition, on the September 23, 2015 visit, a previously-known California Spotted Owl nest was observed immediately outside the site boundaries (with an adult spotted owl perched approximately 150 feet away), as well as a large platform nest to the south. The site contains abundant arboreal nesting habitat throughout, with minimal shrub or ground nesting habitat.

### **SENSITIVE PLANT COMMUNITIES**

According to the HA, there are three sensitive plant communities as having been recorded in the Harrison Mountain quadrangle; Riversidean alluvial fan sage scrub, southern mixed riparian forest, and southern sycamore alder riparian woodland. No sensitive plant communities were observed on the project site during the habitat assessment.

### **CRITICAL HABITAT**

Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. The project site is not located within any federally designated Critical Habitat.

### **JURISDICTIONAL AREAS**

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. 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 Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and associated plant communities under Fish and Wildlife Code Sections 1600 et seq., and the Regional Water Quality Control Board (Regional Board) regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

A total of four drainage features are present on the project site; Hooks Creek and three unnamed ephemeral drainage features (Drainages 1-3). Surface flows within Hooks Creek and the unnamed drainage features are provided by direct precipitation (i.e., rain, snow) and surface runoff from surrounding development and SR-18. Following significant storm events, surface flows collected within the pond and are anticipated permeate downstream within Hooks Creek via the high water table and then continue downstream to Deep Creek. Hooks Creek and Drainage 1, north of SR-18, are located within the southern portion of the Deep Creek subwatershed at the headwaters of the Mojave Watershed in the San Bernardino National Forest. Drainage 2 and Drainage 3, south of SR-18, are located within the Upper Santa Ana River subwatershed at the headwaters of the Santa Ana Watershed.

Hooks Creek and the three unnamed drainage features are further discussed below:

#### ***Hooks Creek***

Hooks Creek is the primary hydrogeomorphic feature found on-site and generally flows in a southwest to northeast direction. Hooks Creek originates at SR-18 near the southwestern corner of the property and extends along the western boundary of the site before it exists near the northeastern corner of the property. From its origin at SR-18 Hooks Creek sheet flows for approximately 700 feet across the existing paved parking lot of Santa's village before flowing into the grassland (meadow). Hooks Creek extends through Hencks Meadow for approximately 530 feet before it continues for approximately 420 feet through the area previously disturbed when it was used as a storage yard and staging area for the bark beetle infested lumber. After the disturbed area, Hooks Creek extends through a southern willow scrub plant community for approximately 270 feet before entering into the existing pond. Downstream (north) of the

pond, the creek runs through a mixed conifer forest and varies between being generally open and covered in vegetation for approximately 1,200 feet before exiting the property.

Due to historic on-site land uses (timber farm), the upstream portions of Hooks Creek are heavily disturbed and covered with remnant debris from the processing and staging of timber. These areas are vegetated with isolated stands of riparian vegetation including arroyo willow, mulefat, fragrant everlasting (*Pseudognaphalium beneolens*), slender leaved sedge (*Carex athrostachya*), Pacific rush, and cattail. Further downstream, Hooks Creek becomes more densely vegetated and consists of a southern willow scrub plant community. Plant species observed within this community include arroyo willow, stinging nettle, sticktight, northern water plantain, horehound, and watercress.

### ***Drainage 1***

Drainage 1 generally flows from southeast to northwest from the project's northeastern boundary for approximately 450 feet before converging into Hooks Creek. Drainage 1 flows through the mixed conifer forest and varies between being generally open and covered in vegetation.

### ***Drainage 2***

Drainage 2 is located on the northwest portion of the property south of SR-18 west of the proposed campground. Drainage 2 generally flows in a northeast to southwest direction from SR-18 for approximately 850 feet down the south-facing slope of the San Bernardino Mountains via topography. Drainage 2 flows through the chaparral plant community.

### ***Drainage 3***

Drainage 3 is located on the southeast portion of the property south of SR-18 east of the proposed campground. Drainage 3 generally flows in a north to south direction from SR-18 for approximately 500 feet down the south-facing slope of the San Bernardino Mountains via topography. Drainage 3 also flows through the chaparral plant community.

## MIGRATORY CORRIDORS AND LINKAGES

Habitat linkages provide links between larger undeveloped 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 but inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site is surrounded by natural plant communities and forest and is located entirely within a wildlife movement corridor, as designated by the San Bernardino County General Plan Open Space Element (Exhibit 8, *Wildlife Corridors* in the HA). The site is located within an area designated simply as "Dispersion Corridor," which provides movement opportunities primarily between the Deep Creek and City Creek designated corridors. The dispersion corridor essentially allows wildlife an area to utilize for traversing the San Bernardino Mountains from the north (Deep Creek) end to the south (City Creek), and vice versa. The Lake Arrowhead policy area is located just to the northwest of the project site.

## REGULATORY FRAMEWORK

### FEDERAL

#### *FEDERAL ENDANGERED SPECIES ACT*

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA) of 1973. "Take" under the ESA is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." "Harm" has been defined by the regulations of the United States Fish and Wildlife Service (USFWS) to include types of "significant habitat modification or degradation." The U.S. Supreme Court, in *Babbitt v. Sweet Home*, 515 U.S. 687, ruled that "harm" may include habitat

modification "...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." Activities that may result in "take" of individuals are regulated by USFWS.

USFWS produced an updated list of candidate species for listing in June 2002 (Federal Register: Volume 67, Number 114, 50 CFR Part 17). Candidate species are regarded by USFWS as candidates for addition to the "List of Endangered and Threatened Wildlife and Plants." Although candidate species are not afforded legal protection under the ESA, they typically receive special attention from Federal and State agencies during the environmental review process.

The Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species, or destroy or adversely modify its critical habitat, if any is designated. Activities requiring Federal involvement (e.g., a Section 404 permit under the Clean Water Act) that may affect an endangered species on Federal or private land must be reviewed by the USFWS who would determine whether or not the continued existence of the listed species is jeopardized.

#### *MIGRATORY BIRD TREATY ACT*

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union, and authorizes the protection of nesting birds that are both residents and migrants, whether or not they are considered sensitive by resource agencies. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21). The USFWS in coordination with the CDFW administers the MBTA.

#### *CLEAN WATER ACT SECTION 404*

Areas meeting the regulatory definition of "Waters of the United States" are subject to the regulatory jurisdiction of the U. S. Army Corps of Engineers (USACE) under the Clean Water Act (CWA) (1972). The USACE, under provisions of Section 404 of the CWA, has jurisdiction over "Waters of the United States" (jurisdictional waters). These waters

may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as Waters of the U.S., tributaries of waters otherwise defined as Waters of the U. S., the territorial seas, and wetlands adjacent to Waters of the U.S. (33 CFR, Part 328, Section 328.3).

Areas generally not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and, under certain circumstances, water-filled depressions created in dry land incidental to construction activity (51 Federal Register 41217, November 13, 1986).

## STATE

### *CALIFORNIA ENVIRONMENTAL POLICY ACT*

CEQA requires that biological resources be considered when assessing the environmental impacts resulting from proposed actions. Lead agencies are charged with evaluating available data and determining what specifically should be considered an adverse effect.

### *CALIFORNIA FISH AND GAME (CDFW) CODE*

CDFW regulates not only the discharge of dredged or fill material, but all activities that alter streams and lakes and their associated habitat. The CDFW, through provisions of the California Fish and Game Code (Sections 1601-1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The CDFW typically extends the limits of their jurisdiction laterally beyond the channel banks for streams that support riparian vegetation. In these situations, the outer edge of the riparian vegetation is generally used as the lateral extent of the stream and CDFW jurisdiction. CDFW regulates wetland areas only to the extent that those wetlands are a part of a river, stream, or lake as defined by CDFW. While seasonal ponds are within the CDFW definition of wetlands,

they are not part of a river, stream, or lake, and may, or may not, be subject to the jurisdiction of CDFW under Sections 1601-1603 of the Fish and Game Code.

The CDFW administers the State Endangered Species Act. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management and a rare species is present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species applies to California native plants.

As with the MBTA, similar provisions within the California Fish and Game Code protect all native birds of prey and their nests (FGC §3503.5), and all non-game birds (other than those not listed as Fully Protected) that occur naturally in the State (§3800). Species that are California fully protected include those protected by special legislation for various reasons, such as the California condor. Species of Special Concern is an informal designation used by CDFW for some declining wildlife species that are not proposed for listing as threatened or endangered, such as the burrowing owl. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFW.

*CALIFORNIA NATIVE PLANT SOCIETY (CNPS) RARE OR ENDANGERED PLANT SPECIES*

Vascular plants listed as rare or endangered by the CNPS (2001), but which have no designated status under State or Federal endangered species legislation, are defined as follows:

- List 1B.** Plants rare, threatened, or endangered in California and elsewhere.
- List 2.** Plants rare, threatened, or endangered in California, but more numerous elsewhere.
- List 3.** Plants about which more information is needed (a review list).
- List 4.** Plants of limited distribution (a watch list).

**LOCAL***LAKE ARROWHEAD COMMUNITY PLAN*

The natural resources play an important role in the character and economic viability of the community. Therefore, it is important to the residents of Lake Arrowhead Community that the conservation of natural resources are protected and maintained. The following goals and policies of the Lake Arrowhead Community Plan further contribute to the State and Federal regulations to preserve the plan area's natural resources.

**Goals:**

- LA/CO 1** Preserve the unique environmental features of Lake Arrowhead including native wildlife, vegetation, and scenic vistas.

**Policies:**

- LA/CO 1.1** The following areas are recognized as important open space areas that provide for wildlife movement and other important linkage values. Projects shall be designed to minimize impacts to these corridors.
- a. Grass Valley Creek Wildlife Corridor
  - b. Strawberry Creek Wildlife Corridor
  - c. Dispersion Corridor- between Lake Arrowhead and Running Springs and south of Highway 18.
- LA/CO 1.2** Consider design, construction and maintenance techniques in the County Flood Control District system, where technically and economically feasible, which allow the growth of habitat and the use of the flood control system by wildlife.
- LA/CO 1.4** Work with Federal, State and local agencies to protect significant wildlife corridors.
- LA/CO 1.5** Provide for the grouping or clustering of residential buildings where this will maximize the opportunity to preserve significant natural resources, natural beauty or open space

without generally increasing the intensity of development otherwise possible.

**Goals:**

**LA/CO 2.** Maintain the health and vigor of the forest environment.

**Policies:**

**LA/CO 2.3** Require the re-vegetation of any graded surface with suitable native drought and fire resistant planting to minimize erosion.

**LA/CO 2.4** Establish a parking provision for the purpose of saving healthy trees in parking areas by giving parking credit for areas containing specimen trees.

**LA/CO 2.5** Require an approved landscape plan as part of the location and development plan review and approval process for all proposed residential, commercial and industrial projects. Projects within the LACSD service area shall conform to LACSD-adopted mandatory landscape standards.

**Goals:**

**LA/CO 3.** Protect streambeds and creeks from encroachment or development that detracts from their beauty.

**Policies:**

**LA/CO 3.1** Utilize open space and drainage easements as well as clustering of new development as stream preservation tools.

**LA/CO 3.2** Require naturalistic drainage improvements where modifications to the natural streamway are required.

## IMPACT ANALYSIS AND MITIGATION MEASURES

### METHODOLOGY

An evaluation of the significance of potential impacts on biological resources must consider both direct effects to the resource as well as indirect effects in a local or regional context. Potentially significant impacts would generally result in the loss of a biological resource or obviously conflict with local, state, or federal agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially affect the resource on a population-wide or region wide basis.

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed plan may have a significant adverse impact on biological resources if it would do any of 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 Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Clean Water Act Section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project 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 Service?</i>
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**Impact 4.4-1**      **Implementation of the Project may 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 Service. This impact would be *potentially significant impact without mitigation incorporated.***

### Plant Species

Based on the HA and focused surveys, there are no federally or State listed plant species known or expected to occur within the facility corridor. All federally or State listed plants are presumed absent or are expected to have a low potential to occur.

Three special-status plant species were identified to have moderate or higher potentials to occur on the project site: silver-haired ivesia, Parish's yampah, and Laguna Mountains jewelflower. No sensitive plant species were found within the project site during any of the field surveys. However, none of the general field surveys were conducted during the suitable blooming period for most sensitive plant species. Since focused sensitive plant surveys have not yet been conducted on this project site, it is unknown if any sensitive plants are present and thus the project is unable to avoid any areas that may have

sensitive plants. However, construction of proposed new trails within the project site will minimize potential impacts to sensitive plant species by reducing the amount of vegetation removal and disturbance that will be required to create the trails. Trails will generally be left in a "rough" state, unpaved and with brush cleared and overhanging vegetation trimmed. Surrounding vegetation and brush will be left in place to provide a more natural setting.

Direct or indirect impacts could occur to special-status plant species, if present, as a result of project implementation. If they are present within areas that will be developed or otherwise used by the park, individuals would likely be lost. However, it is anticipated that if special-status plant species are located within a planned trail alignment that the trail alignment can be modified to avoid direct and indirect disturbance of the plants. Construction activity could result in the spread of non-native weed seeds via clothing, tires, or vehicle undercarriages. In addition, vehicle travel and pedestrian foot traffic within the project boundaries during the construction phase could result in the trampling of plant species. If plants are present in the vicinity of trails or other park amenities outside of the existing developed area, they may be subject to trampling, picking, or other forms of take by guests. For these reasons, the following mitigation measures are proposed and would reduce project impacts to less than significant:

- MM BIO-1:** A qualified biologist or botanist shall conduct a pre-construction clearance survey for special-status plant species on the project site during the appropriate blooming period prior to trail creation or construction in new areas. If present, any special-status plants shall be clearly flagged for avoidance with a suitable buffer zone during construction by the qualified biologist/botanist. Physical barriers shall be strategically placed as directed by the biologist/botanist around any identified special-status plant species, preventing guests from entering these areas. A letter report summarizing the results of the pre-construction plant survey and any placement of physical barriers to protect special-status plants shall be prepared by the biologist/botanist and be submitted

to the San Bernardino County Land Use Services Department. If in the unlikely event that avoidance is not feasible, the project applicant shall discuss potential relocation strategies with applicable regulatory agencies and obtain approval prior to activities that result in impacts.

**MM BIO-2:** All work areas shall be visibly flagged or staked prior to construction. Construction activities shall be limited to these approved work areas except with prior authorization from regulatory agencies.

**MM BIO-3:** A Worker Environmental Awareness Program (WEAP) shall be implemented to educate all construction personnel of the area's environmental concerns and conditions, including special-status species, and relevant environmental protection measures. The WEAP will constitute the conveyance of environmental concerns and appropriate work practices, including spill prevention, emergency response measures, protection of sensitive resources, and proper implementation of BMPs, to all construction and maintenance personnel. All new workers that arrive after construction has started shall be trained under the WEAP within two days' time.

**MM BIO-4:** All brush, debris, and cleared vegetation shall be removed from the project site and disposed of properly or reused elsewhere on-site in an approved location where it will not wash into any riparian areas.

**MM BIO-5:** For Class II streams, defined as those supporting aquatic life other than fish, a buffer of 75 feet (23 meters) on either side of the stream (measured from the high water mark) will be flagged and avoided. For Class III streams, defined as those not supporting aquatic life, a buffer of 25 feet (8 meters) on either side of the stream (measured from the high water mark)

will be flagged and avoided. On-site streams are expected to be classified as a combination of Class II and Class III streams.

**MM BIO-6:** All trails shall be kept in a maintained state sufficient to clearly determine where the trail lies. Signs and physical barriers shall be strategically placed along the trail, under direction of a qualified biologist, discouraging guests from wandering outside of the trail boundaries.

### **Wildlife Species**

The HA determined a moderate to high potential to support two listed wildlife species and five special status wildlife species to occur within project site. Listed wildlife species that were identified to have a moderate to high potential to occur on the project site include the Southern rubber boa and Bald Eagle. The special status wildlife species that were identified to have a moderate to high potential to occur on the project site include the California spotted owl, San Bernardino flying squirrel, Andrew's Marble butterfly, lodgepole chipmunk, and the white eared pocket mouse. For the location of California spotted owl habitat within the Project site, refer to Exhibit 4.4-1, *California Spotted Owl Habitat Suitability Map*, and for the location of San Bernardino flying squirrel habitat refer to Exhibit 4.4-2, *San Bernardino Flying Squirrel Habitat Suitability Map*).

#### *Southern Rubber Boa*

The southern rubber boa is assumed present on-site based on the results of the habitat suitability assessment. Most of the proposed new trail system is located in habitat that is unsuitable for SRB, with the proposed hiking trail located mostly within habitat that is of moderate quality for this species. A small portion of the proposed bike trail is located in low quality habitat, and a very small portion of the hiking trail is located in good quality habitat. The low quality habitat contains little to no suitable habitat elements, particularly refugia, for SRB, and the proposed route of the hiking trail runs alongside Hooks Creek. Most of the suitable refugia in the northern portion of the project site is located in more upland areas, especially on slopes at the site's northern edge. (Refer to Exhibit 4.4-3, *Southern Rubber Boa Habitat Suitability Map*)

Construction of the new hiking trail north of the pond may result in direct impacts to this species through construction- and operations-related habitat loss. As noted in the habitat suitability assessment, there are rocks and surface litter along Hooks Creek north of the pond with associated mesic conditions. It is possible that this species is present in this general area, and thus removal of surface debris may result in habitat loss or habitat degradation. Similarly, park operations may result in indirect habitat loss/degradation if park guests venture off the trails and disturb surrounding habitat. Because this species is highly fossorial, nocturnal, and no mechanized equipment will be used to construct the trails, the potential for direct take of individual boas during construction or operations is very low.

In addition to MM BIO-2, -3, -4, and -6, the following mitigation measures are proposed to reduce project impacts to less than significant with mitigation incorporated:

- MM BIO-7:** A qualified biologist shall conduct a pre-construction clearance survey for special-status wildlife species (including California spotted owl, San Bernardino flying squirrel, and southern rubber boa) on the project site immediately prior to trail creation or construction in new areas. Special-status wildlife shall be avoided by waiting for them to leave an area before working in it. A letter report summarizing the results of the pre-construction clearance survey for special-status wildlife species shall be prepared by the biologist and be submitted to the San Bernardino County Land Use Services Department. If avoidance is not feasible, the project applicant shall consult with CDFW on potential relocation strategies that shall be approved by CDFW prior to initiation of the construction activities that result in impacts. Relocation or any other disturbance to southern rubber boa shall require obtaining a CESA Section 2081 Incidental Take Permit from CDFW which will outline conditions to ensure impacts are minimized and fully mitigated.

- MM BIO-8:** A biologist shall be on-site when work (e.g. trail clearing) is conducted in suitable habitat for SRB. All duff, debris, and downed logs in proposed work areas shall be examined for SBR by a qualified biologist no more than 5 days prior to disturbance.
- MM BIO-9:** Retain 9 logs per acre of all age and decay classes greater than or equal to 12 inches (31 centimeters) in diameter and 20 feet (6 meters) long. At least 3 of the logs should be Class 1 logs with a minimum diameter of 12 inches (31 centimeters). Half of the logs should be 20-36 inches (51-96 centimeters) in diameter. A biologist shall coordinate where the logs should be placed for maximum wildlife usability. Exceptions will be made in fuel break areas.
- MM BIO-10:** All rocky outcrops shall be avoided.
- MM BIO-11:** Brush piles for burning or chipping will not be created within 300 feet (92 meters) of rock outcrops and existing logs in rubber boa habitat. If this is not possible, exclusionary fencing will be placed around brush piles to prevent usage by boas prior to burning or chipping.

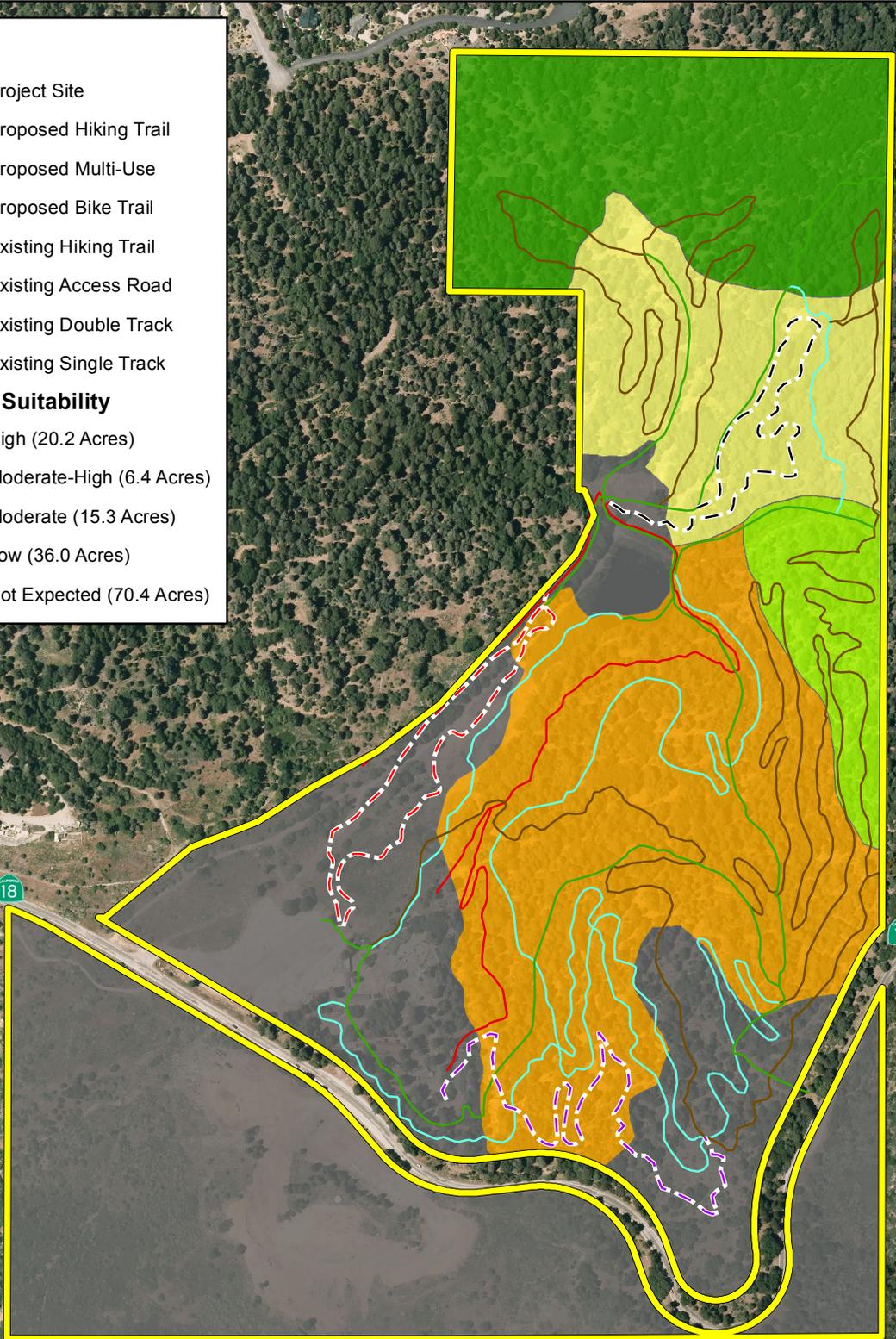
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**Legend**

-  Project Site
-  Proposed Hiking Trail
-  Proposed Multi-Use
-  Proposed Bike Trail
-  Existing Hiking Trail
-  Existing Access Road
-  Existing Double Track
-  Existing Single Track

**Habitat Suitability**

-  High (20.2 Acres)
-  Moderate-High (6.4 Acres)
-  Moderate (15.3 Acres)
-  Low (36.0 Acres)
-  Not Expected (70.4 Acres)



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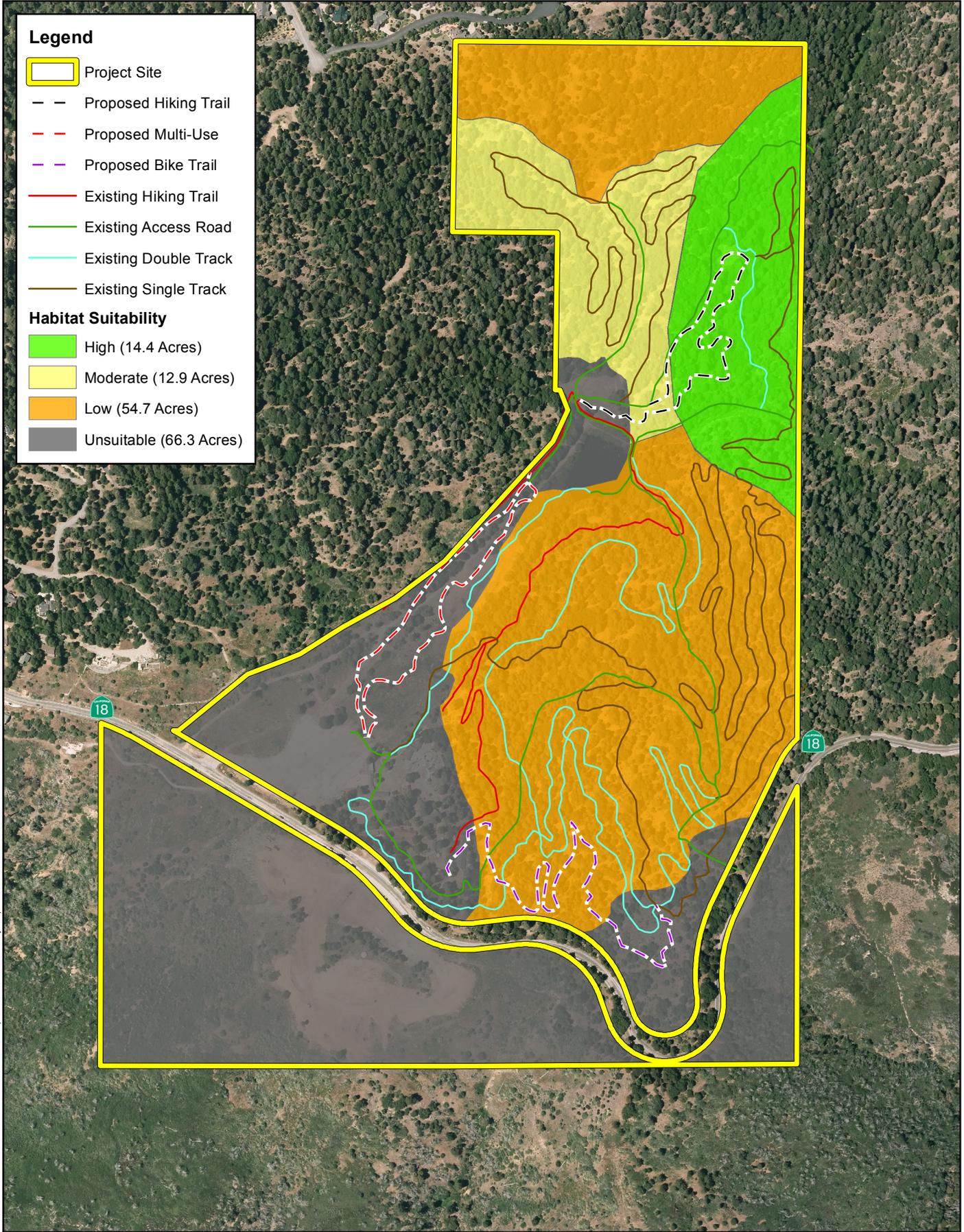
**SRB Habitat Suitability Map**



Source: San Bernardino County, Eagle Aerial 2013

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**Legend**

- Project Site
- Proposed Hiking Trail
- Proposed Multi-Use
- Proposed Bike Trail
- Existing Hiking Trail
- Existing Access Road
- Existing Double Track
- Existing Single Track

**Habitat Suitability**

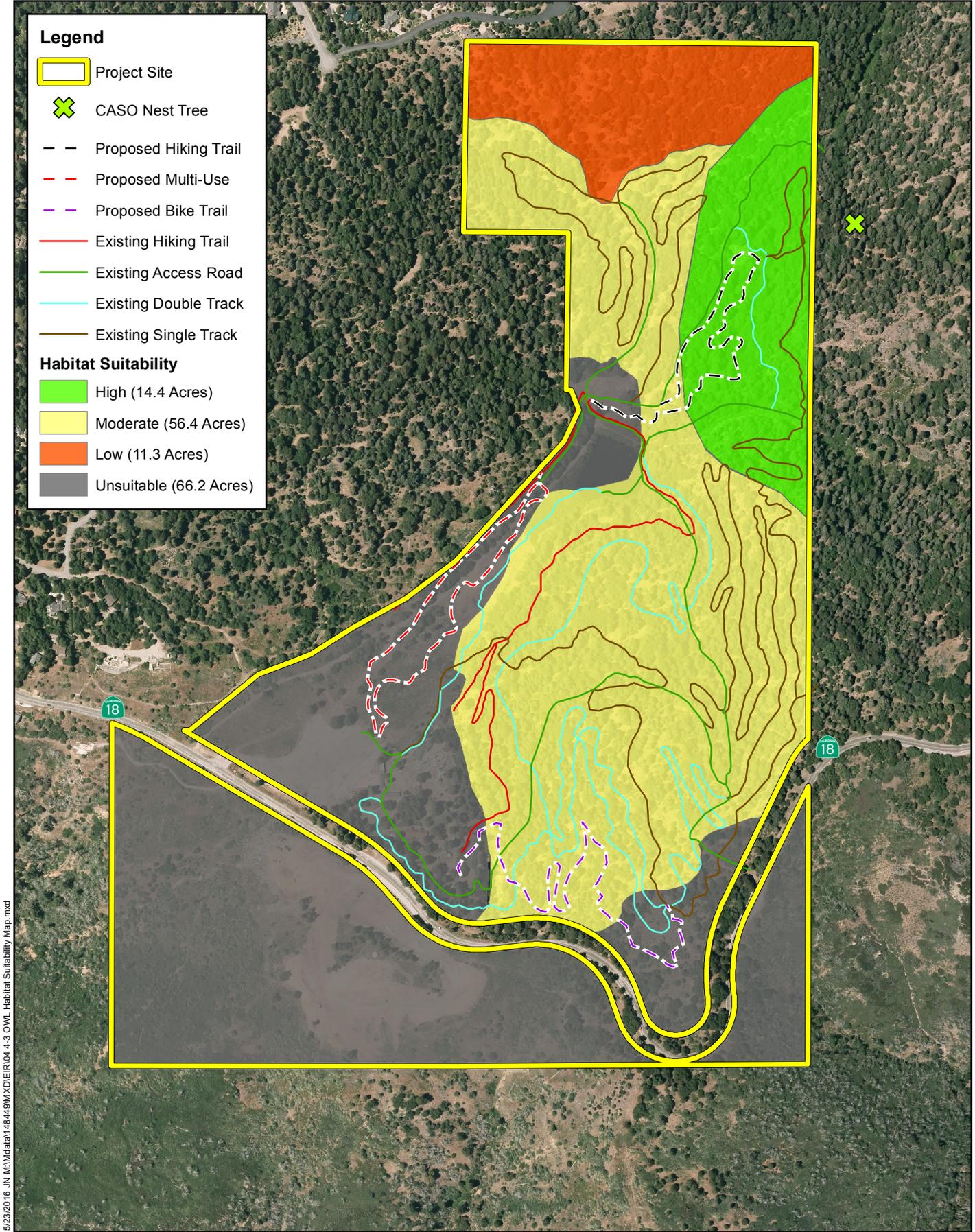
- High (14.4 Acres)
- Moderate (12.9 Acres)
- Low (54.7 Acres)
- Unsuitable (66.3 Acres)



Source: San Bernardino County, Eagle Aerial 2013

SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT  
**SBFS Habitat Suitability Map**

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**Legend**

- Project Site
- X CASO Nest Tree
- Proposed Hiking Trail
- Proposed Multi-Use
- Proposed Bike Trail
- Existing Hiking Trail
- Existing Access Road
- Existing Double Track
- Existing Single Track

**Habitat Suitability**

- High (14.4 Acres)
- Moderate (56.4 Acres)
- Low (11.3 Acres)
- Unsuitable (66.2 Acres)

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SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT



# CASO Habitat Suitability Map

Source: San Bernardino County, NRCS, Eagle Aerial 2013

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*Bald Eagle*

The Bald Eagle has a moderate to high potential to occur within the project site. There is no foraging habitat within the project site except at the on-site pond and there is no construction or park amenities that are planned for use within the on-site pond. Impacts that could occur to bald eagles nesting or foraging in the area primarily include indirect disturbance of nesting or foraging activity from guest presence during the operations phase of the park. If eagles are actively nesting and guest-related disturbance is particularly high, a nesting effort may be lost. However, it is expected that most bald eagles in the area likely stay close to Lake Arrowhead and would be unlikely to leave to forage and/or nest in the vicinity of the pond on the project site.

In addition to MM BIO-2, -3, -6, and -7, the following mitigation measures are proposed to reduce project impacts to less than significant with mitigation incorporated:

**MM BIO-12:** Brush piles for burning or chipping will not be created within bald eagle roosts during occupancy.

**MM BIO-13:** All construction shall occur outside of January 1-September 15 (this time frame includes both the passerine and raptor nesting season). If construction occurs during this time period, a qualified biologist shall conduct a pre-construction nesting bird clearance survey in all work areas and all areas within 500 feet of the general construction zone. This shall occur no more than one week prior to construction. Active nests shall be given an avoidance buffer, typically 300 feet for non-listed, non-raptor species, and 500 feet for listed and raptor species. This buffer shall remain in place until the young fledge or the nest otherwise becomes inactive, and may be reduced with approval from CDFW and/or USFWS. The nest(s) shall be monitored at least once each week during active construction to determine status. If an established buffer is still causing animal stress or potential abandonment of nest, work will stop until a biologist can establish a new

buffer to ensure no take is incurred. A letter report summarizing the results of the pre-construction nesting bird clearance survey and any active nests and buffer areas shall be prepared by the biologist/botanist and be submitted to the San Bernardino County Land Use Services Department.

**MM BIO-14:** The applicant will retain 10-15 hard snags per 5 acres (minimum of 16 inches/41 centimeters diameter at breast height and 40 feet/12 meters tall). Live and dead oaks that are at least 14 inches (35 centimeters) diameter at breast height will be retained unless they pose falling hazards.

Based on the HA there are five additional non-listed special-status wildlife species that were determined to have a moderate to higher potential to occur within the project site and only the California Spotted owl was observed during the field surveys.

Construction of proposed new trails within the project site will minimize potential impacts to sensitive species by reducing the amount of vegetation removal and disturbance that will be required to create the trails. Trails will generally be left in a "rough" state, unpaved and with brush cleared and overhanging vegetation trimmed. Surrounding vegetation and brush will be left in place to provide a more natural setting. Wildlife that utilize areas that have already been developed or partially developed, such as around the main park facilities or around the trails in the southeastern corner of the project site, will be unavoidable.

Direct construction-related impacts to special-status wildlife species are expected to be minor during construction and trail creation and would primarily be related to disturbance from human presence and noise. There may be small amounts of small mammal habitat loss or degradation related to the loss of surface litter/refugia or to soil compaction in areas subject to heavy foot traffic. In extreme situations, excessive disturbance may cause individual animals to leave the area, temporarily or permanently. If any host plant species for Andrew's marble butterfly are present within areas that will be developed or cleared, their loss would reduce the amount of suitable on-site habitat

for this species. Guest presence on the trails, particularly in the northeastern portion of the site where CASO was documented by Michael Baker or where SBFS is assumed present, may result in disturbance to these or other species. Any long-term loss of rodents as a result of guest disturbance will reduce the amount of on-site prey for CASO.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the existing dirt road and Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities. The extension of Cumberland Drive is expected to be constructed at some time in the future. However, it is not known when in the future it may be constructed because it is based on future development by private property owners. If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way because this alignment is along an existing utility easement and dirt road, future construction of a paved roadway here would not be expected to result in impacts to sensitive plant or wildlife species or sensitive habitats as it is already disturbed. Direct construction-related impacts to special-status wildlife species are expected to be minor during construction and would primarily be related to disturbance from human presence and noise.

In addition to MM BIO-2, -3, -5, -6, -7, -9, and -14, the following mitigation measures are proposed to reduce project impacts to less than significant with mitigation incorporated:

- MM BIO-15:** No work will be allowed within 400 meters of known CASO activity areas during the Limited Operating Period (LOP) between February 1 and August 15.
- MM BIO-16:** No work will be allowed during the LOP in the entire project area.

- MM BIO-17:** If owl surveys have not been conducted, all suitable habitat shall be avoided during the LOP.
- MM BIO-18:** Known nest sites will be buffered by 400 meters (as identified by a qualified biologist) and avoided in perpetuity.
- MM BIO-19:** Wildlife trees will be marked by a qualified biologist and avoided. All snags in nesting or foraging areas shall be left intact.
- MM BIO-20:** In known or suitable nesting areas, percent canopy cover shall not be reduced below 70%. In areas of known or suitable foraging, percent canopy cover shall not be reduced below 50%.
- MM BIO-21:** Downed woody debris shall be left at 10-15 tons per acre in nesting and foraging habitat.
- MM BIO-22:** All woodrat nests shall be avoided and buffered by 10 feet.
- MM BIO-23:** Approximately 10 percent or more of stumps, targeting those showing some level of decomposition, should be left at two to three feet.
- MM BIO-24:** Slash piles should be left in approved areas. Slash piles should be three to four feet high and four to six feet in diameter. There should be two to three slash piles per acre. They should not be burned. Slash piles should be placed approximately 50 feet from roads and houses.

<i>Threshold:</i>	<i>Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?</i>
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**Impact 4.4-2      Implementation of the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. This impact would be *less than significant*.**

As per the Jurisdictional Delineation Report (JD), approximately 1.49 acres of USACE jurisdiction (non-wetland waters) is located within the boundaries of the Project site. Approximately 2.8 acres of California Department of Fish and Wildlife streambed is located within the boundaries of the Project site. There is a total of four drainage features present on the project site; Hooks Creek and three unnamed ephemeral drainage features (Drainages 1-3). Due to historic on-site land uses (timber farm), the upstream portions of Hooks Creek are heavily disturbed and covered with remnant debris from the processing and staging of timber.

Based on the preliminary design plans, the proposed Project improvements and meadow restoration will result in 0.18 acre of temporary impacts to waters of the US under the jurisdiction authority of USACE and the Regional Board. The proposed Project improvements will result in 0.05 acre of permanent and 0.35 acre of temporary impacts to CDFW jurisdiction. The meadow rehabilitation project will realign, expand, and restore the upstream portions of Hooks Creek and will include removal of the wood chips and other debris that were left behind from previous activities. The meadow rehabilitation project will also entail constructing a lined waterway along the length of the meadow, periodically split by new water/sediment control basins, to connect to an onsite pond. Exotic vegetation and large obstructions will be removed throughout the meadow, and new hedgerows will be planted along its perimeter. Wildlife structures including nest boxes, downed wood, and rock piles will be strategically located at different locations along or near to the new waterway.

Although the proposed Project will result in 0.18 acre of temporary impacts to waters of the US and 0.05 acre of permanent and 0.35 acre of temporary impacts to CDFW jurisdiction, the restoration of Hooks Creek and Hencks Meadow in accordance with the NRCS Conservation Plan, impacts are reduced to less than significant levels. In addition, a CDFW Section 1602 SAA permit for impacts to Hooks Creek will be required. CDFW will include in the SAA permit any conditions to be followed during construction, operation and maintenance of the restored Hooks Creek and meadow, to ensure potential impacts remain less than significant.

Drainage features D-1 and D-3 will not be impacted by the proposed Project. Drainage feature D-3 occurs on the south side of SR-18 and west of the existing southern parking lot. The project is required to widen SR-18 with additional lanes and install a signalized intersection located at the project driveways on SR-18. The widening and associated fill will impact drainage feature D-2 up to approximately 50 feet in length, directly adjacent to SR-18. These impacts will require a CWA Section 404 permit from USACE and a CWA Section 401 Water Quality Certification from the Santa Ana Regional Water Quality Control Board. These impacts will also require a SAA from CDFW. Implementation of mitigation measure MM BIO-25 will reduce project impacts to drainage feature D-2 to less than significant levels.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the existing dirt road and Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities. The extension of Cumberland Drive is expected to be constructed at some time in the future. However, it is not known when in the future it may be constructed because it is based on future development by private property owners. If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way because it is along an existing utility easement and dirt road, future construction of a paved roadway here would not be

expected to result in impacts to the willow riparian scrub associated with Hooks Creek and the on-site pond.

### Mitigation Measures:

**MM BIO-25:** Permanent and temporary impacts to drainage feature D-2 from the widening of SR-18 shall be mitigated to less than significant levels through off-site compensatory mitigation at a minimum of 1:1 ratio for impacts, as deemed appropriate by USACE, RWQCB, and CDFW through the permitting process, which may include enhancement and restoration of Hooks Creek and Hencks Meadow.

<i>Threshold:</i>	<i>Would the Project have a substantial adverse effect on federally protected wetlands as defined by Clean Water Act Section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</i>
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**Impact 4.4-3**      **Implementation of the Project would not have a substantial adverse effect on federally protected wetlands as defined by Clean Water Act Section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. There would be *less than significant*.**

As mentioned above, the proposed project would include the realignment, expansion, and restoration of the upstream portions of Hooks Creek through a meadow restoration with NRCS. The existing creek and meadow has been degraded with wood chips from the bark beetle infestation and other sediment. Restoration of the creek and meadow would include removal of the wood chips, adding a sediment filtration pond to filter debris and aeration streams between each pond to improve the water quality.

Hooks Creek and Drainages features D-1, D-2, and D-3 all qualify as waters of the United States, and fall under the regulatory authority of the USACE and Regional Board. There is approximately 1.49 acres (5,270 linear feet) of USACE/RWQCB jurisdiction (non-

wetland waters) within the boundaries of the Project site. Based on preliminary design plans 0.18 acre of temporary impacts to Hooks Creek, a waters of the U.S., is expected to occur. However, since the NCRS is taking the federal lead in the meadow rehabilitation project they are the federal lead agency implementing Section 404 of the CWA. As a result, per consultation with USACE a CWA Section 404 permit from the USACE will not be required for this project. It is anticipated these impacts to Hooks Creek would be authorized by Regional Board through Waste Discharge Requirements or CWA Section 401 Water Quality Certification. With the proposed project improvements and permits, impacts are expected to be less than significant.

Drainage features D-1 and D-3 will not be impacted by the proposed Project. Drainage feature D-3, a non-wetland waters of the U.S., occurs on the south side of SR-18 and west of the existing southern parking lot. The project is required to widen SR-18 with additional lanes and install a signalized intersection located at the project driveways on SR-18. The widening and associated fill will impact drainage feature D-2 up to approximately 50 feet in length, directly adjacent to SR-18. These impacts will require a CWA Section 404 permit from USACE and a CWA Section 401 Water Quality Certification from the Santa Ana Regional Water Quality Control Board. Implementation of mitigation measure MM BIO-25 will reduce project impacts to drainage feature D-2 to less than significant levels.

The extension of Cumberland Drive is expected to be constructed at some time in the future. However, it is not known when in the future it may be constructed because it is based on future development by private property owners. If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way because it is along an existing utility easement and dirt road, future construction of a paved roadway here would not be expected to result in impacts to Hooks Creek and the on-site pond.

The existing on-site pond and additional three ponds (water and sediment control basins) that will be created as part of the Hencks Meadow restoration will be stocked with hatchery raised rainbow trout (*Oncorhynchus mykiss*) as part of the amenities of the proposed Project for recreational fishing. The existing pond was created and stocked by

a previous owner as a fishing pond. The pond currently supports blue gill (*Lepomis macrochiris*), crappie (*Pomoxis annularis*) and catfish. Rainbow trout will be the only species stocked in the Project ponds. The SkyPark owner/operator will coordinate its stocking activities with CDFW, the state agency that stocks rainbow trout in California's streams and lakes. One of the conditions that CDFW follows prior to stocking is to go through a Pre-Stocking Evaluation Protocol. This protocol evaluates the potential for the presence of sensitive or listed species and to assure that there will be no impacts to those species, if present, from the stocking of trout. This evaluation will be conducted by CDFW prior to issuance of permits for stocking. The existing pond does not contain sensitive or listed species that would be affected by rainbow trout stocking.

Rainbow trout are coldwater fish that have long been symbolic of clear, healthy mountain streams and lakes in North America. Because of their ability to thrive in hatcheries, rainbow trout have been introduced into much of the U.S. and now inhabit many streams and lakes throughout the country.<sup>1</sup> If rainbow trout were able to get downstream, it is not anticipated they would adversely affect any sensitive or listed species that occur in downstream water bodies. Potential impacts from stocking of rainbow trout in the on-site ponds are less than significant.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.4-4      Implementation of the Project would not 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. There would be less than significant impacts.**

<sup>1</sup> U.S. Department of Agriculture, Natural Resources Conservation Service, Wildlife Habitat Management Institute, Fish and Wildlife Habitat Management Leaflet, Number 13 Rainbow Trout (*Oncorhynchus mykiss*), May 2000, [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs143\\_010042.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_010042.pdf).

The proposed improvements will largely be confined to existing developed/disturbed areas. The undeveloped forest surrounding the existing buildings and infrastructure has the potential to support the movement of muledeer, bobcat, coyote, and black bear through and around the site. Wildlife movement through these areas will be impeded by project-related disturbance, particularly use of hiking and riding trails. However, the northern half of the project site will remain generally undisturbed and should continue to provide relatively unimpeded movement opportunities for wildlife. As a result, the project site and the surrounding open space will continue to provide opportunities for local wildlife movement, and has the potential to function as a corridor for highly mobile wildlife species.

If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way along the Project's northwest boundary, as it is located along an existing utility easement and dirt road, future construction of a paved roadway here would not be expected to substantially interfere with wildlife movement or a wildlife nursery site.

<i>Threshold:</i>	<i>Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</i>
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**Impact 4.4-5**      **Implementation of the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. There would be *less than significant impacts*.**

The SkyPark site would not conflict with local policies or ordinances protecting biological resources protecting native trees because the project does not propose to remove trees during construction. The areas that are proposed for construction have been heavily disturbed by previous development and from being used as a storage and processing site for tree lumber devastated by the bark beetle. It is the intention of the project to keep and restore the project site to a more natural setting. Therefore, less than significant impacts would occur.

*Threshold: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

**Impact 4.4-6 Implementation of the Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be *no impact*.**

The SkyPark site is not located within the boundary of any Habitat Conservation Plan, Natural Community Plan, or any other approved habitat conservation plan. Therefore, no conflict would occur.

## CUMULATIVE IMPACTS

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 substantially diminish or result in the loss of an important biological resource, or those that would conflict with Federal, State, and/or local resource conservation plans, goals, or regulations. Impacts can be 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.

Although the project site proposes the redevelopment and re-use of the existing Santa's Village attraction, the majority of the project site will continue to remain undeveloped retaining the naturally occurring habitats. As mentioned above, most of the project site's biological resources remain on the northern part of the site where only trail systems are proposed. Trails will have minimal disturbance by reducing the amount of vegetation removal and disturbance through the use of existing fire trails and any new trails would be left unpaved. With the proposed mitigation measures, avoidance measures, permits, and approval from regulatory agencies the proposed project in conjunction with other past, present, or reasonably foreseeable future projects, would not result in a significant cumulative impact related to biological resources.

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## **4.5 CULTURAL RESOURCES**

This section discusses the environmental setting, existing conditions, regulatory context and potential impacts of the proposed Project in relation to cultural, paleontological, and Tribal Cultural Resources. Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. By statute, CEQA is primarily concerned with two classes of cultural resources: “historical resources,” which are defined in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5 and “unique archaeological resources,” which are defined in Public Resources Code Section 21083.2. The information and analysis presented in this section is based on the *Cultural Resources Assessment and Historical Evaluation* prepared by BCR Consulting LLC dated April 12, 2016 (Appendix E) and publically available information such as the San Bernardino County General Plan, as well as consultation with the San Manuel Band of Mission Indians and the Soboba Band of Luiseño Indians in compliance with Assembly Bill 52 (2014).

## **ENVIRONMENTAL SETTING**

The Proposed Project site is located within unincorporated San Bernardino County as part of the Sky Forest community. The majority of the site is undeveloped area consisting of naturally occurring habitats at elevations between 5,509 to 5,884 feet above mean sea level within the Lake Arrowhead mountainous region. Dirt fire access roads traverse the Project site. The developed portions of the Project site include buildings and infrastructure associated with the Santa’s Village Amusement Park that opened in 1955. The various buildings associated with the amusement park have remained intact since the park’s closure in 1998. After the park’s closure, the parking lot on the north side of SR-18 (western portion of the project site) and the overflow parking lot south of SR-18 (southern portion of the Project site) provided a staging area for bark beetle infested lumber. The infested wood was chipped and spread out over the paved parking

lots. The lumber and chipped infested wood has largely been removed from these areas however some areas are still covered with wood chips. The Project site also includes a grassland meadow found in the southwestern portion of the Project site, north of the existing parking lot (north of SR-18) and a pond on the northwest portion of the Project site.

## **CULTURAL SETTING**

Many regional syntheses have been utilized in the archaeological literature for southern California. The following framework derives information from local studies to provide a useful overview for the project site.

### **PREHISTORIC CULTURAL SETTING**

#### ***Paleoindian (12,000 to 10,000 BP) and Lake Mojave (10,000 to 7,000 BP) Periods***

Climatic warming characterizes the transition from the Paleoindian Period to the Lake Mojave Period. This transition also marks the end of Pleistocene Epoch and ushers in the Holocene. The Paleoindian Period has been loosely defined by isolated fluted (such as Clovis) projectile points, dated by their association with similar artifacts discovered in-situ in the Great Plains. Some fluted bifaces have been associated with fossil remains of Rancholabrean mammals approximately dated to ca. 13,300-10,800 BP near China Lake in the Mojave Desert. The Lake Mojave Period has been associated with cultural adaptations to moist conditions, and resource allocation pointing to more lacustrine environments than previously. Artifacts that characterize this period include stemmed points, flake and core scrapers, choppers, hammerstones, and crescentics. Projectile points associated with the period include the Silver Lake and Lake Mojave styles. Lake Mojave sites commonly occur on shorelines of Pleistocene lakes and streams, where geological surfaces of that epoch have been identified.

#### ***Pinto Period (7,000 to 4,000 BP)***

The Pinto Period has been largely characterized by desiccation of southern California. As formerly rich lacustrine environments began to disappear, the artifact record reveals more sporadic occupation of the drier regions, indicating occupants' recession into the cooler fringes. Pinto Period sites are rare, and are characterized by surface manifestations that usually lack significant insitu remains. Artifacts from this era include Pinto projectile

points and a flake industry similar to the Lake Mojave tool complex, though use of Pinto projectile points as an index artifact for the era has been disputed. Milling stones have also occasionally been associated with sites of this period.

#### ***Gypsum Period (4,000 to 1,500 BP)***

A temporary return to moister conditions during the Gypsum Period is postulated to have encouraged technological diversification afforded by the relative abundance of available resources. Lacustrine environments reappear and begin to be exploited during this era. Concurrently a more diverse artifact assemblage reflects intensified reliance on plant resources. The new artifacts include milling stones, mortars, pestles, and a proliferation of Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched dart points. Other artifacts include leaf-shaped projectile points, rectangular-based knives, drills, large scraper planes, choppers, hammer stones, shaft straighteners, incised stone pendants, and drilled slate tubes. The bow and arrow appears around 2,000 BP, evidenced by the presence of a smaller type of projectile point, the Rose Spring point.

#### ***Saratoga Springs Period (1,500 to 800 BP)***

During the Saratoga Springs Period regional cultural diversifications of Gypsum Period developments are evident. Influences from Patayan/Yuman assemblages are apparent in the southern inland areas, and include buff and brown wares often associated with Cottonwood and Desert Side-notched projectile points. Obsidian becomes more commonly used throughout southern California and characteristic artifacts of the period include milling stones, mortars, pestles, ceramics, and ornamental and ritual objects. Large villages evidence more structured settlement patterns, and three types of identifiable archaeological sites (major habitation, temporary camps, and processing stations) emerge. Diversity of resource exploitation continues to expand, indicating a much more generalized, somewhat less mobile subsistence strategy.

#### ***Shoshonean Period (800 BP to Contact)***

The Shoshonean period is the first to benefit from contact-era ethnography –and is subject to its inherent biases. Interviews of living informants allowed anthropologists to match artifact assemblages and particular traditions with linguistic groups, and plot them geographically. During the Shoshonean Period, continued diversification of site

assemblages and reduced Anasazi and Yuman influence both coincide with the expansion of Numic (Uto-Aztecan language family) speakers across the Great Basin, Takic (also Uto-Aztecan) speakers into southern California, and the Hopi across the Southwest. Hunting and gathering continued to diversify, and the diagnostic arrow points include desert side-notch and cottonwood triangular, which have been locally recorded. Ceramics continue to proliferate, though are more common in the desert during this period. Trade routes have become well established between coastal and inland groups during this period.

#### *ETHNOGRAPHY*

##### ***Serrano***

The generic term "Serrano" has been applied to four groups, each with distinct territories: the Kitanemuk, Tataviam, Vanyume, and Serrano. Only one group, in the San Bernardino Mountains and West-Central Mojave Desert, ethnically claims the term Serrano. The Vanyume, an obscure Takic population, was found along the Mojave River at the time of Spanish contact. The Kitanemuk lived to the north and west, while the Tataviam lived to the west. All may have used the western San Bernardino County area seasonally. Serrano villages consisted of small collections of willow-framed domed structures situated near reliable water sources. A lineage leader administered laws and ceremonies from a large ceremonial house centrally located in most villages. Local Serrano relied heavily on acorns and piñon nuts for subsistence, although roots, bulbs, shoots, and seeds supplemented these. When available, game animals commonly included deer, mountain sheep, antelope, rabbits, small rodents, and various birds – particularly quail.

#### *HISTORY*

Historic-era California is generally divided into three periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present).

### *Spanish Period*

The first European to pass through the area is thought to be a Spaniard called Father Francisco Garces. Having become familiar with the area, Garces acted as a guide to Juan Bautista de Anza, who had been commissioned to lead a group across the desert from a Spanish outpost in Arizona to set up quarters at the Mission San Gabriel in 1771 near what today is Pasadena. Garces was followed by Alta California Governor Pedro Fages, who briefly explored the region in 1772. Searching for San Diego Presidio deserters, Fages had traveled through Riverside to San Bernardino, crossed over the mountains into the Mojave Desert, and then journeyed westward to the San Joaquin Valley.

### *Mexican Period*

In 1821, Mexico overthrew Spanish rule and the missions began to decline. By 1833, the Mexican government passed the Secularization Act, and the missions, reorganized as parish churches, lost their vast land holdings, and released their neophytes.

### *American Period*

The American Period, 1848–Present, began with the Treaty of Guadalupe Hidalgo. In 1850, California was accepted into the Union of the United States primarily due to the population increase created by the Gold Rush of 1849. The cattle industry reached its greatest prosperity during the first years of the American Period. Mexican Period land grants had created large pastoral estates in California, and demand for beef during the Gold Rush led to a cattle boom that lasted from 1849–1855. However, beginning about 1855, the demand for beef began to decline due to imports of sheep from New Mexico and cattle from the Mississippi and Missouri Valleys. When the beef market collapsed, many California ranchers lost their ranchos through foreclosure. A series of disastrous floods in 1861–1862, followed by a significant drought further diminished the economic impact of local ranching. This decline combined with ubiquitous agricultural and real estate developments of the late 19th century, set the stage for diversified economic pursuits that have continued to proliferate to this day.

## REGULATORY FRAMEWORK

### FEDERAL

#### *SECTION 106 FOR THE NATIONAL HISTORICAL PRESERVATION ACT (NHPA) OF 1966*

Federal regulations for cultural resources are governed primarily by Section 106 of the NHPA of 1966. Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) §800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 CFR 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, projects by private developers and landowners that do not require a federal permit or funding are not required to comply with Section 106. However, if a private sector project requires a federal permit or if it uses federal money then compliance with Section 106 is required.

#### *NATIONAL REGISTER OF HISTORIC PLACES (NRHP)*

The NRHP is "an authoritative guide to be used by Federal, State, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." However, the Federal regulations explicitly provide that a listing of private property on the NRHP "does not prohibit under federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property."

"Historic properties," as defined by the Advisory Council on Historic Preservation, include any "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior" (36 CFR

§800.16(I)). Eligibility for inclusion in the NRHP is determined by applying the following criteria, developed by the National Park Service in accordance with the NHPA:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

1. that are associated with events that have made a significant contribution to the broad patterns of our history; or
2. that are associated with the lives of persons significant in our past; or
3. that embody 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
4. that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

## STATE

State historic preservation regulations affecting the project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] §20183.2 and §21084.1 and §15064.5 of State CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript, which is historically or archaeologically significant (PRC §5020.1). Section 15064.5 of the State CEQA Guidelines specifies criteria for evaluating the significance or importance of cultural resources, including:

- The resource is associated with events that have made a contribution to the broad patterns of California history;
- The resource is associated with the lives of important persons from our past;

- The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values; or
- The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associates and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains.

#### *SENATE BILL 18*

California Senate Bill (SB) 18, effective September 2004, requires local government to notify and consult with California Native American tribes when the local government is considering adoption or amendment of a general or specific plan. Prior to adoption of a specific plan, a local government must refer the proposed action to those tribes that are on the Native American Heritage Commission contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period as per Government Code §65453.

#### *ASSEMBLY BILL 52*

Assembly Bill 52, effective July 2015, Section 1 of the bill states the legislature's intent as follows: 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 of the Legislature, in enacting this act, 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 the California Environmental Quality Act 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 the California Environmental Quality Act 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 the California Environmental Quality Act environmental review process, so that tribal cultural resources can be Discussion Draft Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA.

#### *CALIFORNIA REGISTER OF HISTORICAL RESOURCES (CRHR)*

In 1992, the Governor signed Assembly Bill (AB) 2881 into law, establishing the California Register of Historical Resources (CRHR). The CRHR is an authoritative guide in California 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. The criteria for eligibility

for the CRHR are based upon NRHP criteria. Certain resources are determined by the statute to be included on the CRHR, including California properties formally determined eligible for, or listed in, the NRHP, State Landmarks, and State Points of Interest.

The State Office of Historic Preservation (OHP) has broad authority under Federal and State law for the implementation of historic preservation programs in the State of California. The State Historic Preservation Officer (SHPO) makes determinations of eligibility for listing on the NRHP and the CRHR.

For a property to be eligible for inclusion on the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
2. It is associated with the lives of persons important to local, California, or U.S. history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of a master, possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resources." (CCR 4852 [d][2]). The California Register also requires that a resource possess integrity. This is defined as the ability for the resource to convey its significance through seven aspects: location, setting, design, materials, workmanship, feeling, and association.

The appropriate standard for evaluating "substantial adverse effect" is defined in PRC §5020.1(q) and 21084.1. Substantial adverse change means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be

impaired. Such impairment of significance would be an adverse impact on the environment.

Cultural resources consist of buildings, structures, objects, or archeological sites. Each of these entities may have historic, architectural, archaeological, cultural, or scientific importance. Under State CEQA Guidelines, a significant impact would result if the significance of a cultural resource would be changed by Project Area activities. Activities that could potentially result in a significant impact consist of demolition, replacement, substantial alteration, and relocation of the resource. The significance of a resource is required to be determined prior to analysis of the level of significance of project activities. The steps required to be implemented to determine significance in order to comply with State CEQA Guidelines are:

- Identify cultural resources;
- Evaluate the significance of the cultural resources based on established thresholds of significance;
- Evaluate the effects of a project on all cultural resources; and
- Develop and implement measures to mitigate the effects of the project on significant cultural resources.

Sections 6253, 6254, and 6254.10 of the California Code authorize State agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (CPRA; Government Code [GC] §6250 et. seq.) and California's open meeting laws (The Brown Act, GC §54950 et. seq.) protect the confidentiality of Native American cultural place information. The CPRA (as amended, 2005) contains two exemptions that aid in the protection of records relating to Native American cultural places by permitting any state or local agency to deny a CPRA request and withhold from public disclosure:

- "records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in §5097.9 and §5097.993 of the Public Resources Code maintained by, or in the possession of, the Native American Heritage Commission, another state agency, or a local agency" (GC §6254(r)); and

- “records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency” (GC §6254.10).

Likewise, the Information Centers of the California Historical Resources Information System (CHRIS) maintained by the OHP prohibit public dissemination of records and site location information. In compliance with these requirements, and those of the Code of Ethics of the Society for California Archaeology and the Register of Professional Archaeologists, the locations of cultural resources are considered restricted information with highly restricted distribution and are not publicly accessible.

Any project site located on non-Federal land in California is also required to comply with State laws pertaining to the inadvertent discovery of Native American human remains.

*CALIFORNIA HEALTH AND SAFETY CODE §7050.5, §7051, AND §7054*

California Health and Safety Code §7050.5, §7051, and §7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

**LOCAL***SAN BERNARDINO COUNTY GENERAL PLAN*

Cultural and historic sites or resources listed in the national, state, or local registers maintained by the County are protected through the San Bernardino County General Plan goals and policies to preserve and promote its cultural heritage. The County's General Plan "Goal Co 3." and "Goal M/Co 4." provide policies to ensure significant cultural and paleontological resources within the County are identified, promoted, and protected.

**Goal:**

- CO 3** The County will preserve and promote its historic and prehistoric cultural heritage.

**Policies:**

- CO 3.1** Identify and protect important archaeological and historic cultural resources in areas of the County that have been determined to have known cultural resource sensitivity.

**Programs**

1. Require a cultural resources field survey and evaluation prepared by a qualified professional for projects located within the mapped Cultural Resource Overlay area.
2. Mitigation of impacts to important cultural resources will follow the standards established in Appendix K of the California Environmental Quality Act Guidelines, as amended to date.

- CO 3.2** Identify and protect important archaeological and historic cultural resources in all lands that involves disturbance of previously undisturbed ground.

**Programs**

1. Require the Archaeological Information Center at the San Bernardino County Museum to conduct a preliminary cultural resource review prior to the

County's application acceptance for all land use applications in planning regions lacking Cultural Resource Overlays and in lands located outside of planning regions.

2. Should the County's preliminary review indicate the presence of known cultural resources or moderate to high sensitivity for the potential presence of cultural resources, a field survey and evaluation prepared by a qualified professional will be required with project submittal. The format of the report and standards for evaluation will follow the "Guidelines for Cultural Resource Management Reports" on file with the San Bernardino County Land Use Services Department.

**CO 3.3** Establish programs to preserve the information and heritage value of cultural and historical resources.

**CO 3.4** The County will comply with Government Code Section 65352.2 (SB 18) by consulting with tribes as identified by the California Native American Heritage Commission on all General Plan and specific plan actions.

**Programs**

1. Site record forms and reports of surveys, test excavations, and data recovery programs will be filed with the Archaeological Information Center at the San Bernardino County Museum, and will be reviewed and approved in consultation with that office.
  - a. Preliminary reports verifying that all necessary archaeological or historical fieldwork has been completed will be required prior to project grading and/or building permits.
  - b. Final reports will be submitted and approved prior to project occupancy permits.

2. Any artifacts collected or recovered as a result of cultural resource investigations will be catalogued per County Museum guidelines and adequately curated in an institution with appropriate staff and facilities for their scientific information potential to be preserved. This shall not preclude the local tribes from seeking the return of certain artifacts as agreed to in a consultation process with the developer/project archaeologist.
3. When avoidance or preservation of an archaeological site or historic structure is proposed as a form of mitigation, a program detailing how such long-term avoidance or preservation is assured will be developed and approved prior to conditional approval.
4. In areas of potential but unknown sensitivity, field surveys prior to grading will be required to establish the need for paleontologic monitoring.
5. Projects requiring grading plans that are located in areas of known fossil occurrences, or demonstrated in a field survey to have fossils present, will have all rough grading (cuts greater than 3 feet) monitored by trained paleontologic crews working under the direction of a qualified professional, so that fossils exposed during grading can be recovered and preserved. Fossils include large and small vertebrate fossils, the latter recovered by screen washing of bulk samples.
6. A report of findings with an itemized accession inventory will be prepared as evidence that monitoring has been successfully completed. A preliminary report will be submitted and approved prior to granting of building permits, and a final report will be submitted and approved prior to granting of occupancy permits.

The adequacy of paleontologic reports will be determined in consultation with the Curator of Earth Science, San Bernardino County Museum.

**CO 3.5** Ensure that important cultural resources are avoided or minimized to protect Native American beliefs and traditions.

**Programs**

1. Consistent with SB 18, as well as possible mitigation measures identified through the CEQA process, the County will work and consult with local tribes to identify, protect and preserve "traditional cultural properties" (TCPs). TCPs include manmade sites and resources as well as natural landscapes that contribute to the cultural significance of areas.
2. The County will protect confidential information concerning Native American cultural resources with internal procedures, per the requirements of SB 922, an addendum to SB 18. The purpose of SB 922 is to exempt cultural site information from public review as provided for in the Public Records Act. Information provided by tribes to the County shall be considered confidential or sacred.
3. The County will work in good faith with the local tribes, developers/applicants and other parties if the local affected tribes request the return of certain Native American artifacts from private development projects. The developer is expected to act in good faith when considering the local tribe's request for artifacts. Artifacts not desired by the local tribe will be placed in a qualified repository as established by the California State Historical Resources Commission. If no facility is

available, then all artifacts will be donated to the local tribe.

4. The County will work with the developer of any "gated community" to ensure that the Native Americans are allowed future access, under reasonable conditions, to view and/or visit known sites within the "gated community." If a site is identified within a gated community project, and preferably preserved as open space, the development will be conditioned by the County allow future access to Native Americans to view and/or visit that site.
5. Because contemporary Native Americans have expressed concern over the handling of the remains of their ancestors, particularly with respect to archaeological sites containing human burials or cremations, artifacts of ceremonial or spiritual significance, and rock art, the following actions will be taken when decisions are made regarding the disposition of archaeological sites that are the result of prehistoric or historic Native American cultural activity:
  - a. The Native American Heritage Commission and local reservation, museum, and other concerned Native American leaders will be notified in writing of any proposed evaluation or mitigation activities that involve excavation of Native American archaeological sites, and their comments and concerns solicited.
  - b. The concerns of the Native American community will be fully considered in the planning process.

- c. If human remains are encountered during grading and other construction excavation, work in the immediate vicinity will cease and the County Coroner will be contacted pursuant to the state Health and Safety Code.
- d. In the event that Native American cultural resources are discovered during project development and/or construction, all work in the immediate vicinity of the find will cease and a qualified archaeologist meeting U.S. Secretary of Interior standards will be hired to assess the find. Work on the overall project may continue during this assessment period.
- e. If Native American cultural resources are discovered, the County will contact the local tribe. If requested by the tribe, the County will, in good faith, consult on the discovery and its disposition with the tribe.

**Goal:**

**M/CO 4** Protect cultural and paleontological resources within the Mountain Region.

**Policies:**

**M/CO 4.1** Identify and protect significant cultural resources from damage or destruction.

**M/CO 4.2** Inventory Cultural Resources, encouraging inputs from the local historical society and committees.

**M/CO 4.3** Prepare a Historical/Archeological Overlay for community plan areas in developing land use designations and the formulation and evaluation of plan amendments and development proposals to provide a more systematic and streamlined method of protecting important cultural resources.

## THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on CEQA Guidelines Appendix G. For purposes of this Draft EIR, implementation of the Project would be considered to have a significant impact on cultural resources if it would do any of the following:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Have a substantial adverse effect on a Tribal Cultural Resource;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources;
- Disturb any human remains, including those interred outside of formal cemeteries.

## PROJECT IMPACTS AND MITIGATION

*Threshold: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?*

**Impact 4.5-1**      **Implementation of the Project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. This impact would be less than significant with mitigation incorporated.**

The proposed Project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance. The criteria for determining the significance of impacts to cultural resources are based on Section 15064.5 of the CEQA Guidelines and Guidelines for the Nomination of Properties to the California Register. CEQA (PRC Chapter 2.6, Section 21083.2 and

CCR Title 145, Chapter 3, Article 5, Section 15064.5) calls for the evaluation and recordation of historic and archaeological resources.

Santa's Village opened in Spring, 1955, just weeks before Disneyland opened in Anaheim. It was an inheritor of the older tradition of family-run amusement parks and also part of the mid-century efflorescence of more ambitious theme parks in Southern California. Aspects of its management were groundbreaking, and included franchising and emphasis on sale of merchandise. In 1957, the Santa's Village Corporation sold the right to construct a second Santa's Village near Santa Cruz, California, becoming the first franchised amusement park. By 1959, Santa's Village Corporation had opened a third location. Expectedly, during the field survey and research by BCR Consulting, Santa's Village Historic District (P-36-12758) was identified within the Proposed Project's boundaries. The Santa's Village Historic District includes a cluster of storybook-style buildings located in a meadow that is set within a much larger wooded area. When it opened in 1955 the attraction included eleven buildings and two rides. More buildings and rides were added over the years, mostly in the 1960s and most rides were later removed after the park closed. Today, there are 20 buildings as well as several decorative theme structures and a monorail ride on the site. For the most part, the main building facades or primary entrances face the "village square" at the center of the site, where Santa's House is located. Non-orthogonal paths wind through the site around the buildings, theme features, and natural features, giving the park a strongly rural character. The buildings are laid out organically to fit into the natural grad and vegetation of the site.

The primary buildings of Santa's Village Historic District, most of which date from its original development in 1954, are storybook versions of log cabins. Although a handful are substantial buildings, most are under 1,000 square feet, and some are as small as 200 square feet. All are constructed of logs harvested and milled on the site. Rather than the simple, low-pitched roofs typically found on log cabins, however, these buildings feature steeply pitched roofs and elaborate decorative elements. Architectural elaborations that suggest traditional Swiss chalets and fanciful ornamental wood trim are grafted onto the cabins to create hybrid storybook buildings. Decorative features include half-timbering and multiple-light windows with diamond-shaped panes at the gables, shutters with

Christmas-theme cutouts, carved doors, and heavily ornamental fascia boards and window surrounds. Plans are rectangular, L-shaped, or irregular, and all buildings have concrete foundations. Two buildings at the southeast corner of the complex, which were constructed circa 1961, differ from the storybook log cabin template. Alice-in-Wonderland is an irregular-plan building constructed mostly of concrete, with sections that mimic a giant tree stump, a small gable-roof house, and a large boulder. It was originally used as an Alice-in-Wonderland-theme funhouse-type attraction. The good Witch Bakery is also constructed of concrete with a "frosting" roof and a section that looks like a giant cupcake, the structure looks like a fairy-tale gingerbread house.

Other theme structures include: a giant candy cane in front of the entrance building, "north pole," giant concrete toadstools near Santa's House and scattered throughout the complex, a gunite-clad "stone" tunnel, and a small concrete "castle." In addition, the structure of a circa-1961 Bumble Bee Monorail winds through the center of the complex. Original rides such as the Christmas Tree and Train Ride have been removed.

Based on the results of the *Cultural Resources Assessment/ Historical Evaluation*, Santa's Village Historic District appears eligible for listing in the California Register with the themes of tourism and theme park development under both Criterion 1 and 3. Santa's Village opened in Spring, 1955, just weeks before Disneyland opened in Anaheim. It was an inheritor of the older tradition of family-run amusement parks and also part of the mid-century efflorescence of more ambitious theme parks in Southern California. Aspects of its management were ground-breaking, and included franchising and emphasis on sale of merchandise. For over four decades, Santa's Village Sky Forest was also an important institution in its small community. Not only did it provide a unique recreation opportunity for a rural area, it stimulated the local economy and provided jobs for over 5,000 local residents over the years. In addition to its historical significance, Santa's Village is significant for its unique architecture. The buildings are vernacular fantasy cottages combining elements of traditional western log cabins with fanciful interpretations of alpine chalets. Although businessman H. Glenn Holland was the initial driving force behind the project, the designs of the buildings evolved during construction and re the result of collaboration between several individuals. In addition to Holland's vision, general contractor J. Putnam Henck, architect/draftsman Roy Hatch, plasterer

Harvey Smith, and artists James Wyatt and Ellen Kroger all made important contributions to the design of the buildings and theme structures.

The Proposed Project involves alteration to the interiors of the buildings and restoration of the exteriors of the buildings that are part of Santa's Village Historic District. Therefore, Mitigation Measure CR-1 (MM CR-1) shall be implemented to retain the current integrity of the Santa's Village Historic District. MM CR-1 would reduce impacts to a substantial adverse change in a historical resource to less than significant.

#### MM CR-1

#### Changes to Historical Resource

- Project activities shall be consistent with "plans for rehabilitation to ensure that the undertaking maintains consistency with the Secretary's Standards for the Treatment of Historic Properties" (36 CFR part 68; see <http://www.nps.gov/tps/standards/rehabilitation/rehab/stand.htm>). The Standards are intended to pertain to rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.
- Project design shall be prepared and applied in consultation with a professional that meets the U.S. Secretary of the Interior Professional Qualification Standards for Historic Architecture (see [http://www.nps.gov/history/local-law/arch\\_stnds\\_9.htm](http://www.nps.gov/history/local-law/arch_stnds_9.htm)).

<i>Threshold:</i>	<i>Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?</i>
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#### Impact 4.5-2

**Implementation of the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. This impact would be less than significant with mitigation incorporated.**

The proposed project site would not cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5. As mentioned above, the criteria for determining the significance of impacts to cultural resources are based on Section 15064.5 of the CEQA Guidelines and Guidelines for the Nomination of Properties to the California Register. Properties eligible for listing in the California Register and subject to review under CEQA are those meeting the criteria for listing in the California Register, National Register, or designation under a local ordinance.

During the field survey and research by BCR Consulting, one prehistoric archaeological site, named P-36-929, was identified. This site was originally recorded in 1969 as a fairly old prehistoric artifact scatter containing "chippings [and a] portable metate." The original site record notes that the resource is in a meadow and may have been destroyed. BCR Consulting archaeologists attempted to relocate the prehistoric artifact scatter previously designated P-36-929. Limited test excavations were also performed to elicit evidence for any remnants of a buried prehistoric site component. The field survey and limited test excavations yielded no evidence for prehistoric cultural resources remaining within the plotted boundaries of this prehistoric site. As a result, prehistoric site P-36-929 is not recommended eligible for the California Register, and is not recommended a "historical resource" under CEQA. This prehistoric site does not warrant further controlled excavation.

Although no remnants of the prehistoric site were recorded during the current efforts, based on the limited nature of test excavations combined with previous prehistoric resources recorded within the project site boundaries, the overall project site is considered potentially sensitive for buried cultural resources. Therefore, implementation of Mitigation Measure CR-2 (MM CR-2) would reduce impacts to a substantial adverse change in an archaeological resource to less than significant.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the existing dirt road and Edison and gas easement

along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities. The extension of Cumberland Drive is expected to be constructed at some time in the future. However, it is not known when in the future it may be constructed because it is based on future development by private property owners. If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way, this alignment is along an existing utility easement and dirt access road. The alignment has already been disturbed from excavation for the installation of utility lines and backfill and compacted as it is also used for an access road. Future construction of a paved roadway along this alignment would not be expected to result in impacts to sensitive archaeological resources as it has already disturbed.

**MM CR-2****Changes to an Archaeological Resource**

- An archaeological monitor shall be present during any earthmoving activities proposed within the project site boundaries. The monitor shall work under the direct supervision of a cultural resource professional who meets the Secretary of the Interior's Professional Qualification Standards for archaeology. The monitor shall be empowered to temporarily halt or redirect construction work in the vicinity of any find until the project archaeologist can evaluate it.
- In the event of a new find, salvage excavation and reporting shall be required.

<i>Threshold:</i>	<i>Would the Project have a substantial adverse effect on a Tribal Cultural Resource?</i>
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**Impact 4.5-3**      **Implementation of the Project would not have a substantial adverse effect on a Tribal Cultural Resource. This impact would be less than significant.**

The County sent notification of the proposed Project to all tribes that requested notification from the County pursuant to AB 52 in letters on August 21, 2015. Two tribes, the Soboba Band of Luiseño Indians and the San Manuel Band of Mission Indians, requested consultation with the County. The County met with the Soboba Band of Luiseño Indians on October 22, 2015 in which they deferred to the San Manuel Band of Mission Indians. The County met with the San Manuel Band of Mission Indians on December 22, 2015, where they indicated there were no tribal resources of concern on the Project site that would require further consultation, avoidance or mitigation. Implementation of the Project would not have a substantial effect on a Tribal Cultural Resource, and potential impacts are less than significant.

<i>Threshold:</i>	<i>Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?</i>
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**Impact 4.5-4**      **Implementation of the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources. This impact would be less than significant.**

The proposed project area would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. BCR Consulting was responsible for the paleontological resources research for the Proposed Project and coordinated with the Los Angeles Natural History Museum for a records search of any documented paleontological resources within and around the Proposed Project's site. BCR Consulting thus found the Proposed Project site lays on top of bedrock that is

comprised of plutonic igneous rock. The igneous bedrock found throughout the entire Proposed Project area would not uncover any vertebrate fossils from excavation.

Hooks Creek and the meadow within the Proposed Project site may contain surface deposits of younger Quaternary Alluvium. However, no significant vertebrate fossils have been previously found within or around the Proposed Project area. Thus, surface grading or shallow excavations in the younger Quaternary Alluvium that may be present in the western portion of the Proposed Project site are unlikely to uncover significant vertebrate fossils.

It is unlikely that any significant vertebrate fossils would be encountered during excavations in the Proposed Project site because these deposits are most likely quite shallow and underlain by the igneous bedrock found elsewhere in the Proposed Project site. Therefore, no paleontological mitigation measures are anticipated for the Proposed Project. Less than significant impacts would occur.

If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way, this alignment is along an existing utility easement and dirt access road. The alignment has already been disturbed from excavation for the installation of utility lines and backfill and compacted as it is also used for an access road. Future construction of a paved roadway along this alignment would not be expected to result in impacts to sensitive paleontological resources or unique geological features as it has already disturbed.

<i>Threshold:</i>	<i>Would the Project disturb any human remains, including those interred outside of formal cemeteries?</i>
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**Impact 4.5-5**      **Implementation of the Project would not disturb any human remains, including those interred outside of formal cemeteries. This impact would be *less than significant with mitigation incorporated.***

The proposed project area is not anticipated to disturb any human remains, including those interred outside of formal cemeteries. Human remains have not been previously discovered within the Proposed Project site. Although human remains are not anticipated to be unearthed from the proposed project, in the event that human remains are discovered Mitigation Measure CR-3 (MM CR-3) would be implemented.

**MM CR-3****Encountering Human Remains**

- If human remains are encountered during the project activities, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately.
- If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

With the incorporation of MM CR-3, impacts are anticipated to be less than significant.

**CUMULATIVE IMPACTS**

The cumulative effect of projects located in the County would have the potential to result in the loss of historical resources through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of a cultural resource would be materially impaired. Projects in the County are regulated by Federal, State, and local regulations as discussed the regulatory section of this chapter. Specifically, these regulations include the Mills Act, PRC Section 5097, State Health and

Safety Code 18950-1896, and the Secretary of the Interior's Standards for Rehabilitation and Standards for the Treatment of Historic Properties. Because the Project does not have a significant and unavoidable impact on cultural resources or Tribal Cultural Resources, and because the Project and other cumulative projects in the County would be required to comply with the above mentioned regulations, the proposed Project, in combination with cumulative projects, would have a less than significant cumulative impact on cultural resources or Tribal Cultural Resources.

In the event of an unanticipated discovery of historic, archeological, or paleontological resources during construction of the proposed Project, Mitigation Measures CR-1, CR-2, and CR-3 ensure that impacts would be mitigated to a less than significant level. Public Resources Code and the California Health and Safety Code mandate the process of how to handle the discovery of any human remains and would reduce impacts to a less than significant level.

## SECTION 4.6

# GEOLOGY, SOILS, AND SEISMICITY

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## 4.6 GEOLOGY, SOILS, AND SEISMICITY

This section describes the geology, soils, and seismicity setting and potential environmental impacts, as they pertain to implementation of the proposed Project. Information for this section was obtained from the *County of San Bernardino General Plan* (2007), the *Lake Arrowhead Community Plan* (2007), the *Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS)* website, the *California Cooperative Forest Management Plan* (Appendix B), the *Jurisdictional Delineation* (Appendix D), the *Engineer's Septic System Memo* (Appendix F), and *Environmental Impacts of Mountain Biking: Science Review and Best Practices*<sup>1</sup>.

### ENVIRONMENTAL SETTING

#### SITE HISTORY AND DESCRIPTION

The surface of the site consists of relatively flat ground along the western perimeter of the proposed Project with moderately northeastern sloping on the eastern portion of the site. The proposed campground site is relatively flat but gently sloping to the southeast. These elevated areas are not proposed to be designated campgrounds, accordingly flat grounds on this site would be a typical campground designation.

#### REGIONAL GEOLOGIC SETTING

The San Bernardino Mountains are situated in a geomorphic province in southern California known as the Transverse Ranges. The Transverse Ranges consist of a set of east-west trending mountains and geologic structures that extend from the little San Bernardino Mountains near Joshua Tree to the Channel Islands. Situated in the mid-eastern portion of the ranges, the San Bernardino Mountains are approximately 55 miles long and 20 miles wide.

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<sup>1</sup> <https://www.imba.com/resources/research/trail-science/environmental-impacts-mountain-biking-science-review-and-best-practices>

Geologically, the San Bernardino Mountains contain a highly varied distribution of materials ranging from igneous intrusive rocks to older metamorphic gneiss. United States Geologic Survey (USGS) maps show that significant portions of the mountains are underlain by crystalline granite rock comprised of Quartz Monzonite. The San Bernardino Mountains were formed by rock uplift through tectonic compression activity along the San Andreas and North Frontal fault zones. From a geologic perspective, these mountains are young, having been formed during the last one to two million years.

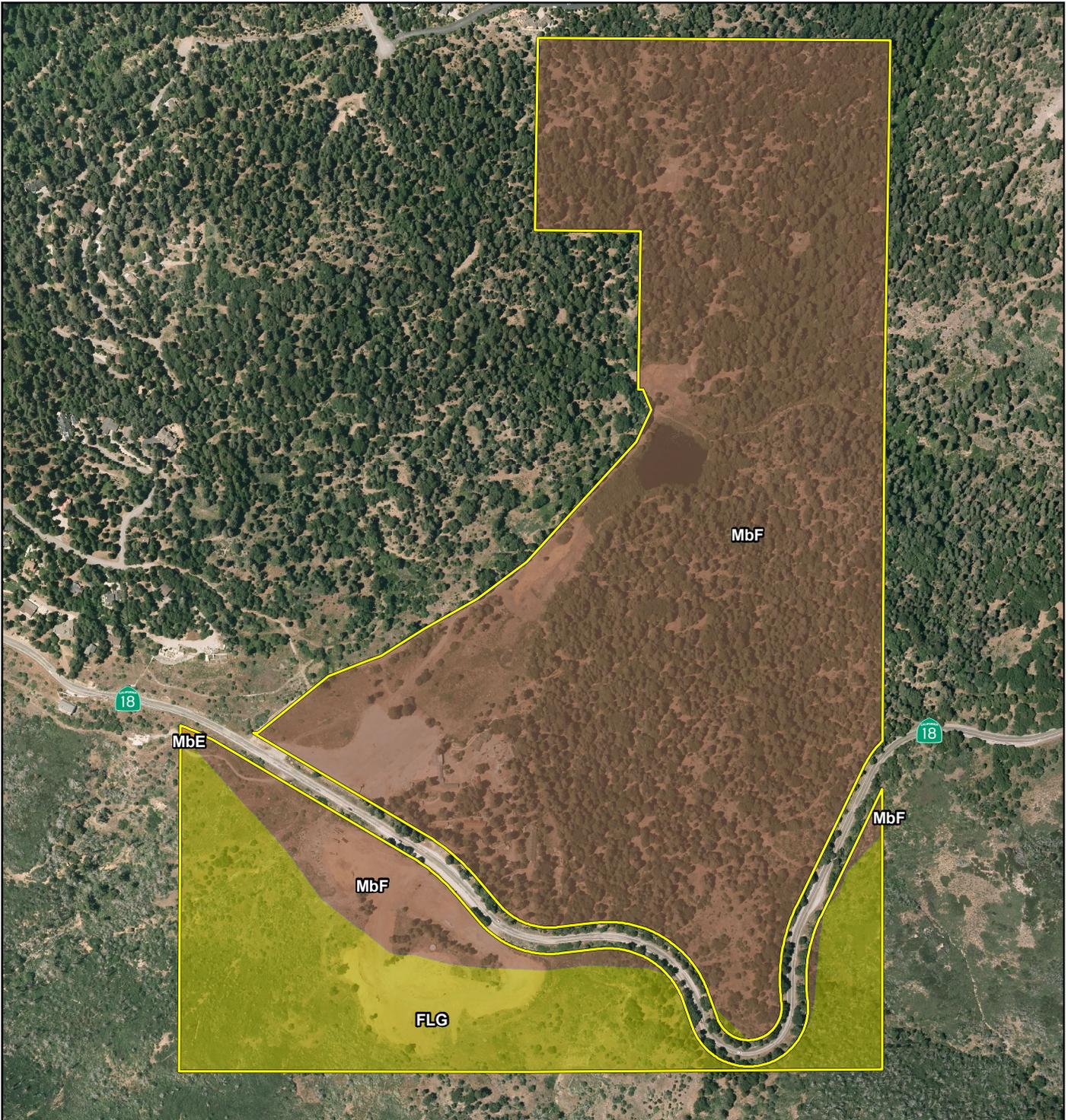
Uplifting along the south side of the San Bernardino Mountains has caused intense fracturing of the rocks, which simultaneously lowers stability and over-steepens slopes. This combination of fracturing and steep slopes leads to landslides along the southern portion of the mountains.

#### **SITE GEOLOGIC CONDITIONS**

According to the San Bernardino County Land Use Services Geologic Hazard Map, the project site is located within the Geologic Hazard Overlay. The majority of the site is located on low to moderate land slide susceptibility (north of SR-18), and there are small portions of the site (south of SR-18) that are moderate to high landslide susceptibility.

Soils on the Project site were identified and mapped by the United States Department of Agriculture (USDA) NRCS WSS. The primary soil series underlying the site are comprised of the Morical-Wind River families' complex (30-50% slopes) and Springdale family-Lithic Xerothents association (50-75% slopes), refer to Exhibit 4.6-1.

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**Legend**

-  Property Boundary
-  **MbE** Morical-Wind River families complex, 15 to 30 percent slopes
-  **MbF** Morical-Wind River families complex, 30 to 50 percent slopes
-  **FLG** Springdale family-Lithic Xerorthents association, dry, 50 to 75 percent slopes

SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT

# Soil Types

Exhibit 4.6-1



Source: San Bernardino County, NRCS Soils Data Mart-CA777, Eagle Aerial 2013

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The Springdale family-Lithic Xerothents association consists of excessively drained, moderate depth, very gravelly coarse sand that formed from residuum weathered from granite. These soils are on mountainous uplands and have slopes of 50 to 75%. The elevation ranges from 3,000 to 7,000 feet. Mean annual precipitation is between 15 and 25 inches and the mean annual air temperature is between 46 and 54 degrees Fahrenheit. The current vegetation is mainly grass and shrubs, primarily being ceanothus and black oak sprouts. These associated soils are used mainly for range, watershed and wildlife habitat.

Morical-Wind River families consists of well-drained, moderately deep sandy loam that formed from residuum weathered from granite. These soils are on mountainous uplands and have slopes of 15 to 50%. The elevation ranges from 3,000 to 7,000 feet. Mean annual precipitation is between 130 and 35 inches, and the mean annual temperature is between 46 and 54 degrees Fahrenheit. The vegetation is mainly semi-dense to open stands of timber, grass, and shrubs. Dominant species found on this soil are Incense Cedar (*Calocedrus decurrens*) and white fir (*Abies concolor*). Morical-Wind River family's complex soils are used for limited range, wildlife habitat, recreation and watershed.

The Table 4.6-1 below compares Springdale-Lithic Xerothents and Morical Wind River soils with respect to several associated characteristics, including: average depth, surface texture, surface runoff rating, erosion hazard rating, water holding capacity, suitability for forest management, and limitations for development, specifically camping uses.

**Table 4.6-1: Soil Map and Characteristics**

Mapping Unit	Map Symbol	Average Depth (inches)	Surface Texture	Surface Runoff Rating	Erosion Hazard Rating	Water Holding Capacity (inches)	Suitability for Forest Management	Limitations for Camp Areas
Springdale-Lithic Xerothents	FLG	45-49	Very Gravelly, Coarse Sand	High	High	2.5	Poor	Very Limited
Morical-Wind River	MbF	50-54	Sandy Loam	Moderate	Moderate	7.5	Good	Very Limited

Morical-Wind River soils found mostly in the northern portion of the Project site have moderate surface runoff and erosion hazard ratings compared to a high surface runoff and erosion hazard rating for the Springdale-Lithic Xerothents soils, which are found in the proposed camping area. Furthermore, the Morical-Wind River soils have a higher water holding capacity than Springdale Lithic Xerothents, thus also making it more suitable for forest management.

A USDA NRCS WSS assessment was obtained in September 2015 for the suitability and limitation of developing a camp area on the proposed Project campsite. The WSS assessment indicated that Springdale-Lithic Xerothents and Morical-Wind River soils are very limited for camp area development. Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing a restroom/shower/laundry facility and utility lines. Camp areas are also subject to heavy foot traffic and some vehicular traffic. The limitation ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Some of the main concerns taken into account for developing camp areas are slope, stoniness, and depth to bedrock. In addition, soil properties that affect the performance of the area after the development are those that influence trafficability (soil capability to bear traffic), and promote the growth of vegetation in heavily used areas. For good trafficability, the surface of the camp areas should absorb rainfall freely, remain firm during heavy foot traffic, and not be dusty when dry (NRCS WSS 2015).

When comparing both very limited soils for camp area development, numerical ratings were used to indicate the severity of individual limitations. The ratings are decimal fractions ranging from 0.01 to 1.00, as shown in Table 4.6-1. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00). Springdale-Lithic Xerothents soils main reasons for limitations were slope, too sandy, depth to rock, and gravel content. On the contrary, the main limitation for Morical-Wind River soils was slope.

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## REGULATORY FRAMEWORK

### FEDERAL

#### *FEDERAL CLEAN WATER ACT (1972)*

Coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ is required for construction activities that disturb one or more acres of soil. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is to contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) that will be used to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed as impaired for sediment.

No other Federal plans, policies, or laws related to geology, soils, or seismicity are applicable to the proposed Project.

### STATE

#### *ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT (1972)*

The purpose of the 1972 Alquist-Priolo Earthquake Fault Zoning Act is to ensure that no buildings utilized for human occupancy are constructed on the surface trace of active faults. Faults are fractures in the earth's crust where rocks move relative to one another over time. The Act includes only faults that have ruptured in the last 11,000 years called active faults. Cities and counties must demonstrate with a geological investigation that proposed buildings would not be constructed across active faults before a project can be

permitted. If the presence of an active fault is discovered, any structure used for human occupancy cannot be constructed over the trace of the fault and is required to be set back from the active fault (generally at least 50 feet). The act only addresses the hazard of surface fault rupture and is not directed towards other earthquake hazards.

*CALIFORNIA BUILDING CODE (CBC) (2013)*

The California Building Code (also known as the California Building Standards Code), outlined in Title 24 of the California Code of Regulations, provides a minimum standard to improve safety, sustainability, quality of material, and maintain consistency for the design and construction of buildings. The code requires strict building standards specific to California's unique geologic conditions such as soft soil and ground shaking from seismic activities.

*SEISMIC HAZARDS MAPPING ACT (SHMA) (1990)*

The purpose of the 1990 SHMA directs the Department of Conservation, California Geological Survey to identify and map areas prone to, liquefaction, earthquake induced landslides, amplified ground shaking, and other ground failures that occur in the State of California induced by earthquakes. The map identifies areas that are prone to these failures and serves as a guide to minimize the loss of life and property. Seismic Hazard Zone Maps also provide evaluation and guidance for mitigation of earthquake-related hazards in land use planning and the building permit processes.

**LOCAL**

*COUNTY OF SAN BERNARDINO*

The County of San Bernardino Building Regulations (Title 6, Division 3) sets forth required provisions for implementation of the Uniform Building Code (UBC) in Chapter 1, Sections 63.0101 to 63.0104; compliance with the general provision for Uniform Codes (Chapter 8, Sections 63.0801 to 63.0811); and regulations for projects on or adjacent to landslide areas (Chapter 10, Sections 63.1001 to 63.1005). In addition, the San Bernardino County Development Code (Title 8, Division 2) establishes regulations to control existing and potential conditions of human-induced accelerated erosion in County areas that are subject to potential geologic problems or within or adjacent to mountains and hillsides.

The project site is located within a Geologic Hazard Overlay because the area is susceptible to landslide activity. Therefore, development of the site would be subject to the provisions of Chapter 82.15, Geologic Hazard (GH) Overlay of the County Code. Section 82.15.0303 of the County Code requires the preparation of a detailed geologic study for development proposed within the GH Overlay that addresses the following:

- Areas of faulting;
- Areas of slope stability;
- Areas of liquefaction susceptibility;
- Areas of potential seiche; and
- Areas of adverse soil conditions.

**Goal**

**S 6** The County will protect residents from natural and manmade hazards

**Policies**

**S 6.1** Require development on hillsides to be sited in such a manner that minimizes the extent of topographic alteration required to minimize erosion, to maintain slope stability, and to reduce the potential for off- site sediment transport.

**S 6.2** Utilize the Hazard and Resources Overlay Maps to identify areas suitable or required for retention as open space. Resources and issues identified on the Overlays which indicate open space as an appropriate use may include: flood, fire, geologic, aviation, noise, cultural, prime soils, biological, scenic resources, minerals, agricultural preserves, utility corridors, water supply, and water recharge.

**S 6.3** Because public health and safety can be protected through the use of open space, the County may maintain open space

where flood, fire, geologic, seismic hazards, noise, or other conditions endanger public health and safety.

**S 6.4** To protect public safety, the County will seek to retain areas within the Prado Dam inundation area as permanent public open space. Consideration will be given to retain this area as natural open space wherever possible.

**S 6.5** Where possible, consistent with safety and operational considerations, encourage the use of active and inactive utility easement corridors (especially railway corridors, which have gentle grades that make them suitable for whole-access trails) as public open space areas and trail alignments.

### **Goal**

**S 7.** The county will minimize exposure to hazards and structural damage from geologic and seismic conditions.

### **Policies**

**S 7.1** Strive to mitigate the risks from geologic hazards through a combination of engineering, construction, land use, and development standards.

### **Programs**

1. Consider the formation of Geologic Hazard Abatement Districts as authorized by Public Resources Code Section 26500 et seq., where existing or proposed development is threatened by such hazards and prevention, mitigation, abatement or control of a geologic hazard is deemed feasible.
2. Require sites to be developed and all structures designed in accordance with recommendations contained in any required geotechnical or geologic

reports, through conditioning, construction plans, and field inspections.

3. Require that all recommended mitigation measures be clearly indicated on all grading and construction plans.
4. Require all facilities to meet appropriate geologic hazard specifications as determined by the County Geologist for discretionary and ministerial authorizations.
5. Because of the potential for displacement along faults not classified as active, the County will reserve the right to require site-specific geotechnical analysis and mitigation for development located contiguous to potentially active faults, if deemed necessary by the County Geologist.

**S 7.2** Minimize the risk of potential seismic disaster in areas where inadequate structures exist.

**Programs**

1. Have a structural hazards identification and abatement program through the Division of Building and Safety with priority given to the identification and abatement of hazards in critical, essential, and high-occupancy land uses; in structures located within areas of severe geologic hazard; and in structures built prior to enactment of applicable local or state earthquake design standards.
2. Support regional or statewide programs providing funding or technical assistance to local governments to allow accurate identification of existing structural hazards in private development and providing assistance to public and private sectors to facilitate and

to minimize the social and economic costs of abatement.

- S 7.3** Coordinate with local, regional, state, federal, and other private agencies to provide adequate protection against seismic hazards to County residents.

**Programs**

1. Continue to work with public utilities, school districts, railroads, the state Department of Transportation (Caltrans), and other agencies supplying critical public services to ensure that they have incorporated structural safety and other measures to be adequately protected from seismic hazards for both existing and proposed facilities.
2. Coordinate with utility companies to institute orderly programs of installing cut-off devices on utility lines, starting with the lines that appear to be most vulnerable and those that serve the most people. Adequate emergency water supplies will be established and maintained in areas dependent upon water lines that cross active fault zones.

- S 7.4** Designate areas identified by the Alquist-Priolo Earthquake Fault Zoning Act (Public Resource Code, Division 2, Chapter 7.5) on the Hazard Overlay Maps to protect occupants and structures from high level of risk caused by ground rupture during earthquake.

**Programs**

1. Apply the definitions, provisions, and mapping of the Alquist- Priolo Earthquake Fault Zoning Act.

2. Apply the Land Use Compatibility Chart in Earthquake Fault Zones (Table S-2) when reviewing all discretionary and ministerial applications.
3. Withhold public financing from buildings within the Earthquake Fault Zone where there is a confirmed fault trace unless it can be established that there is no potential for surface fault displacement or ground rupture that would injure the public investment or fulfillment of its purpose.
4. Do not create new lots within the Earthquake Fault Zone unless an appropriate geologic investigation establishes sufficient and suitable land area for development according to existing land use designations and other applicable County ordinances. Reassess the fault investigation exemption for single family one- and two-story residential construction within the zone.
5. Plan transportation facilities (i.e. roads, freeways, rail, rapid transit) and utility systems to cross active fault traces a minimum number of times and to be designed to accommodate fault displacement without major damage that would cause long-term and unacceptable disruption of service. Utility lines will be equipped with such mechanisms as flexible units, valving, redundant lines, or auto valves to shut off flows in the event of fault rupture.

**S 7.5**

Minimize damage cause by liquefaction, which can cause devastating structural damage and a high potential for saturation exists when the groundwater level is within the upper 50 feet of alluvial material.

**Programs**

1. Require that each site located within the Liquefaction Hazard Overlay be evaluated by a licensed geologist prior to design, land disturbance or construction, for soil type, history of the water table's fluctuation, and adequacy of the structural engineering to withstand the effects of liquefaction.
2. Apply the Land Use Compatibility Chart in Liquefaction Potential Zones (Table S-3) when reviewing all discretionary and ministerial applications.
3. Evaluate potential areas of liquefaction susceptibility that are not currently identified on the Geologic Hazard Overlay. Add areas to the Geologic Hazard Overlay based on the evaluation of susceptibility.

**S 7.6**

Protect life and property from risks resulting from landslide, especially in San Bernardino and San Gabriel Mountains that have high landslide potential.

**Programs**

1. Require that a stability analysis be required in Landslide Hazard areas designated "Generally Susceptible" and "Most Susceptible" on the Hazards Overlay Maps and where required by the County Geologist.
2. Require site development and construction comply with soil and geologic investigation report recommendations.
3. Apply the Land Use Compatibility Chart in Landslide Susceptibility Zones (Table S-4) when reviewing all discretionary and ministerial applications.

4. Fund and prepare a land use plan that is in conformance with the Land Use Compatibility Chart in Landslide Susceptibility Zones in Wrightwood and other designated high landslide hazard areas as they are identified.
5. Restrict avoidable alteration of the land that is likely to increase the hazard within areas of demonstrated or potential landslide hazard, including concentrations of water through drainage or septic systems, removal of vegetative cover, steepening of slopes, and undercutting the base of a slope.
6. Restrict grading to minimal amounts necessary to provide access and require grading permits to have an approved site plan that conforms to the recommendations of any required geologic investigation.

## **IMPACT ANALYSIS AND MITIGATION MEASURES**

### **METHODOLOGY**

An evaluation of the significance of potential impacts related to geology, soils and seismicity must consider both direct effects as well as indirect effects in the local or regional context. Potentially significant impacts would generally result if people or structures are exposed to risk of loss, injury or death from rupture of a known earthquake fault or seismic-related ground failure, or location on a geologic unit or soil that is unstable (including expansive soils), or if the project would result in substantial soil erosion or the loss of topsoil.

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## THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part on the CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on geology, soils, or seismicity if it would do any of the following:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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 active fault trace. Refer to Division of Mines and Geology Special Publication 42;
  - Strong seismic groundshaking or seismic-related ground failure, including liquefaction and lateral spreading; or
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse;
- 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.
- 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.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<p><i>Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</i></p> <ul style="list-style-type: none"><li><i>- 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 active fault trace?</i></li><li><i>- Strong seismic ground shaking?</i></li><li><i>- Seismic-related ground failure, including liquefaction?</i></li><li><i>- Landslides?</i></li></ul>
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**Impact 4.6-1**      **Implementation of the Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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; strong seismic groundshaking; seismic-related ground failure, including liquefaction; or landslides. This impact would be *less than significant*.**

The SkyPark site would not cause potential substantial adverse effects to people or structures, including the risk of loss, injury, or death as the site is not located on a known earthquake fault line. The Alquist-Priolo Earthquake Fault Zoning Map from the State of California Department of Conservation shows the project site outside of an earthquake fault zone.

The SkyPark site would not cause potential substantial adverse effects to people or structures, including the risk of loss, injury, or death due to strong seismic ground shaking. The site is located adjacent to SR-18 in the community of Skyforest, approximately 7 miles north of the San Andreas fault line. Since the San Andreas fault

line is considered tectonically active, if an earthquake occurred from the San Andreas fault or any other fault, strong seismic ground shaking may result in the project area. However, with adherence to current California Building Code standards, the proposed improvements will be constructed with materials and in a way to meet current safety standards. The improvements will not be particularly susceptible to collapse from strong seismic ground shaking, which could result in injury or death. With adherence to California Building Code standards for all improvements, impacts are reduced to a less than significant level.

Liquefaction occurs when loose, water saturated sediments lose strength and fail during strong ground shaking. It 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 San Bernardino Land Services Geologic Hazard map, the Project site is not susceptible to liquefaction.

A discussion of potential impacts from landslides is under Impact 4.6-3 below.

<i>Threshold:</i>	<i>Would the Project result in substantial soil erosion or the loss of topsoil?</i>
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**Impact 4.6-2            Implementation of the Project would not result in substantial soil erosion or the loss of topsoil. This impact would be *less than significant with mitigation incorporated.***

Implementation of the Project could result in soil erosion or the loss of topsoil during and after construction activities due to exposed soils. Construction activities, including minor grading and development of the campground is required to comply with the General Construction Permit, which would require preparation of a SWPPP to address potential erosion issues. With implementation of the BMPs outlined in the SWPPP construction activities will not result in substantial erosion or the loss of topsoil from the Project site and impacts are less than significant.

The creation and use of trails for mountain biking and hiking would result in soil disturbance, including potential soil erosion and loss of topsoil. As with vegetation loss, much soil disturbance occurs in the initial construction and use of trails. Soil can be eroded by wind, but generally, erosion is caused by flowing water. The concentrated

runoff picks up and carries soil particles downhill, eroding the trail surface. Water and sediment it carries will continue down the trail until a natural or constructed feature diverts it off the trail. Properly designed drainage features are designed to divert water from the trail at a speed sufficient to carry the sediment load where vegetation and organic litter can filter out sediments. Informal trails created by off-trail travel frequently have steep grades and fall-line alignments that quickly erode, particularly in the absence of trail maintenance.

When trails are located in areas of poor drainage or across highly organic soils that hold moisture, tread muddiness can become a persistent problem. Muddiness is most commonly associated with locations where water flows across or becomes trapped within flat or low-lying areas. Soil compaction, displacement, and erosion can exacerbate or create problems with muddiness by causing cupped treads that will collect water during rainfall or snowmelt. Post-construction soil displacement, erosion, and muddiness are impacts that can be avoided with sustained management. With implementation of mitigation measure MM GEO-1 potential impacts from erosion of hiking and mountain biking trails are reduced to less than significant levels.

**Mitigation Measure:**

**MM GEO-1**

Development and use of new hiking and mountain biking trails as well as use of existing trails shall implement the following avoidance, design, and maintenance measures:

- Discourage or prohibit off-trail travel through education (information given to guest before they use trails, include in park rules), signage on trails, and strategic placement of boulders, downed timber, split rail fence segments;
- Design trails with sustainable grades and avoid fall-line alignments;
- When possible, build trails in dry, cohesive soils that easily compact and contain a larger percentage of coarse

material. These soils better resist erosion by water, wind, or displacement by feet and tires;

- Minimize trail muddiness by avoiding flat terrain, wet soils, and drainage-bottom locations;
- Use grade reversals to remove water from trail treads. Grade reversals are permanent and sustainable. When they are designed into a trail's alignment they remain 100 percent effective and require minimal maintenance;
- If it is not possible to install proper drainage on a trail, consider rerouting trail sections that are most problematic, or possibly hardening the trail;
- In flatter areas, elevate and crown trails to prevent muddiness, or add a gravel/soil mixture in low spots;
- Integrating ramps where turns or change in direction are likely to occur on trails. The trails would be more vulnerable to erosion during turns because of decrease in speed and possible skidding, thus adding ramps would decrease erosion; and
- Temporarily close trails that are prone to muddiness during rainy or snowmelt seasons.

<i>Threshold:</i>	<i>Would the Project 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?</i>
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**Impact 4.5-3**      **The Project site is not 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse. This impact would be *less than significant*.**

The camping site installments are proposed to being located on relatively flat open surfaces. The occurrence of mass movement failures, such as landslides and rockfalls, within such areas is generally not considered common and no evidence of mass movement was observed during site visit.

According to the San Bernardino County Land Use Services Geologic Hazard Map, the southern portion of Skyforest (south of SR-18) is moderate to highly susceptible to landslides. This area includes the steep south facing slopes of the San Bernardino Mountains.

Although the proposed campsite would sit on land south of SR-18, it is relatively flat and is not enclosed by mountainous features. Therefore, it is unlikely landslides would occur onsite. The proposed septic tank and leach lines at the campground are located on the southeast side of the proposed campground. The leach line area is gently sloping, is well covered with local vegetation, and has slightly silty sand that is firm and unyielding. The proposed site for the septic system for the campground was evaluated by a geotechnical engineer and professional geologist and it is their opinion that the installation of the proposed septic system is not anticipated to adversely affect the stability of the area or have any negative effect on the surrounding environment. (*Engineer's Septic System Memo*, Appendix F)

A discussion of liquefaction is under Impact 4.6-1 above. Lateral spreading is the loss of resistance in granular saturated soils due to the phenomenon of liquefaction, which consequently causes large horizontal deformations on the ground during intense shaking. Since the Project site does not lie on liquefaction hazard overlay zone, there would be no anticipated adverse impact regarding lateral spreading.

Subsidence can occur gradually or abruptly. It is the sinking of earth in a particular area as a result of natural or man-made causes. Subsidence is capable of damaging roads, buildings, bridges, and sewer systems by altering the slopes of land. There are two types of subsidence: endogenic and exogenic subsidence. Typically, endogenic subsidence is caused by earthquakes as a result of tectonic plate movement. Exogenic subsidence is caused by human activities such as mining, oil extraction, groundwater pumping, etc. As

outlined above, the site is not located on a known earthquake fault line and is not at a high risk of strong seismic ground shaking. Although the Project does include groundwater pumping, as outlined in more detail in Section 4.17 *Utilities*, the Project is not anticipated to adversely affect the groundwater supply. Therefore, potential impacts associated with subsidence are less than significant.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.5-4**      **Implementation of the Project would not be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994) that would create a substantial risk to life or property. This impact would be *less than significant*.**

The onsite soils consist mainly of sandy loams to gravelly-coarse sandy grain soils that are soft to very firm, and well to poorly drained soils. The existing Santa's Village attraction buildings are located where predominantly Morical-River soils are present. Morical-River soils are well drained and therefore have a low expansion potential. The proposed restroom building on the campsite would not have an expansive soil foundation. Therefore, impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.5-5**      **Implementation of the Project would not 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. This impact would be *less than significant*.**

The implementation of the proposed Project would involve the use of the existing septic system north of SR-18. The existing septic system currently in use has no indications of soils incapable of adequately supporting the septic system.

Additionally, a new septic system would be installed in the campground site (south of SR-18). A percolation test is required prior to installation to ensure the porosity of the soil is adequate to serve as a drain field. Accordingly, Ray W. McDonald & Assoc. Inc. prepared a percolation test and system design on January 2015. Results indicated that the allocated site has sufficient area and suitable soils to handle the proposed system design and the liquid waste from the restroom facility (consisting of 8 laundry units, 4 urinal units, 28 water closet units, and 8 wash basin units) without creating a nuisance. In addition, the proposed site for the septic system for the campground was evaluated by a geotechnical engineer and professional geologist and it is their opinion that the installation of the proposed septic system is not anticipated to adversely affect the stability of the area or have any negative effect on the surrounding environment. Therefore, impacts would be less than significant.

## **CUMULATIVE IMPACTS**

The rehabilitation of the existing Santa's Village with the new campground development on the southern portion of the Project site would not have significant cumulative impacts on the Project site or the surrounding area. Each development project must comply with all applicable state laws, including the CBC, and each development project must address site-specific geology, soils, and seismicity issues to County standards through implementation of recommended measures outlined in site-specific evaluations. Therefore, site-specific geology, soils, and seismicity issues are addressed through compliance with existing requirements for individual development projects, and do not contribute to a cumulative impact regionally.

**GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE**

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**4.7 GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE**

This section evaluates greenhouse gas (GHG) emissions associated with the proposed Project and analyzes Project compliance with applicable regulations. The Project's consistency with applicable plans, policies, and regulations, as well as the introduction of new sources of GHGs, are analyzed in this section. GHG technical data is included as see Appendix C, *Air Quality and Greenhouse Gas Data*.

**ENVIRONMENTAL SETTING**

The Project site lies within the northeastern portion of the South Coast Air Basin (Basin). The Basin is a 6,600-square mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County.

The Basin's terrain and geographical location (i.e., a coastal plain with connecting broad valleys and low hills) determine its distinctive climate.

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. The climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. 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 because climate change is influenced by world-wide emissions and their global effects. However,

the study area is also limited by the California Environmental Quality Act (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). This analysis also cites and relies on local air quality management district recommendations from the South Coast Air Quality Management District (SCAQMD) for CEQA assessment of GHG emissions.

## **GREENHOUSE GAS EMISSIONS**

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."<sup>1</sup> The greenhouse effect traps heat in the troposphere through a threefold 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 "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. 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

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<sup>1</sup> The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

re-radiate long wave radiation. GHGs normally associated with the proposed Project include the following:<sup>2</sup>

- 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, this is not believed to 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 ( $CO_2$ ).  $CO_2$  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 8.8 percent between 1990 and 2013.<sup>3</sup>  $CO_2$  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 ( $CH_4$ ).  $CH_4$  is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of  $CH_4$  are landfills, natural gas systems, and enteric fermentation.  $CH_4$  is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The Global Warming Potential of  $CH_4$  is 25.
- Nitrous Oxide ( $N_2O$ ).  $N_2O$  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

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<sup>2</sup> 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. Climate Change (Intergovernmental Panel on Climate Change, *Climate Change, The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*, 1996).

<sup>3</sup> U.S. Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2013*, April 15, 2015.

fossil fuel, adipic acid production, and nitric acid production. The Global Warming Potential of N<sub>2</sub>O 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 growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The Global Warming Potential of HFCs range from 140 for HFC-152a to 11,700 for HFC-23.<sup>4</sup>
- Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. PFCs are potent GHGs with a Global Warming Potential several thousand times that of CO<sub>2</sub>, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years). The Global Warming Potential of PFCs range from 6,500 to 9,200.<sup>5</sup>
- Sulfur hexafluoride (SF<sub>6</sub>). SF<sub>6</sub> is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF<sub>6</sub> is the most potent GHG that has been evaluated by the IPCC with a Global Warming Potential of 23,900. 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).<sup>6</sup>

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<sub>3</sub>) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

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<sup>4</sup> U.S. Environmental Protection Agency, *Overview of Greenhouse Gas Emissions*, <http://epa.gov/climatechange/ghgemissions/gases/fgases.html>, accessed March 22, 2016.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

- *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 Global Warming Potentials of HCFCs range from 77 for HCFC-123 to 2,310 for HCFC-142b.<sup>7</sup>
- *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 CO<sub>2</sub>.<sup>8</sup>
- *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<sub>3</sub> 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 Global Warming Potentials ranging from 4,750 for CFC 11 to 14,420 for CFC 13.<sup>9</sup>

## REGULATORY FRAMEWORK

### 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.

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<sup>7</sup> U.S. Environmental Protection Agency, *Class II Ozone-depleting Substances*, <https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>, accessed March 22, 2016.

<sup>8</sup> U.S. Environmental Protection Agency, *Class I Ozone-depleting Substances*, <https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>, accessed March 22, 2016.

<sup>9</sup> Ibid.

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.

Currently, the EPA is moving forward with two key climate change regulatory proposals, one to establish a mandatory GHG reporting system. Under the Federal Clean Air Act (FCAA), the EPA is now obligated to issue rules regulating global warming pollution from all major sources. In April 2009, the EPA concluded that GHGs are a danger to public health and welfare, establishing the basis for GHG regulation. However, as of the date of this study there are no Federal regulations or policies regarding GHG emissions applicable to the proposed Project.

## 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 B-30-15. Executive Order B-30-15 added the interim target to reduce statewide GHG emissions 40 percent below 1990 levels by 2030, and requires CARB to update its current AB 32 Scoping Plan to identify measures to meet the 2030 target.

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.

CARB Scoping Plan. On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California will implement to reduce CO<sub>2</sub>eq<sup>10</sup> emissions by 174 million MT, or approximately 30 percent, from the State's projected 2020 emissions level of 596 million

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<sup>10</sup> Carbon Dioxide Equivalent (CO<sub>2</sub>eq) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

MT CO<sub>2</sub>eq under a business as usual (BAU)<sup>11</sup> scenario. This is a reduction of 42 million MT CO<sub>2</sub>eq, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be 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. At the time 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.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal established in Executive Order S-3-05, though not yet adopted as state law, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The Scoping Plan update does not establish or propose any specific post-2020 goals, but identifies such goals adopted by other governments or recommended by various scientific and policy organizations.

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<sup>11</sup> "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions. See <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

## LOCAL

### SAN BERNARDINO COUNTY

#### *COUNTY OF SAN BERNARDINO GENERAL PLAN*

The *County of San Bernardino 2007 General Plan (April 2007)* Conservation Element and Land Use Element includes the following goals and policies related to reducing GHGs.

#### Conservation Element

##### **Policies:**

- CO 4.5:** Reduce emissions through reduced energy consumption.
- CO 4.12** Provide incentives to promote siting or use of clean air technologies (e.g., fuel cell technologies, renewable energy sources, UV coatings, and hydrogen fuel).
- CO 4.13:** Reduce Greenhouse Gas (GHG) emissions within the County boundaries.
- CO 8:** The County will minimize energy consumption and promote safe energy extraction, uses and systems to benefit local regional and global environmental goals.
- CO 8.1:** Maximize the beneficial effects and minimize the adverse effects associated with the siting of major energy facilities. The County will site energy facilities equitably in order to minimize net energy use and consumption of natural resources, and avoid inappropriately burdening certain communities. Energy planning should conserve energy and reduce peak load demands, reduce natural resource consumption, minimize environmental impacts, and treat local communities fairly in providing energy efficiency programs and locating energy facilities.
- CO 8.2:** Conserve energy and minimize peak load demands through the efficient production, distribution and use of energy.

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*COUNTY OF SAN BERNARDINO GREENHOUSE GAS EMISSIONS REDUCTION PLAN*

In September 2011, the County of San Bernardino adopted the *San Bernardino GHG Reduction Plan* (GHG Plan) based on the premise that the County and the community it represents are uniquely capable of addressing emissions associated with sources under the County's jurisdiction and that the County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to reduce emissions in an efficient and cost-effective manner. This GHG Plan presents a comprehensive set of actions to reduce the County's internal and external GHG emissions to 15 percent below current levels by 2020, consistent with the AB 32 Scoping Plan. The GHG Plan identifies GHG emissions reduction goals, objectives, and strategies categorized in six sectors including Building Energy (addressing energy efficiency and alternative energy in buildings and renewable energy generation facilities), Transportation and Land Use, Solid Waste/Landfills, Stationary Sources, Agriculture and Resource Conservation, and Water Conservation. For each sector, reduction strategies have been developed to achieve the County's 2020 emissions reduction target.

*MODEL WATER EFFICIENT LANDSCAPE ORDINANCE*

On February 8, 2011, the Board of Supervisors adopted a comprehensive landscaping ordinance (Development Code Sections 83.10.010 et seq.) whose provisions meet or exceed the water conservation requirements development by the Department of Water Resources pursuant to Government Code Sections 64491 et seq. The County landscaping ordinance implements standards that manage outdoor water use through various conservation measures which include using a water budget and low impact development design strategies such as impervious surface reduction, pollution prevention measures to reduce the introduction of pollutants to the environment, and other integrated practices to reduce and cleanse runoff.

*WATER CONSERVATION PROGRAMS*

The County of San Bernardino adopted a water conservation program on June 23, 2015, which establishes mandatory water use restrictions, regulations, and administrative fines, and/or penalties to be implemented during declared water conservation stages. The purpose of the water conservation program is to assure the highest beneficial use of County Service Area and Zone water supplies and to provide sufficient water supplies

to meet the basic needs of human consumption, sanitation, and fire protection within the County Service Areas and Zones. As the water conservation program complies with the statewide drought regulations, the County of San Bernardino also observes watering schedule and end user restrictions to reduce and conserve use of irrigation and potable water.

Additionally, the State Water Resources Control Board (SWRCB) has allocated reduction percentages for each district to achieve a 25 percent reduction in California's overall water usage by 2016. Reduction percentages were determined based on the total residential water usage for each area in 2013 and separated by urban and rural areas.<sup>12</sup>

## **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 County of San Bernardino has not yet established specific quantitative significance thresholds for GHG emissions for development projects.

The SCAQMD has formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting

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<sup>12</sup> County of San Bernardino, Water Scheduling and Ordinance Restrictions,  
<http://www.specialdistricts.org/index.aspx?page=548>, accessed March 22, 2016.

(Meeting No. 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.<sup>13</sup>

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD is proposing a screening threshold of 3,000 MTCO<sub>2</sub>eq per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, the Project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. Under the Tier 4 second option, the Project would be excluded if it had early compliance with AB 32 through early implementation of CARB's Scoping Plan measures. Under the Tier 4 third option, Project would be excluded if was below an efficiency-based threshold of 4.8 MTCO<sub>2</sub>eq per service population (SP) per year.<sup>14</sup> Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

For the proposed Project, the 3,000 MTCO<sub>2</sub>eq per year non-industrial screening threshold is used as the significance threshold, in addition to the qualitative thresholds of significance set forth below from section VII of Appendix G to the CEQA Guidelines.

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<sup>13</sup> The most recent SCAQMD GHG CEQA Significance Threshold Working Group meeting was held on September 2010.

<sup>14</sup> The project-level efficiency-based threshold of 4.8 MTCO<sub>2</sub>eq per SP per year is relative to the 2020 target date. The SCAQMD has also proposed efficiency-based thresholds relative to the 2035 target date to be consistent with the GHG reduction target date of SB 375. GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. Applying this 40 percent reduction to the 2020 targets results in an efficiency threshold for plans of 4.1 MTCO<sub>2</sub>eq per SP per year and an efficiency threshold at the project level of 3.0 MTCO<sub>2</sub>eq/year.

## CEQA SIGNIFICANCE CRITERIA

The issues presented in the Initial Study Environmental Checklist (State 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;
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</i>
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**Impact 4.6-1**      **Implementation of the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be *less than significant*.**

The proposed Project would result in direct and indirect emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct Project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Project related GHG emissions were quantified with the California Emissions Estimator Model (CalEEMod). CalEEMod relies

upon vehicle trip rates and Project specific land use data to calculate emissions. The Project would result in approximately 1,408 daily trips per the Project's *Traffic Impact Analysis* (prepared by Gibson Transportation Consulting, May 2016); refer to Appendix I). For GHG modeling purposes, the weekend/peak day total of 2,600 daily trips was conservatively modeled for weekends, and the summer weekday total of 562 trips was modeled for the weekday. These values represent the most conservative number of daily trips provided in the *Traffic Impact Analysis*, and reflect a worst-case scenario. Table 4.7-1, *Estimated Greenhouse Gas Emissions*, presents the estimated CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> emissions of the proposed Project. CalEEMod outputs with the GHG emissions data are contained within Appendix C.

**Table 4.7-1: Estimated Greenhouse Gas Emissions**

Source	CO <sub>2</sub>	CH <sub>4</sub>		N <sub>2</sub> O		Total Metric Tons of CO <sub>2</sub> eq
	Metric Tons/yr <sup>1</sup>	Metric Tons/yr <sup>1</sup>	Metric Tons of CO <sub>2</sub> eq <sup>2</sup>	Metric Tons/yr <sup>1</sup>	Metric Tons of CO <sub>2</sub> eq <sup>2</sup>	
<b>Direct Emissions</b>						
• Construction (amortized over 30 years)	13.77	0.00	0.00	0.00	0.00	13.77
• Area Source	0.00	0.00	0.00	0.00	0.00	0.00
• Mobile Source	2,646.33	0.09	2.30	0.00	0.00	2,648.72
<b>Total Direct Emissions<sup>3</sup></b>	<b>2,660.10</b>	<b>0.09</b>	<b>2.30</b>	<b>0.00</b>	<b>0.00</b>	<b>2,662.49</b>
<b>Indirect Emissions</b>						
• Energy	164.75	0.01	0.25	0.00	0.00	165.01
• Water Demand	58.11	0.06	1.50	0.00	0.00	59.67
• Solid Waste Generation	5.20	0.31	7.80	0.00	0.00	13.31
<b>Total Indirect Emissions<sup>3</sup></b>	<b>228.06</b>	<b>0.38</b>	<b>9.55</b>	<b>0</b>	<b>0</b>	<b>237.99</b>
<b>Total Project-Related Emissions<sup>3</sup></b>	<b>2,900.48 MTCO<sub>2</sub>eq/yr</b>					
<b>GHG Emissions Exceed Threshold?</b>	<b>No</b>					
Notes:						
1. Emissions calculated using CalEEMod.						
2. CO <sub>2</sub> Equivalent values calculated using the EPA Website, <i>Greenhouse Gas Equivalencies Calculator</i> , <a href="http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator">http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator</a> , accessed March 22, 2016.						
3. Totals may be slightly off due to rounding.						
Refer to Appendix C, <i>Air Quality and Greenhouse Gas Emissions Data</i> , for detailed model input/output data.						

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*DIRECT PROPOSED PROJECT-RELATED SOURCES OF GREENHOUSE GASES*

- Construction Emissions. 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.<sup>15</sup> As depicted in Table 4.7-1, the proposed Project would result in 13.77 MTCO<sub>2</sub>eq/year (amortized over 30 years which is the expected lifecycle of the Project), which represents a total of approximately 413.10 MTCO<sub>2</sub>eq from construction activities.
- Area Source. Area source emissions were calculated using CalEEMod and project-specific land use data. As noted in Table 4.7-1, the proposed Project would not generate area source GHG emissions.
- Mobile Source. CalEEMod relies upon trip data within the Project *Traffic Impact Analysis* and Project specific land use data to calculate mobile source emissions. The proposed Project would directly result in approximately 2,648.72 MTCO<sub>2</sub>eq/year of mobile source-generated GHG emissions; refer to Table 4.7-1.

*INDIRECT PROPOSED PROJECT-RELATED SOURCES OF GREENHOUSE GASES*

- Energy Consumption. Energy consumption emissions were calculated using CalEEMod and Project-specific land use data. Electricity would be provided to the Project site via Southern California Edison (SCE). The proposed Project would indirectly result approximately 165.01 MTCO<sub>2</sub>eq/year due to energy consumption; refer to Table 4.7-1.
- Solid Waste. Solid waste associated with operations of the proposed Project would result in an approximately 13.31 MTCO<sub>2</sub>eq/year; refer to Table 4.7-1.
- Water Demand. Emissions from indirect energy impacts due to water supply would result in approximately 59.67 MTCO<sub>2</sub>eq/year; refer to Table 4.7-1.

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<sup>15</sup> 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).

*PROJECT DESIGN FEATURES*

It is noted that the proposed Project's design features/operations would reduce the GHG emissions calculated in CalEEMod, as shown in Table 4.7-1. For instance, most of the amusement park activities would not require the use of energy, machinery, etc. to operate (e.g., the zip line park, fishing, hiking, climbing, pedal powered monorail, recreational games, craft projects, etc.). In addition, all buildings at the Project site will be upgraded to create higher energy efficiency, including the replacement of original single-paned windows to double-glazed windows, upgraded roofs with ridged foam insulation within the subroof, installation of skylights to reduce the need for interior lighting, and all light fixtures will be exchanged to high efficiency light-emitting diode (LED) lighting. The Project would also potentially include solar panels to further offset energy demands. However, credit from solar generation has not been applied as the details of this feature are not yet known.

*TOTAL PROPOSED PROJECT-RELATED SOURCES OF GREENHOUSE GASES*

As depicted in Table 4.7-1, the total amount of unmitigated Project-related GHG emissions from direct and indirect sources combined would total 2,900.48 MTCO<sub>2</sub>eq/year. As such, the Project would not exceed the 3,000 MTCO<sub>2</sub>eq/ year non-industrial screening GHG threshold. Impacts in this regard would be less than significant.

<i>Threshold:</i>	<i>Would the Project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</i>
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**Impact 4.7-2      Implementation of the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be less than significant.**

The County of San Bernardino GHG Reduction Plan (GHG Plan) was adopted on December 6, 2011 and became effective on January 6, 2012. The GHG Plan establishes a GHG emissions reduction target for the year 2020 that is 15 percent below year 2007 emission levels. The GHG Plan is consistent with AB 32 and sets the County on a path to achieve a more substantial long-term reduction in the post-2020 period. Achieving this

level of emissions would ensure that the contribution to greenhouse gas emissions from activities covered by the GHG Plan would not be cumulatively considerable. GHG reducing performance standards were developed by the County to improve the energy efficiency, water conservation, vehicle trip reduction potential, and other GHG reducing impacts from all new development approved within the unincorporated portions of the County. Performance standards establish the minimum level of compliance that development must meet to assist in meeting the 2020 GHG reduction target identified in the County GHG Emissions Reduction Plan. Performance standards apply to all projects and will be included as Conditions of Approval for development projects.

Implementation of the County's GHG Plan is achieved through the Development Review Process by applying appropriate reduction requirements to projects, which reduce GHG emissions. All new development is required to quantify a project's GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance. A review standard of 3,000 metric tons of carbon dioxide equivalent per year (MTCO<sub>2</sub>eq/year<sup>16</sup>) is used to identify and mitigate project emissions.

For projects exceeding 3,000 MTCO<sub>2</sub>eq/year of GHG emissions, the developer may use the Screening Tables in the GHG Plan as a tool to assist with calculating GHG reduction measures and the determination of a significance finding. Projects that garner 100 or more points on the Screening Tables do not require quantification of project-specific GHG emissions. The point system was devised to ensure project compliance with the reduction measures in the GHG Plan such that the GHG emissions from new development, when considered together with those from existing development, would allow the County to meet its year 2020 target and support longer-term reductions in GHG emissions beyond year 2020.

Projects exceeding 3,000 MTCO<sub>2</sub>eq/year of GHG emissions that do not use the Screening Tables are required to quantify the project specific GHG emissions or otherwise demonstrate that project specific GHG emissions achieve the equivalent level of GHG emissions efficiency as a 100-point project. Consistent with the CEQA Guidelines, such

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<sup>16</sup> Carbon Dioxide Equivalent (CO<sub>2</sub>eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

projects are consistent with the GHG Plan and, therefore, would be determined to have a less than significant individual and cumulative impact for GHG emissions.

As shown above in Table 4.7-1, the proposed Project's GHG emissions would be approximately 2,900.48 MTCO<sub>2</sub>eq/year. It is noted that the Project's design features/operations would further reduce the GHG emissions shown in Table 4.7-1, including upgraded buildings for increased energy efficiency, man-powered outdoor activities (zip line, pedal powered monorail, climbing, craft projects, etc.), and installation of on-site solar panels. As such, the Project's GHG emissions would not exceed the 3,000 MTCO<sub>2</sub>eq/year screening threshold set forth in the County's GHG Plan.

The following performance standards used for Commercial and Industrial Projects will also be required as Conditions of Approval for this Project:

1. GHG – Operational Standards. The developer shall implement the following as greenhouse gas (GHG) mitigation during the operation of the approved project:
  - a) Waste Stream Reduction. The developer shall provide to all tenants and project employees County-approved informational materials about methods and need to reduce the solid waste stream and listing available recycling services.
  - b) Vehicle Trip Reduction. The developer shall provide to all tenants and project employees County-approved informational materials about the need to reduce vehicle mile trips and the program elements this project is implementing. Such elements may include: participation in establishing ride-sharing programs, creating a new ride-share employee vanpool, designating preferred parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles with benches in waiting areas, and/or providing a web site or message board for coordinating rides.
  - c) Provide Educational Material. The developer shall provide to all tenants and staff education materials and other publicity about reducing waste and available recycling services. The education and publicity materials/program shall be submitted to County Planning for review and approval. The developer shall also provide to all tenants and require that the tenants shall display in their stores current transit route information for the project area in a visible and

- convenient location for employees and customers. The specific transit routes displayed shall include Omni Trans Route 8, San Bernardino-Mentone-Yucaipa.
- d) Landscape Equipment. The developer shall require in the landscape maintenance contract and/or in onsite procedures that a minimum of 20% of the landscape maintenance equipment shall be electric-powered.
2. GHG – Construction Standards. The developer shall submit for review and obtain approval from County Planning of a signed letter agreeing to include as a condition of all construction contracts/subcontracts requirements to reduce GHG emissions and submitting documentation of compliance. The developer/construction contractors shall do the following:
- a) Implement the approved Coating Restriction Plans.
  - b) Select construction equipment based on low GHG emissions factors and high-energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.
  - c) Grading contractor shall implement the following when possible:
    - 1) Training operators to use equipment more efficiently.
    - 2) Identifying the proper size equipment for a task can also provide fuel savings and associated reductions in GHG emissions
    - 3) Replacing older, less fuel-efficient equipment with newer models
    - 4) Use GPS for grading to maximize efficiency
  - d) Grading plans shall include the following statements:
    - “All construction equipment engines shall be properly tuned and maintained in accordance with the manufacturers specifications prior to arriving on site and throughout construction duration.”
    - “All construction equipment (including electric generators) shall be shut off by work crews when not in use and shall not idle for more than 5 minutes.”

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- e) Schedule construction traffic ingress/egress to not interfere with peak-hour traffic and to minimize traffic obstructions. Queuing of trucks and on and off-site shall be firmly discouraged and not scheduled. A flagperson shall be retained to maintain efficient traffic flow and safety adjacent to existing roadways.
- f) Recycle and reuse construction and demolition waste (e.g. soil, vegetation, concrete, lumber, metal, and cardboard) per County Solid Waste procedures.
- g) The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew and educate all construction workers about the required waste reduction and availability of recycling services.
3. GHG – Design Standards. The developer shall submit for review and obtain approval from County Planning that the following measures have been incorporated into the design of the project. These are intended to reduce potential project greenhouse gas (GHGs) emissions. Proper installation of the approved design features and equipment shall be confirmed by County Building and Safety prior to final inspection of each structure.
- a) Title 24 + 5%. The developer shall document that the design of the proposed structures exceeds the current Title 24 energy-efficiency requirements by a minimum of five percent. County Planning shall coordinate this review with the County Building and Safety. Any combination of the following design features may be used to fulfill this mitigation, provided that the total increase in efficiency meets or exceeds the cumulative goal (105%+ of Title 24) for the entire project (Title 24, Part 6 of the California Code of Regulations; Energy Efficiency Standards for Residential and Non Residential Buildings, as amended October 1, 2005; Cool Roof Coatings performance standards as amended September 11, 2006):
- Incorporate dual paned or other energy efficient windows,
  - Incorporate energy efficient space heating and cooling equipment,

- Incorporate energy efficient light fixtures, photocells, and motion detectors,
- Incorporate energy efficient appliance,
- Incorporate energy efficient domestic hot water systems,
- Incorporate solar panels in to the electrical system,
- Incorporate cool roofs/light colored roofing,
- Incorporate other measures that will increase energy efficiency,
- Increase insulation to reduce heat transfer and thermal bridging,
- Limit air leakage throughout the structure and within the heating and cooling distribution system to minimize energy consumption.

b) Plumbing. All plumbing shall incorporate the following:

- All showerheads, lavatory faucets, and sink faucets shall comply with the California Energy Conservation flow rate standards.
- Low flush toilets shall be installed where applicable as specified in California State Health and Safety Code Section 17921.3.
- All hot water piping and storage tanks shall be insulated. Energy efficient boilers shall be used.

c) Lighting. Lighting design for building interiors shall support the use of:

- Compact fluorescent light bulbs or equivalently efficient lighting.
- Natural day lighting through orientation and the use of reflected light.
- Skylight/roof window systems.
- Light colored building materials and finishes shall be used to control lighting to maximize the energy efficiency of lighting requirements at various times of the day.
- Provide a minimum of 2.5 percent of the project's electricity needs by on-site solar panels.

- d) Building Design. Building design and construction shall incorporate the following elements:
- Orient building locations to best utilize natural cooling/heating with respect to the sun and prevailing winds/natural convection to take advantage of shade, day lighting and natural cooling opportunities.
  - Utilize natural, low maintenance building materials that do not require finishes and regular maintenance.
  - Roofing materials shall have a solar reflectance index of 78 or greater.
  - All supply duct work shall be sealed and leak-tested. Oval or round ducts shall be used for at least 75 percent of the supply duct work, excluding risers.
  - Energy Star or equivalent appliances shall be installed.
  - A building automation system including outdoor temperature/humidity sensors will control public area heating, vent, and air conditioning units.
- e) Landscaping. The developer shall submit for review and obtain approval from County Planning of landscape and irrigation plans that are designed to include drought tolerant and smog tolerant trees, shrubs, and groundcover to ensure the long-term viability and to conserve water and energy. The landscape plans shall include shade trees around main buildings, particularly along southern and western elevations, where practical.
- f) Irrigation. The develop shall submit irrigation plans that are designed, so that all common area irrigation areas shall be capable of being operated by a computerized irrigation system, which includes either an on-site weather station, ET gauge or ET-based controller capable of reading current weather data and making automatic adjustments to independent run times for each irrigation valve based on changes in temperature, solar radiation, relative humidity, rain and wind. In addition, the computerized irrigation system shall be equipped with flow sensing capabilities, thus automatically shutting down the irrigation system in the event of a mainline break or broken head. These

- features will assist in conserving water, eliminating the potential for slope failure due to mainline breaks and eliminating over-watering and flooding due to pipe and/or head breaks.
- g) Recycling. Exterior storage areas for recyclables and green waste shall be provided. Where recycling pickup is available, adequate recycling containers shall be located in public areas. Construction and operation waste shall be collected for reuse and recycling.
  - h) Transportation Demand Management (TDM) Program. The project shall include adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. Preferred carpool/vanpool spaces shall be provided and, if available, mass transit facilities shall be provided (e.g. bus stop bench/shelter). The developer shall demonstrate that the TDM program has been instituted for the project or that the buildings will join an existing program located within a quarter mile radius from the project site that provides a cumulative 20% reduction in unmitigated employee commute trips. The TDM Program shall publish ride-sharing information for ride-sharing vehicles and provide a website or message board for coordinating rides. The Program shall ensure that appropriate bus route information is placed in each building.
4. GHG – Installation/Implementation Standards. The developer shall submit for review and obtain approval from County Planning of evidence that all applicable GHG performance standards have been installed, implemented properly and that specified performance objectives are being met to the satisfaction of County Planning and County Building and Safety. These installations/procedures include the following:
- a) Design features and/or equipment that cumulatively increases the overall compliance of the project to exceed Title 24 minimum standards by five percent.
  - b) All interior building lighting shall support the use of fluorescent light bulbs or equivalent energy-efficient lighting.

- c) Installation of both the identified mandatory and optional design features or equipment that have been constructed and incorporated into the facility/structure.

Implementation of the applicable performance standards / Conditions of Approval will further reduce the Project's GHG emissions. Therefore, the Project would comply with the emissions reduction targets in the County's GHG Plan. A less than significant impact would occur in this regard.

## CUMULATIVE IMPACTS

**Impact 4.7-3          Greenhouse gas emissions generated by the proposed Project, combined with other related cumulative projects, could have a significant impact on global climate change.**

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.<sup>17</sup> GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.<sup>18</sup> The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change, as Project-related GHG emission would be below the 3,000 MTCO<sub>2</sub>eq/year threshold set forth by the County's GHG Plan. 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. Therefore, the Project's cumulative GHG impacts would be less than significant.

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<sup>17</sup> 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.

<sup>18</sup> Ibid.

**Impact 4.7-4            The proposed Project, combined with other related cumulative projects, would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

The County's GHG Plan is used to mitigate and avoid GHG emissions associated with community activities in San Bernardino County, and to confront global climate change and make the County a cleaner, greener, more sustainable place to live. Cumulative projects would be required to be consistent, as applicable, with these plans to avoid cumulatively considerable impacts. The proposed Project would not generate GHG emissions that would exceed the County's 3,000 MTCO<sub>2</sub>eq/year threshold. In addition, the Project would include design features that would further reduce GHG emissions. Therefore, the proposed Project would not result in a cumulatively considerable impact with regard to a conflict with the County's GHG Plan, and the State's GHG reduction goals established by AB 32. There are no other applicable plans, policies, or regulations that have been adopted by the County or other regulating agency for the purpose of reducing the emissions of GHG. A less than significant impact would occur in this regard.

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HAZARDS AND HAZARDOUS MATERIALS

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**4.8 HAZARDS AND HAZARDOUS MATERIALS**

This section describes the environmental and regulatory setting and potential environmental impacts related to hazards and hazardous materials, as they pertain to implementation of the proposed Project. This section also describes existing conditions on the site and regulations that relate to hazardous materials and fire hazards. The impact analysis focuses on identifying and evaluating the potential for implementation of the project to result in significant fire hazard. The unique characteristics of the mountain environment and the wildland fires that have affected the mountain areas are taken into account in the following analysis. Information in this section is based primarily on the *California Cooperative Forest Management Plan* for the Project (Appendix B), the *Department of Toxic Substance Control EnviroStor Database*, the *SkyPark at Santa's Village Emergency Evacuation Plan*, the *Santa's Village Commercial Recycling Program*, the *San Bernardino County General Plan* and the *Lake Arrowhead Community Plan*.

**ENVIRONMENTAL SETTING**

**SITE HISTORY**

According to the California Cooperative Forest Management Plan (CCFMP) prepared the Project site, "the entire property was burned over in 1919 and the portion south of SR-18 was re-burned in 1956." The 2003 "Old Fire" also burned the area south of SR-18 and it appeared that the fire traveled through the forested areas north of SR-18. However, there are clear indications that portions of the property on the north side did not burn as hot as the south side as very little scorching is evident on residual trees. Areas south of the highway are still covered with brush and burned trees from the Old Fire.

According to the EnviroStor database archive for the Department of Toxic Substance Control (DTSC), the proposed Project sites are not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

## SITE DESCRIPTION

A combination of climate, topography, vegetation, pathogen/insect infestation, human occupancy, and development patterns can create high fire hazard risks throughout the County, especially in the wildland-urban boundary located in mountainous areas as applies to the project site. Wild-land urban interface areas are defined as areas where the wildlands meet urban development. Under the San Bernardino County General Plan, three types of interface are recognized: mixed, occluded, and classic interface. The Lake Arrowhead Community Plan area and the project site are best classified as mixed interface, which is defined as an area where isolated homes are surrounded by large strips of land.

Wildland fire hazards can be severe in San Bernardino County due to its Mediterranean climate. This climate is characterized by hot, dry summers followed by wet, moderate winters. Prolonged dry periods from June to December leads to hazardous fire conditions until the winter rains start. Furthermore, climate conditions over the summer are more extreme (hotter and drier for prolonged periods) during a drought season. In addition, little rainfall is expected during a drought winter season. Thus, making hazardous fire conditions more likely to occur. Dry summer conditions are exasperated by dry and gusty Santa Ana winds. When wind velocities and temperatures in hillside areas are high with relatively low humidity, fire conditions also become severe, and fires are often hard to extinguish. High winds increase fire conditions by supplying fresh oxygen, fanning, and spreading flames, increasing temperatures, and dehydrating both air and available fuels. The unstable and irregular Santa Ana wind conditions also obstruct the firefighters on the ground by causing unpredictable fire fronts. A lot of disastrous fires in California have been initiated by the onset of Santa Ana winds during extreme fire conditions.

Topography in mountain areas are characterized by canyons, ridges, and saddles that create a high fire hazard, because these features reflect and transmit flames. The heat and winds also pre heat the vegetation on the upper slopes. Accordingly, foothills and mountain areas also have a higher fire risk than flatter areas because fires run uphill much faster than across level ground. Fires on steep slopes also make it less accessible for firefighters and their equipment. The project site has an approximate 15 – 30%

northeastern slope on the north side of SR-18, and an approximate 50 – 75% slope on the south side of SR-18 behind the mountain ridgeline. The proposed campgrounds that would be located on the southern side of SR-18 are relatively flat with little vegetation and trees surrounding the area.

Furthermore, dense chaparral plant communities that include scrubs, which emit volatile oil when heated, are often found in high fire risk areas. On the other hand, widely spaced chaparral plants and irrigated landscaping are somewhat less of a fire hazard. Brush species have captured the southern portion of the property and would require repeated control. Regular brush removal maintenance in southern area of the project site would be necessary in order to minimize fire hazard.

Starting in 2002, the San Bernardino Mountain areas, including the Santa's Village property, experienced significant tree mortality due to an extended drought and a subsequent bark beetle population outbreak. In many areas of the Lake Arrowhead area, approximately 70% mortality of pines could be found. Current bark beetle populations have returned to normal and the conifers in the area are better able to defend themselves. However, California's current drought condition has worsened and that may lead to an increased bark beetle population during the next couple of years unless substantial precipitation is received. Although an aggressive program has initiated the removal of affected trees, a number of diseased and dead or dying trees still remain, which contribute to the high fire risk in the area.

The Mountain Area Safety Task Force (MAST) is a coalition of local, state, and federal government agencies, private companies, and volunteer organizations in San Bernardino and Riverside counties that work together to prevent and reduce the consequence of disastrous wildfires. MAST promotes public safety to the communities by providing information about fire prevention and emergency evacuation. As identified by MAST the closest evacuation route to the project site is SR-18 (*San Bernardino County General Plan*).

The San Bernardino County Fire Protection District (SBCFPD) provides fire protection and medical services to several mountain communities, including the Project site and its vicinity. The nearest fire station to the proposed Project site is San Bernardino County

Fire Station 91, located approximately 2 miles northwest to the site. Also refer to Section 4.14 Public Services and Exhibit 4.14-1.

As a result of the Western Pine Bark Beetle epidemic and the current drought conditions affecting the project site and in surrounding San Bernardino National Forest areas, the property owner has partnered with the National Resources Conservation Service (NRCS) to prepare and implement a California Cooperative Forest Management Plan (CCFMP) for the project site. The plan objective is to increase the forest's defense against fire, as well as maintain a healthy forest for recreational purposes by managing areas with overgrown chaparral and shade tolerant trees. Also creating sheltered fuel breaks along roads and near structures for future fire prevention or spread. Thus, the CCFMP is a key component in reducing the rate of spread and intensity of potential wildfires by removing, thinning, or pruning flammable vegetation to obtain a vertical and horizontal separation of fuels.

## **REGULATORY FRAMEWORK**

### **STATE**

#### *PUBLIC RESOURCE CODE 4291*

Public Resources Code 4291 requires property owners in mountainous and forest environments to: (1) Maintain defensible space no greater than 100 feet from each side of the structure, but not beyond the property line unless allowed by state law, local ordinance, or regulation. Defensible space is a property's front line defense against wildfires. Defensible space includes and is not limited to the following: removing all dead plants, grasses, dry leaves, and weeds near or on the structures; creating horizontal spacing between shrubs and trees; and creating vertical spacing between grass, shrubs, and trees. Creating and maintaining defensible space around a property can dramatically increase the property's chance of surviving a wildfire and improves the safety of firefighters defending the property. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation

that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion.

*CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)*

The DTSC is a regulatory agency under the California Environmental Protection Act (CEPA) that follows the Toxic Substances Control Act of 1976. The DTSC regulates chemicals that pose a risk to the environment or health of the people as well as clean up toxic materials and hazardous waste in California. The mission of DTSC is to “restore contaminated resources, enforce hazardous waste laws, reduce hazardous waste generation, and encourage the manufacture of chemically safer products.”

**LOCAL**

*SAN BERNARDINO COUNTY GENERAL PLAN*

The General Plan Safety Element (adopted in 2007) for mountain regions addresses limited aspects of man-made disasters, in particular, those aspects related to seismic events, fires, and floods.

**Safety Element**

**Goals:**

- M/S 1.** The County's emergency evacuation routes will quickly and efficiently evacuate all residents in the event of wildland fires and other natural disasters, and will ensure adequate access of emergency vehicles to all communities.

**Policies:**

- M/S 1.1** Designate the following roads and highways as evacuation routes in the in the Mountain Region: State Highways 2, 18, 38, 138, 189 and 330, and Mount Baldy Road.

**Programs**

- M/S1.** The Office of Emergency Service (OES), County Fire Department shall be responsible for the continued update of emergency evacuation plans for wildland fire incidents as an extension of the agency's responsibility for Hazard Mitigation Planning in San Bernardino County. OES shall update evacuation procedures in coordination with MAST and provide specific evacuation plans for the Mountain Region where route planning, early warning and agency coordination is most critical in ensuring proper execution of successful evacuations. OES will monitor population growth and evaluate road capacities and hazard conditions along evacuation corridors to prepare contingency plans to correspond to the location, direction and rate of spread of wildland fires.

**Goals:**

- M/S 2.** Provide a fire-safe environment throughout the Mountain Region.

**Policies:**

- M/S 1.2** Encourage expansion or development of fuel breaks adjacent to residential populated areas within the Mountain Region in a manner consistent with the intent of the General Plan.

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*LAKE ARROWHEAD COMMUNITY PLAN*

**Goals:**

- LA/S 1.** Provide adequate fire safety measures to protect residents of the plan area.

**Policies:**

- LA/S 1.1** Ensure that all new development complies with applicable provisions of the Fire Safety Overlay.

- LA/S 1.2** Work with the community and appropriate local Fire Protection agencies to ensure that there is continued evaluation and consideration of the fire protection and fire service needs of the community commensurate with population growth.

- LA/S 1.3** Work with the local Fire Safe Council, the U.S. Forest Service and Fire agencies in the development of Community Wildfire Protection Plans (CWPP) for the mountain communities. As part of this effort, a study shall be prepared to determine appropriate forest management techniques and identify any necessary modifications to the County's Tree Preservation Ordinance to ensure the long term health of the forest.

**Goals:**

- LA/S 2.** Ensure that emergency evacuation routes will adequately evacuate all residents and visitors in the event of a natural disaster.

**Policies:**

- LA/S 2.1** Work with the Public Works Department and Caltrans to ensure that an adequate road system and proper access are provided to ensure safe and efficient evacuation for residents and visitors of the mountain communities.

- LA/S 2.2** Work with the various fire agencies, the Fire Safe Councils, Caltrans, the United States Forest Service, and the community to ensure the development of an effective firebreak system.
- LA/S 2.3** Work with the U.S. Forest Service to explore opportunities to develop access routes for evacuation purposes only through the National Forest. Evacuation routes through the National Forest would only be used in the event that primary evacuation routes are found to be inadequate.

**Goals:**

- LA/S 3.** Support and coordinate disaster planning with affected agencies and organizations.

**Policies:**

- LA/S 3.1** Work with local, state, federal and other agencies involved in disaster preparedness.
- LA/S 3.2** Provide an emergency response system that is both efficient and economical.

## **IMPACT ANALYSIS AND MITIGATION MEASURES**

### **METHODOLOGY**

An evaluation of the significance of potential impacts on hazards and hazardous materials must consider both direct effects to the resource as well as indirect effects in a local or regional context. Potentially significant impacts would generally result in the loss or degradation of public health and safety or conflict with local, state, or federal agency conservation plans, goals, policies, or regulations.

### **THRESHOLDS OF SIGNIFICANCE**

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Project may have

a significant adverse impact on hazards/hazardous materials if it would do any of the following:

- Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- 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;
- 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;
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan;
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas and where residences are intermixed with wildlands.

Expose people or structures to a significant risk of loss, injury or death involving fires, including where wildlands are adjacent to urbanized areas and where residences are intermixed with wildlands.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?</i>
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**Impact 4.8-1**      **Implementation of the Project would not involve the routine transport, storage, use and disposal of hazardous materials. Thus, this would not create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials. Existing regulations applicable to hazardous materials would be complied with which would ensure the impacts to be *less than significant*.**

The routine transport, use, and disposal of hazardous materials can result in hazards to the public through the potential for accidental release. Such hazards are typically associated with certain types of land uses, such as chemical manufacturing facilities, industrial processes, waste disposal, and storage and distribution facilities. The proposed project would include the rehabilitation and re-purposing of existing buildings for restaurants, retail, and office space. The proposed project would transport standard chemicals used in retail and restaurant settings, and for construction. These uses are not expected to use significant quantities of hazardous materials or to generate significant quantities of hazardous wastes. In addition, the SkyPark at *Santa's Village Commercial Recycling Program* requires recycling all plastic concentrated cleaning supplies and recycling all motor oils from maintenance vehicles. Less than significant impacts would occur.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.8-2**      **Implementation of the Project would not 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. This impact would be less than significant.**

The project sites would not 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. According to DTSC's EnviroStor database, the Project site is not located on a known site that is included on a list of hazardous materials sites. There would not be any hazardous materials located at the site that could pose a significant threat of accidental release from construction or operation of the park. Therefore, impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</i>
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**Impact 4.8-3      Implementation of the Project would/would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses. This impact would be less than significant.**

The project sites would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The recreational and operational uses of SkyPark at Santa's Village would not generate, use, handle or emit acutely hazardous materials, substances or waste. In addition, the Project site is not located within one-quarter mile of an existing or proposed school. Therefore, this impact would be less than significant.

<i>Threshold:</i>	<i>Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</i>
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**Impact 4.8-4      Implementation of the Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it**

**create a significant hazard to the public or the environment. This impact would be *less than significant*.**

According to DTSC's EnviroStor database, the project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The proposed project would not create a significant hazard to the public or the environment. Therefore, this impact would be less than significant.

<i>Threshold:</i>	<i>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?</i>
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**Impact 4.8-5      Implementation of the Project is not located within an airport land use plan or within two miles of a public airport or public use airport where such a plan has not been adopted. This impact would be *less than significant*.**

Although the Project site is located in the vicinity of the San Bernardino International Airport, it is not in the boundaries of the airport land use plan or within two miles of a public airport or public use airport and would not result in safety hazards for people residing or working in the project area. This impact would be less than significant.

<i>Threshold:</i>	<i>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?</i>
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**Impact 4.8-6      Implementation of the Project is not located within the vicinity of a private airstrip. This impact would be *less than significant*.**

The Project site is not located within the vicinity of a private airstrip and would not result in a related safety hazard for people residing or working in the Project area. A less than significant impact would occur.

<i>Threshold:</i>	<i>Would the Project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?</i>
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**Impact 4.8-7**      **Implementation of the Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. This impact would be *less than significant*.**

The California Emergency Services Act mandates planning and plans for a local emergency to be generated and then coordinated with the State Emergency Plan. The San Bernardino County Emergency Operations Plan (OEP) provides a comprehensive, single source of guidance and procedures for the County to prepare for and respond to significant or catastrophic natural, environmental or conflict-related risks that produce situations requiring coordinated response. The EOP is consistent with the requirements of the Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS) and is based on and is compatible with the National Response Framework (NRF) and the State of California Emergency Operations Plan. San Bernardino County has one of the most comprehensive set of programs to mitigate the potential for catastrophic wildfires in the nation. There is no other jurisdiction that has the comprehensive, multi-agency cooperation and coordination as found in San Bernardino County. This was accomplished when the Board of Supervisors established the Mountain Area Task Force (MAST) in 2003. Since its beginnings, it has been the Unified Command that has successfully implemented and completed numbers programs leading to safer communities, a more educated public and improved environment. The goals and objectives in the EOP focus on forest care and fuel reduction programs. The proposed Project would not interfere with the EOP, the adopted emergency response plan.

As outlined in the Safety Element of the General Plan, residents' primary concerns regarding safety in their community revolve around fire protection and the need for improved evacuation routes. SR-189, SR-173, SR-18, Grass Valley Rd., Daley Canyon, North Bay and Peninsula are designated as evacuation routes. Specific evacuation routes will be designated during an emergency in order to respond to the specific needs of the

situation and circumstances surrounding the disaster and will be handled in accordance with the evacuation procedures contained in the County's EOP.

The proposed Project is located north and south of SR-18. The Project is required to consolidate driveways on SR-18 to one location and to install a signalized intersection with striped crosswalks across SR-18. These improvements are required to be constructed in accordance with Caltrans design standards. These improvements will not obstruct SR-18, or adversely affect the ability of SR-18 to continue to function as a key route for emergency evacuation of the mountain communities.

In addition, the property owner has developed an Emergency Evacuation Plan specifically for the proposed Project. The *SkyPark at Santa's Village Emergency Evacuation Plan* includes the following:

- Communicating and working with emergency service authorities to insure adequate traffic flows in evacuating mountain residents on SR-18;
- A designated responsible official (highest management position) onsite shall monitor evacuation flow with Emergency Zone Management and assume liaison duties with external San Bernardino County emergency service authorities;
- A 15 to 20 emergency personnel staff consisting of onsite park managers, assistant managers will assume emergency zone management positions (five Zone Management Teams of three to four persons) and perform the following duties: Activate emergency sound alarms located in strategic areas in the park (Old Homestead Site, Water Tower, and Main Village Area); Wear reflective emergency vests to be immediately recognizable to the Public and gather supplemental evacuation backpacks carrying flashlights and first aid equipment. Vehicle evacuation will commence if safe to do so in an orderly and calm fashion, being directed by Management Teams. The Top of The World Upline road, which starts at the Good Witch Bakery/ Upper Village Gate and traverses the Bike Trails area, and eventually exits onto SR-18, West of Heaps Peak, may be utilized as an additional vehicle exit point. Furthermore, if mountain transportation corridors are severely impacted, Zone Management Teams will direct visitors and employees to shelter in the Campground, North and South Parking Lots, whilst

keeping helicopter landing zone free and clear at all times until Emergency Services notification is provided.

The proposed Project includes an amendment to the Lake Arrowhead Community Plan and the Circulation Element of the County of San Bernardino General Plan. An amendment to the Lake Arrowhead Community Plan Policy LA/CI 1.14 is proposed to provide additional clarification and specificity for implementation while retaining the initial intent of the policy.

Policy LA/CI 1.14 is currently in the Lake Arrowhead Community Plan as:

Complete Cumberland Road<sup>1</sup> from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.
- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

The proposed amendment to this policy is identified using underline for new text and strikethrough for removed text as follows:

~~Complete Cumberland Road from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area~~ Require the design and construction of the extension of Cumberland Drive from Cedar Glen to State Highway 18 as a condition of development of any new residential subdivision extending from Cumberland Drive, Blue Ridge Drive, or Greenbriar Drive and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.

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<sup>1</sup> In the Lake Arrowhead Community Plan Policy LA/CI 1/14, the roadway in reference is called Cumberland Road, however, on other maps (Google, Mapquest, etc.) it is referred to as Cumberland Drive. The proposed changes to Policy LA/CI will use Cumberland Drive.

- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

The intent of the existing Lake Arrowhead Community Plan Policy LA/CI 1.14 is to ensure that any new development projects that will increase the number of residents in the Cedar Glen/Skyforest area, will have adequate access to evacuation routes, including SR-173 and SR-18, in the event of a fire or other emergency. Currently Cumberland Drive only connects to SR-173 in the north and residents in the Cedar Glen area north and northwest of the Project site would need to utilize Cumberland Drive north to SR-173 to evacuate, further burdening Cumberland Drive and SR-173 in Cedar Glen and Lake Arrowhead. From SR-173 they could continue on SR-173 to evacuate to the north, or take SR-173 to the southwest to connect to SR-18 to evacuate to the southwest or southeast from the mountains. A future extension of Cumberland Drive from its existing southern terminus further south to connect with SR-18 would provide a shorter and more direct connection to SR-18 for existing and any new residents in the area north of the Project site, south to SR-18.

The proposed amendment to LA/CI 1.14 provides additional clarification on what type of development and more specificity on the location of development that this policy is to be applied. New residential development would result in an increase in the number of people that would need to utilize the local roadway network to access evacuation routes from the mountain in the event of a fire or other emergency. If one or more new residential developments were to be completed without the extension of Cumberland Drive to SR-18 to the south, it would result in additional residents having to drive north on Cumberland Drive to SR-173 to SR-18 as compared to direct access to SR-18 with the extension. The proposed Project would result in an increase in visitors to the mountains, the number of which will vary depending on the time of year and the time of day, however, it will not result in an increase in the population residing in the mountains. The Project site currently has immediate access to SR-18, a key evacuation route, and no extension of Cumberland Drive is needed for the SkyPark visitors and employees to directly access SR-18. Therefore, the proposed amendment to Policy LA/CI 1.14 retains the initial intent of the policy and only adds additional clarification on the type of

developments and specificity on the location of developments in which the policy is to be applied to.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site, as a potential future contribution for the extension of Cumberland Drive. The extension of Cumberland Drive is expected to be constructed at some time in the future. In order for the Cumberland Drive extension to occur the following would have to occur:

- Property owners to the north of the Project site submit applications to the County for planned residential development;
- An alignment study is completed and reviewed and approved by the County Public Works Department to identify the exact location of the roadway;
- Future residential development or developments north of the Project site design and construct the extension of Cumberland Drive to SR-18 as a condition of approval, in accordance with the location identified in the alignment study.

As such, it cannot be determined at this time if the dedication as a part of the proposed Project will actually be used for an extension of Cumberland Drive. However, the dedication of right-of-way within the Project site ensures that the property will be retained for that purpose, if the road is to be constructed and in that location. Therefore, the proposed Project will not conflict with the potential future implementation of Lake Arrowhead Community Plan Policy LA/CI 1.14. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities.

Currently Cumberland Drive is designated as a Mountain Secondary (60-foot right-of-way) in the County's General Plan Circulation Element, as shown on Figure CI-2, *Major Roads and Freeways – Mountain Region*. The proposed amendment to the Circulation Element is to change the designation of Cumberland Drive from Mountain Secondary to Local Road (40-foot right-of-way). Cumberland Drive, as currently identified as a Secondary Street in Figure CI-2, *Major Roads and Freeways – Mountain Region* of the

Circulation Element, would be removed from this figure as local streets are not shown on it.

Lake Arrowhead Community Plan Policy LA/CI 1.14 was developed based on the anticipation that the undeveloped areas north and northwest of the existing Santa's Village attraction would be developed as residential. The undeveloped areas north and northwest of the Project site are currently located within the Lake Arrowhead Single Residential 14,000 minimum (LA/RS-14m) Land Use District which allow for single residential units on individual lots with a minimum lot size of 14,000 square feet. The Project site is also in the LA/RS-14m and LA/SD-RES Land Use Districts. LA/SD -RES allows for a combination of residential, commercial, and/or manufacturing activities that maximizes the utilization of natural as well as man-made resources. The proposed Project includes an amendment to change the existing Land Use Districts from LA/RS-14m and LA/SD-RES to Lake Arrowhead/Rural Commercial (LA/CR). The (LA/CR) Land Use District provides sites in rural areas where a range of commercial services intermixed with residential uses can be established which are limited in scope and intensity and meet the need of the remote population and the traveling public. The proposed amendment to the Land Use District designation reduces the intensity of residential development allowed. Further, the proposed Project does not include the construction of residences. Therefore, the proposed Project is reducing the number of residences in the Project area as compared to development of the area in accordance with the current Land Use Districts that would utilize an extension of Cumberland Drive south to SR-18, if it were to be constructed.

The change in classification from Mountain Secondary to Local Roadway will not adversely affect the ability of the existing segment of Cumberland Drive to continue to serve as a local connector to SR-173. The existing segment of Cumberland Drive north of the project between SR-173 and Bald Eagle Ridge Road is a two lane road with a painted center divider. The change in classification will not change the number of lanes, it will continue to be a two lane road, with one lane in each direction. The fire department requires that local roads are paved to a minimum width of 26-feet. A local roadway classification requires a two lane, 26-foot paved road with one lane in each direction.

Cumberland Drive, with a local roadway classification will continue to provide the same level of access and evacuation capacity.

Implementation of the proposed Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or existing emergency evacuation routes and therefore, potential impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas and where residences are intermixed with wildlands.</i>
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**Impact 4.8-8      Implementation of the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires with Mitigation Incorporated.**

Based off the California Department of Forestry and Fire Protection (Cal Fire), the Project is not located within a Very High Hazard Severity Zone. The list of areas in San Bernardino County with a Very High Hazard Severity Zone does not include Lake Arrowhead or the Skyforest community.

The *California Cooperative Forest Management Plan (CCFMP)* includes fire protection objectives to increase the property's defense against fire, as well as maintain a healthy forest for recreational purposes. Some of the objectives include managing areas overgrown with chaparral and shade tolerant trees by clearing and trimming. Doing so creates horizontal and vertical defense space between the ground and the lower branches of larger trees during a fire. In addition, sheltered fuel breaks would be implemented along roads and near structures for future fire prevention or spread. The CCFMP also includes forest health objectives in order to return the forest to a more fire resilient state and to potentially reduce the threat of insect and disease introduced by stress caused from droughts and fire events. Removing chaparral and diseased tree species will accomplish the desired objectives. A routine schedule for maintenance would be important to sustain the changes of the property. Thus, yearly assessments to determine

the timing to reduce competition of weeds and brush by mechanical or chemical treatment and an entry to thin trees would be necessary steps in restoration efforts.

Several community camp fire rings are proposed at the campground. These camp fire rings would be supplied by natural gas and burning of wood or other materials at the campground would not be allowed. In addition to management plan objectives, mitigation measures below would further reduce the potential of exposing people or structures to a significant risk of loss, injury or death involving wildland fires.

**MM HAZ-1:** No smoking will be strictly enforced on the property, including but not limited to the campground site and Santa's Village.

**MM HAZ-2:** There will be no wood burning fires that create windblown embers. The campground site will include a few community fire rings that are supplied by natural gas lines extended from Santa's Village to the campground. The fire rings will be monitored during use.

Use of camp fire rings at the campground must be operated in accordance with the San Bernardino County Fire Protection District Fire Code<sup>2</sup>. A permit must be obtained by the fire code official prior to use of the camp fire rings at the campground.

In case of a wildfire, the proposed Project would have adequate readily available water and pressure to meet fire flow standards. The existing 20,000-gallon water tank on the campground site will supply campground users/restrooms/showers but can also be used for fighting wildfires if needed. Additionally, the Skyforest Mutual Water Company (SFMWC) has adequate ground water sources, storage, and distribution line capacities to provide water to the Project in sufficient quantities to satisfy domestic water services and fire flow protection requirements for the proposed land use. Furthermore, the Crestline-Lake Arrowhead Water Agency (CLAWA), a water wholesaler delivering imported California State Water Project water to Crestline/Lake Arrowhead area has a waterline within an easement across the site, and there are multiple fire hydrants along this pipeline

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<sup>2</sup> [http://www.sbcounty.gov/Uploads/SBCFire/content/fire\\_marshall/pdf/2011\\_SBCFPD\\_Ordinance.pdf](http://www.sbcounty.gov/Uploads/SBCFire/content/fire_marshall/pdf/2011_SBCFPD_Ordinance.pdf)

that could be accessed and used during emergencies. A less than Significant impact would occur with implementation of mitigation measures.

## **CUMULATIVE IMPACTS**

Although the proposed Project would induce visitors to the Skyforest and Lake Arrowhead communities, visits would be temporary, and therefore additional housing development would not be needed as a result of the Project. Additionally, as mentioned above, the proposed Project would be in compliance with requirements established by the County, the California Department of Forestry and Fire Protection and the United States Forest Service such as the provision of fuel modification zones, following the California Cooperative Forest Management Plan, and preparation of an evacuation plan to ensure that appropriate fire hazard risks are reduced. With the with implementation of mitigation measures, the proposed project, in conjunction with other past, present, or reasonably foreseeable future projects, would not result in a significant cumulative impact related to fire hazards.

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## 4.9 HYDROLOGY AND WATER QUALITY

This section describes regulations related to hydrology and water quality in the Project area, identifies criteria for impacts on hydrology and water quality, and evaluates potential impacts associated with the proposed Project. Information given in this section is based on hydrology and water quality information obtained from available public resources including the State of California Regional Water Quality Control Board's *Water Quality Control Plan for the Lahontan Region* (2015) and *Water Quality Control Plan for the Santa Ana River Basin* (2011). Information for this section was also obtained from the *Hydrogeologic Evaluation of the Proposed SkyPark at Santa's Village, San Bernardino Technical Memorandum* (December 2015; Appendix G), and the *USDA Natural Resources Conservation Service Detail Plans for the Water & Sediment Control Basin and Lined Waterway for SkyPark Santa's Village LLC and Drawings and Specifications* (October 2015).

## ENVIRONMENTAL SETTING

### SURFACE WATER

According to the Santa Ana River Basin Plan the east-west alignment of the crest of the San Gabriel and San Bernardino Mountains separates the Santa Ana River basin from the Mojave Desert, which is part of the Lahontan Basin Plan. At the project site SR-18 is the high point and the dividing line between the Santa Ana River Basin Plan and the Lahontan Basin Plan. The portion of the site south of SR-18 (parking lot and campground) is within the Santa Ana River basin watershed and the portion of the site north of SR-18 is within the Mojave River watershed.

The southern portion of the site contains an existing asphalt paved parking lot for overflow day use parking for the park, and existing water tank on a hill, the highest point of this part of the site, and a graded dirt road that loops around and connects to the day use parking areas. Storm water runoff from the day use parking areas sheet flow across this area to the lowest point, the northwest corner of the day use parking area adjacent to SR-18 and then in a southern direction down the mountain side. There are two unnamed

ephemeral drainage features located south of SR-18 in the headwaters of the Santa Ana River watershed, that are tributary to City Creek, a tributary to the Santa Ana River.

The entire Santa's Village attraction area between attractions/buildings was paved with asphalt. Stormwater runoff from the developed park area and surrounding forested area to the park area and parking lot are conveyed via sheet flow downslope to the park area and into v-ditches and corrugated pipes to the northern portion of the developed site and end of paved parking lot to the disturbed grassy meadow. Stormwater runoff is conveyed in a northern direction through the disturbed meadow in a small incised channel to a manmade pond. This pond is approximately 200-250 feet long by 200-250 feet wide and approximately 25 feet deep (from top of the earthen levee along its northern edge to the bottom). The water contained in the pond is from groundwater and storm water runoff. The pond does not contain water pumped from a well or provided by the local water purveyor. The water level in the pond currently is low due to the drought. Since excavated, storm water runoff from areas upstream have conveyed and deposited sediment and debris to the pond resulting in a shallower pond.

Hooks Creek is the primary hydrogeomorphic feature found on-site and generally flows in a southwest to northeast direction. Hooks Creek originates near the southwestern corner of the property and extends along the western boundary of the site before it exits near the northeastern corner of the property. Stormwater runoff originating north of SR-18 sheet flows for approximately 700 feet across the existing paved parking lot of Santa's village before flowing into the grassland meadow. Hooks Creek extends through Hencks Meadow for approximately 530 feet before it continues for approximately 420 feet through the area previously disturbed when it was used as a storage yard and staging area for the bark beetle infested lumber. Hencks Meadow is a natural, narrow meadow located northeast of the existing parking lot north of SR-18, along the property's eastern boundary. Per a 1953 USGS topographic map, Hooks Creek was mapped as intermittent in the Hencks Meadow area and perennial downstream of Hencks Meadow. After the disturbed area, Hooks Creek extends through a southern willow scrub plant community for approximately 1,200 feet before exiting the property. One unnamed ephemeral drainage feature is located in the northern portion of the site and tributary Hooks Creek. Hooks Creek is tributary to Deep Creek and ultimately the Mojave River.

## GROUNDWATER

Groundwater in the project area occurs in the complex rock fractures that are recharged through percolation of precipitation and surface water. There are three existing wells on the site (refer to Figure 2 of *Hydrogeologic Evaluation of the Proposed SkyPark at Santa's Village, San Bernardino Technical Memorandum*, contained in Appendix G). Meadow Well is an active well and is located in Hencks Meadow. Well #6 is an inactive well and is located on the northern end of Hencks Meadow. The Fire Ring Well is an active well and is located in the northern portion of the site, west of Hooks Creek. The wells are located within the Hook's Creek subunit of the Upper Mojave River watershed. Depth to groundwater measured in August 2014 was 19 feet below the ground surface (ft bgs) in the Fire Ring Well and 5 ft bgs in the Meadow Well. A log book from the previous property owners recorded the depth to water in 1997 as 5 ft bgs in the Meadow Well. It is assumed that the groundwater flow follows the topography. Therefore, in the Hooks Creek subunit, groundwater is assumed to flow towards Hooks Creek and then to the northeast in the same direction as surface flow water.

## REGULATORY FRAMEWORK

### FEDERAL

#### *CLEAN WATER ACT (ALSO KNOWN AS THE WATER POLLUTION CONTROL ACT)*

The Clean Water Act is the principal Federal law that addresses water quality. The primary objectives of the Clean Water Act are to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters," and to make all surface waters "fishable" and "swimmable." The implementation plan for these objectives includes the regulation of pollutant discharges to surface water, financial assistance for public wastewater treatment systems, technology development, and non-point source pollution prevention programs. The Clean Water Act also establishes that states adopt water quality standards to protect public health or welfare and enhance the quality of water. The use and value of State waters for public water supplies, propagation of fish and wildlife, recreation, agriculture, industrial purposes, and navigation must also be considered by the states.

Section 402 of the Clean Water Act requires persons who discharge into waters of the United States to meet stringent standards under the National Pollutant Discharge Elimination System (NPDES). The NPDES program is administered by the EPA and by states with delegated programs, and applies to point source discharges, as well as to non-point sources such as surface runoff from a site during or following a storm. However, the NPDES program in Section 402 applies only to discharges into waters of the United States. Surface water quality is the responsibility of the State Water Resources Control Board (SWRCB) through its nine Regional Water Quality Control Boards (RWQCBs), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits.

Pursuant to requirements of the SWRCB, NPDES General Construction Permit No. CAS5000002 applies to statewide construction activities including clearing, grading, or excavation that results in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. In most cases, the NPDES permit program is administered by authorized states. In California, these programs are administered by the SWRCB and by nine RWQCBs that issue NPDES permits and enforce regulations within their respective regions. A requirement of the State General Construction Activity NPDES permit is the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must identify and implement Best Management Practices (BMPs) to reduce impacts to surface water from contaminated storm water discharges during the construction of the Proposed Action. Required elements of a SWPPP include the following:

- Site description addressing the elements and characteristics specific to the site;
- Descriptions of BMPs for erosion and sediment controls;
- BMPs for waste handling and disposal;
- Implementation of approved local plans;
- Proposed post-construction control requirements; and
- Non-storm water management.

Additionally, Section 303 of the Clean Water Act requires that the State adopt water quality standards for surface waters. Section 303(d) specifically requires the State to develop a list of impaired water bodies and subsequent numeric total maximum daily loads (TMDLs) for whichever constituents impair a particular water body. These constituents include inorganic and organic chemical compounds, metals, sediment, and biological agents. The EPA approved a revised list of impaired waters pursuant to Section 303(d) in July 2003. Hooks Creek is tributary to Deep Creek; neither are listed as impaired. Deep Creek is tributary to the Mojave River (Mojave Forks Reservoir outlet to Upper Narrows) which is impaired for fluoride. The campground area (south side of SR-18) is tributary to City Creek (not listed as impaired) which is tributary to Reach 5 of the Santa Ana River from Seven Oaks Dam to San Bernardino (not listed as impaired). However, Reach 4 of the Santa Ana River (downstream of Reach 5) is listed as impaired for pathogens and salinity/total dissolved solids/chlorides.

## STATE

### *CALIFORNIA WATER CODE*

The California Water Code is the principal State law regulating water quality in California. Other California Codes contain water quality provisions requiring compliance as they relate to specific activities. The California Water Code regulates water and its uses. Division 7 of the California Water Code, also known as the Porter-Cologne Act, establishes a program to protect water quality and beneficial uses of the State water resources and includes both ground and surface waters. The SWRCB and the RWQCB are the principal State agencies responsible for control of water quality. The SWRCB and the RWQCB establish waste discharge requirements, water quality control and monitoring, enforcement of discharge permits, and ground and surface water quality objectives. They also prevent waste and unreasonable use of water and adjudicate water rights.

## REGIONAL

Each of the nine RWQCBs adopts a Water Quality Control Plan, or 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. Water quality problems in the region are listed in the Basin Plans, along with the causes, where they are known. Each RWQCB is to set water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of nuisance, with the understanding that water quality can be changed somewhat without unreasonably affecting beneficial uses. The southern portion of the Project site (south of SR-18) is located in the Santa Ana River watershed and covered under the Water Quality Control Plan for the Santa Ana River Basin. The northern portion of the Project site (north of SR-18) is located in the Mojave River Watershed and covered under the Water Quality Control Plan for the Lahontan Region.

## LOCAL

### *SAN BERNARDINO COUNTY GENERAL PLAN*

#### **Goal:**

- CO 5.4** Drainage courses will be kept in their natural condition to the greatest extent feasible to retain habitat, allow some recharge of groundwater basins and resultant savings. The feasibility of retaining features of existing drainage courses will be determined by evaluating the engineering feasibility and overall costs of the improvements to the drainage courses balanced with the extent of the retention of existing habitat and recharge potential.

#### **Programs**

1. Seek to retain all natural drainage courses in accordance with the Flood Control Design Policies and Standards where health and safety is not jeopardized.

2. Prohibit the conversion of natural watercourses to culverts, storm drains, or other underground structures except where required to protect public health and safety.
3. Encourage the use of natural drainage courses as natural boundaries between neighborhoods.
4. Allow no development, which would alter the alignment, direction, or course of any blue-line stream, in designated flood plains.
5. When development occurs, maintain the capacity of the existing natural drainage channels where feasible, and flood-proof structures to allow 100-year storm flows to be conveyed through the development without damage to structures.
6. Consistent with the County's efforts to protect the public from flood hazards, encourage the use of open space and drainage easements, as well as clustering of new development, as stream preservation tools.
7. Where technically feasible as part of its efforts to protect residents from flood hazards, require naturalistic drainage improvement where modifications to the natural drainage course are necessary. As an example, channel linings that will allow the re-establishment of vegetation within the channel may be considered over impervious linings (such as concrete). Where revegetation is anticipated, this must be addressed in the channel's hydraulic analysis and the design of downstream culverts.
8. Establish an economically viable flood control system by utilizing channel designs including combinations of earthen landscaped swales, rock rip-rap-lined channels, or rock-lined concrete channels. Where adjacent to development, said drainage will be covered by an adequate County drainage easement with appropriate building setbacks established therefrom.

9. Do not place streams in underground structures where technically feasible, except to serve another public purpose and where burial of the stream is clearly the only means available to safeguard public health and safety.

**Goals:**

- M/CO 3.** Conserve and protect surface and groundwater resources to meet the needs of a growing mountain population, to support the mountain environment and forest watershed and to preserve the quality of life for mountain residents and visitors.
- M/CO 3.1** Utilize open space and drainage easements as well as clustering of new development as stream preservation tools.
- M/CO 3.2** Require naturalistic drainage improvements where modifications to the natural streamway are required.
- M/CO 3.3** Prohibit exposed concrete drainage structures. Acceptable designs include combinations of earthen landscaped swales, rock rip-rap lined channels or rock-lined concrete channels. Property owners must provide for the maintenance of underground drainage structures.
- M/CO 3.4** Streams shall not be placed in underground structures in any residential, Neighborhood Commercial or Institutional Land Use Zoning District or zone.
- M/CO 3.5** Development that is found consistent with the Floodway (FW) Land Use Zoning District or zone shall neither alter the natural stream course alignment nor alter natural flows.
- M/CO 3.6** Minimize the runoff of surface water and establish controls for soil erosion and sedimentation through the following policies:
- a. Through the development review process, require replanting of ground cover in denuded areas with

revegetation, either indigenous to the area or compatible with the climate and soil characteristics of the region.

- b. When development occurs, provide for the retention of natural drainage channels and capacity of the site where feasible.
- c. When feasible, require developers, through the development review process, to maintain existing percolation and surface water runoff rate by discouraging the paving of large surface areas.

**M/CO 3.7** Discourage the extraction and exportation of native groundwater for commercial purposes due to limited groundwater resources coupled with the increasing demands on this precious resource.

**M/CO 3.8** Coordinate with Mountain wastewater and water agencies in establishing programs designed to use reclaimed wastewater from Mountain sewage systems to recharge the local groundwater basins when consistent with County public health and environmental standards.

**M/CO 3.9** Support and apply water conservation and reuse measures through the development review process.

*LAKE ARROWHEAD COMMUNITY PLAN*

**Goals:**

**LA/CO 4.** Enhance and maintain the quality of water from Lake Arrowhead and Grass Valley Lake, their tributaries and underground water supplies.

**Policies:**

- LA/CO 4.1** Require the hook-up to sewers of any properties currently adjacent to lines within the Lake Arrowhead Community Service District through notification by the district.
- LA/CO 4.2** Enforce grading and landscaping standards to reduce soil erosion.
- LA/CO 4.3** Ensure that the County Building Code incorporates appropriate construction activity control measures.

## **IMPACT ANALYSIS AND MITIGATION MEASURES**

### **METHODOLOGY**

An assessment of hydrology and water quality impacts was prepared by evaluating the existing hydrology and water quality settings and comparing it to hydrology and water quality conditions that would occur with implementation of the proposed Project. An evaluation of the significance of potential impacts on hydrology and water quality must consider both direct effects to the resource, as well as indirect effects in a local or regional context. When considering the significance of an individual impact, the EIR considers the existing Federal, State, and local regulations, laws and policies in effect, including applicable *San Bernardino County General Plan* and *Lake Arrowhead Community Plan* policies. In addition, the impact analysis considers the Project design features that have been incorporated into the Project to avoid, reduce or offset potential impacts.

### **THRESHOLDS OF SIGNIFICANCE**

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Plan may have a significant adverse impact on hydrology and water quality if it would do any of the following:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new 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);

- 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 which would result in substantial erosion or siltation on- or offsite;
- 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 runoff in a manner which would result in flooding on- or offsite;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- 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;
- 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;
- Inundation by seiche, tsunami, or mudflow.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project violate any water quality standards or waste discharge requirements?</i>
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**Impact 4.9-1**      **Implementation of the Project would not violate any water quality standards or waste discharge requirements. This impact would be less than significant.**

The Santa Ana Region Basin Plan and Lahontan Region Basin Plan identify beneficial uses for water bodies in which water uses could benefit people and/or wildlife such as

drinking, swimming, agricultural, and the support of fresh and saline aquatic habitats. Table 4.9-1, *Beneficial Uses and Constituents for Water Bodies Within or Downstream of the Project Area* summarizes the Basin Plan’s beneficial uses for water bodies within, or downstream of, the Project area and Table 4.9-2 defines the abbreviated beneficial uses described in Table 4.9-1.

**Table 4.9-1: Beneficial Uses and Constituents for Water Bodies Within or Downstream of the Project Area**

Water Body Name	303(d) List Constituents	TMDL Constituents	Beneficial uses
City Creek	--	--	MUN, AGR, GWR, REC1, REC2, COLD, WILD, RARE, SPWN
Santa Ana Reach 5	--	--	MUN, AGR, GWR, REC1, REC2, WARM, WILD, RARE
Santa Ana Reach 4	Pathogens Salinity/TDS/Chlorides	--	GWR, REC1, REC2, WARM, WILD, SPWN
Hooks Creek	--	--	MUN, AGR, REC1, REC2, COMM, WARM, COLD, WILD,
Deep Creek	--	--	MUN, AGR, GWR, REC1, REC2, COMM, COLD, WILD
Mojave River (Mojave Forks Reservoir outlet to Upper Narrows and Upper Narrows to Lower Narrows)	Fluoride, Sulfates	--	MUN, AGR, GWR, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, WQE, FLD

\*Beneficial use is intermittent; Source: Santa Ana Region Basin Plan, Table 3-1, Lahontan Region Basin Plan, Table 2-1

**Table 4.9-2: Abbreviation Definitions for Beneficial Uses**

Abbreviation	Definition and Use
MUN	Municipal and Domestic Supply waters are used for community, military, municipal, or individual water supply systems. These uses may include, but are not limited to, drinking water supply.

Abbreviation	Definition and Use
<b>AGR</b>	Agricultural Supply waters are used for farming, horticulture, or ranching including. These uses may include, but are not limited to, irrigation, stock watering, and support of vegetation for range grazing.
<b>GWR</b>	Groundwater Recharge waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality, or halting saltwater intrusion into freshwater aquifers.
<b>REC1</b>	Water Contact Recreation waters are used for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses may include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing, and use of natural hot springs.
<b>REC2</b>	Non-Contact Water Recreation waters are used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.
<b>COMM</b>	Commercial and Sportfishing waters support use for commercial or recreational collection of fish or other organisms including, but not limited to, uses involving organisms intended for human consumption.
<b>WARM</b>	Warm Freshwater Habitat waters support warm water ecosystems that may include, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.
<b>COLD</b>	Cold Freshwater Habitat waters support coldwater ecosystems that may include, but are not limited to, preservations and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.
<b>WILD</b>	Wildlife Habitat waters that support terrestrial ecosystems including, but not limited to, preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.
<b>RARE</b>	Rare, Threatened or Endangered Species waters that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under State or Federal law as rare, threatened or endangered.

Abbreviation	Definition and Use
SPWN	Spawning, Reproduction and/or Early Development waters that support high quality aquatic habitats suitable for reproduction and early development of fish and wildlife.
MIGR	Migration of Aquatic Organisms supports habitats necessary for migration, acclimatization reproduction and early development of fish and wildlife.
WQE	Water Quality Enhancement waters support natural enhancement or improvement of water quality in or downstream of a water body including, but not limited to erosion control, filtration and purification of naturally occurring water pollutants, streambank stabilization, maintenance of channel integrity, and siltation control.
FLD	Flood Peak Attenuation/Flood water storage waters that support riparian wetlands in flood plain areas and other wetlands that receive natural surface drainage and puffer its passage to receiving waters.

Source: Santa Ana Region Basin Plan, Chapter 3; Lahontan Region Basin Plan, Chapter 2

Once beneficial uses are identified in the Basin Plans, objectives for the quality of the water bodies are established to protect the beneficial uses. Table 4.9-3 summarizes the Santa Ana Region Basin Plan’s numeric water quality objectives for the bodies within, or downstream of, the Project area.

**Table 4.9-3: Water Quality Objectives for Water Bodies Within or Downstream of the Project Area, Santa Ana Region Basin Plan**

Watershed/Stream Reach	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Total Inorganic Nitrogen (mg/L)	Sulfate (mg/L)	Chemical Oxygen Demand (mg/L)
City Creek	200	115	30	10	1	20	5
Santa Ana Reach 5	300	190	30	20	5	60	25
Santa Ana Reach 4	550	-	-	-	10	-	30

Source: Santa Ana Region Basin Plan, Table 4-1

Table 4.9-4 summarizes the Lahontan Region Basin Plan's numeric water quality objectives for the bodies within, or downstream of, the Project area.

**Table 4.9-4: Water Quality Objectives for Water Bodies Within or Downstream of the Project Area, Lahontan Region Basin Plan**

Watershed/Stream Reach	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Boron (mg/L)	Nitrate as Nitrogen (mg/L)	Nitrogen, Total (mg/L)	Orthophosphate, Dissolved (mg/L)
Hooks Creek	127	10.0	13.0	0.17	0.06	2.5	-	0.05
Deep Creek (below Lake)	123	16.0	4.9	0.19	0.07	0.06	0.07	0.13
Deep Creek (at Forks Dam)	265	16.0	55.0	2.60	0.19	2.0	-	-
Mojave River (at Forks)	-	100	100	2.5	0.3	-	-	-

Source: Lahontan Region Basin Plan, Table 3-21

*CONSTRUCTION*

Construction of the proposed improvements would be required to comply with the Construction Storm Water Permit. The main compliance requirement of the NPDES permits is the development of a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP must identify potential onsite pollutants, and identify and implement appropriate stormwater pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. Stormwater Best Management Practices (BMPs) to be implemented during construction and grading would be outlined in the SWPPP prepared for this Project; examples include: use of silt fencing, sandbags or straw bales to control runoff, and identification of emergency procedures in case of hazardous materials spill. Compliance with the Construction Storm Water Permit and implementation of the SWPPP would ensure that the Project would not violate any water quality standards or waste discharge requirements during construction activities.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the existing dirt road and Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities. The extension of Cumberland Drive is expected to be constructed at some time in the future. If Cumberland Drive were to be extended south and utilize the alignment of the 20-foot dedicated right-of-way, this alignment is along an existing utility easement and dirt road. Any future construction of a roadway along this alignment would be required to comply with the Construction Storm Water Permit including implementation of the SWPPP, which would ensure that this construction activity would not violate any water quality standards or waste discharge requirements.

#### *OPERATIONS AND MAINTENANCE*

##### SKYPARK AT SANTA'S VILLAGE (NORTH OF SR-18)

The entire Santa's Village attraction area between attractions/buildings was paved with asphalt. Stormwater runoff from the developed park area and surrounding forested area to the park area and parking lot are conveyed via sheet flow downslope to the park area and into v-ditches and corrugated pipes to the northern portion of the developed site and end of paved parking lot to the disturbed grassy meadow. Stormwater runoff is conveyed in a northern direction through the disturbed meadow in a small incised channel to the pond.

The improvements to Santa's Village attraction will include the repair of hardscaping and landscaping. The asphalt pavement between the buildings will be replaced with concrete and rock and other hardscaping to improve on site drainage. Stormwater runoff from the Amusement Park Zone and northern parking lot will continue to be directed by improvements in a northwest direction to the meadow.

The U.S. Department of Agriculture, Natural Resources Conservation Service has developed a Conservation Plan for Hencks Meadow. The objectives of the Conservation

Plan are to restore and enhance the meadow within the forestland and conservation practices will promote wildlife by providing cover, water and food. The Conservation Plan includes construction of a series of three water and sediment control basins between the northern parking lot and the pond. The existing small incised channel will be replaced with a rock lined waterway between and connecting the three water and sediment control basins and between the last basin to the existing pond. The water and sediment control basins will be constructed and maintained to form a sediment trap and water retention basin. The structures reduce water course and gully erosion, traps sediment, reduces and manages onsite and downstream runoff and improves downstream water quality. Installation will be according to approved NRCS plans and specifications for this practice. Vegetation and/or structures will be installed and maintained to stabilize and protect the streambank of the waterway connecting the basins and the pond against scour and erosion. This prevents the loss of land or damage to facilities, reduces sedimentation and improves habitat for fish and wildlife. Installation will be according to approved NRCS plans and specifications for this practice. The Conservation Plan also outlines hedgerow planning for a living fence of shrubs, and or threes that will be established and maintained within, across or around a field. These will delineate field boundaries, serve as fences, establish contour guidelines, provide wildlife food and cover or vegetative screens. Performance will be according to NRCS specifications for this practice. The Conservation Plan also outlines removal of obstructions and unwanted material (wood chips), herbaceous weed control to remove or control herbaceous weeds including invasive, noxious or prohibited plans, and installation of structures for wildlife including brush piles, downed wood and nesting boxes.

The water and sediment control basins, 10-foot wide rock lined water way, and replanted meadow will replace the existing small incised channel watercourse and disturbed meadow. These facilities will provide for the removal of trash and debris, oil and grease from the parking lot, and sediment removal from stormwater runoff from the developed areas and improvements. These improvements will greatly improve the water quality of stormwater runoff from the northern developed portions of the site before they enter Hooks Creek and downstream receiving water bodies. The basins will be maintained on an as needed basis to retain full capacity and function. It is anticipated that the southernmost basin will receive stormwater runoff first from the parking lot will require

more frequent maintenance as it will receive the greatest amount of trash, debris, and sediment.

*Campground (south of SR-18)*

Stormwater runoff from the campground site currently sheet flows in a southern direction, down the mountain side vegetated with chaparral vegetation. The campground improvements will include the campground road, campsite pads, and the restroom/show/laundry building and associated septic system. The campground improvements will be installed in an area that is already disturbed from historic fires and the storage and processing of bark beetle infested timber. Stormwater runoff from the area will continue to sheet flow in a southern direction and down the steep mountain side and toward City Creek and the Santa Ana River. Campground maintenance will include regular clean-up of trash. The campground improvements would not result in a significant source of pollutants that could be picked up in stormwater runoff and carried to downstream receiving water bodies.

With implementation of all BMPs outlined in the SWPPP and required to prevent sediment and other pollutants from entering surface waters during construction activities potential impacts to water quality will be reduced to less than significant impacts. Implementation of the NRCS Conservation Plan for Hencks Meadow which includes construction of a series of water and sediment control basins and a 10-foot wide rock lined waterway conveying stormwater runoff from the developed amusement park zone and northern parking lot, between the basins, and to the existing pond, will result in a much higher level of water quality treatment of the stormwater runoff that enters the existing pond and downstream Hooks Creek than occurs today. Implementation of the Project would not violate any water quality standards or waste discharge requirements and potential impacts are less than significant.

<i>Threshold:</i>	<i>Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new 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)?</i>
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**Impact 4.9-2**      **Implementation of the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new deficit in aquifer volume or a lowering of the local groundwater table level. This impact would be *less than significant*.**

Refer to Section 4.17 *Utilities*, Impact 4.17-4 for the analysis of potential impacts related to groundwater supply.

The majority of the Project site is undeveloped, consisting of naturally occurring forest. Dirt fire access roads traverse the Project site. The developed portions of the Project site include buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955. The various buildings associated with the amusement park have remained intact since the park's closure in 1998. After the park's closure, the parking lot on the north side of SR-18 (western portion of the project site) and the overflow parking lot south of SR-18 (southern portion of the Project site) provided a staging area for bark beetle infested lumber. Although the lumber has been removed from the Project site, however there are still wood chips throughout the meadow area north of the northern parking lot as well as the southern parking lot and proposed campground area.

The proposed Project is characterized by a hilly to semi-steep terrain covered by montane coniferous forest primarily consisting of Jeffery and sugar pines, with some incense cedar, fir and oak trees. As a result of the Western Pine Bark Beetle epidemic affecting the San Bernardino National Forest, several trees were removed from the Project site.

The Project site includes a grassland meadow found in the southwestern portion of the Project site, north of the existing parking lot. This plant community consists of native

and non-native plant species. This area has been subject to frequent human disturbances over the years, including the most recent storage of lumber. A pond is located in the northwest portion of the Project site that was excavated and filled with groundwater and stormwater runoff. Hooks Creek is the primary hydrogeomorphic feature found on-site and generally flows in a southwest to northeast direction. Hooks Creek originates near the southwestern corner of the property and extends along the western boundary of the site before it exits near the northeastern corner of the property. Hooks Creek extends through Hencks Meadow. Hencks Meadow is a natural, narrow meadow located northeast of the existing parking lot north of SR-18, along the property's eastern boundary. Downstream of the existing pond, Hooks Creek extends through a southern willow scrub plant community for approximately 1,200 feet before exiting the property.

As outlined in Section 3.0, *Project Description*, the proposed Project includes the redevelopment and re-use of the existing Santa's Village attraction. No buildings are proposed to be demolished. Improvements will also include the repair of hardscaping and landscaping. The asphalt pavement between the buildings will be replaced with concrete walkways and rock and other hardscaping to improve on site drainage. The attraction is located within and includes native forest trees and native shrubs. The proposed improvements include only minimal landscaping which may include native and drought tolerant shrubs and annuals/flower beds commonly used in landscaping. The site currently has minimal landscaping and will continue to have minimal landscaping as the site does not have a formal irrigation system. Existing forest trees are supported by natural rainfall and snow. The understory landscaping is also supported by natural rainfall and snow and is only supplemented by hand watering. The improvements at the existing Santa's Village attraction will not result in a substantial increase in impervious surfaces. Future improvements in the Amusement Park Zone will result in minor additions and associated impervious surfaces.

Proposed trails, including a proposed hiking trail, a bike trail, and a multi-use trail will be created by clearing the trail surface and brush or overhanging vegetation trimming. No trees will be removed for trail creation. The trail surfaces will generally be left in a "rough" state, unpaved.

The campground improvements will be installed in an area where the soils are disturbed and compacted and there is little natural vegetation, primarily only annual grasses. Installation of campground improvements will result in a small increase in impervious surfaces from installation of the roadway and the campsite parking pads.

Although the proposed improvements would result in small increases in impervious surfaces, the majority of the Project site will remain natural and pervious and would continue to provide infiltration of stormwater during rain events. Therefore, the Project is not anticipated to substantially interfere with groundwater recharge. Impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project 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 which would result in substantial erosion or siltation on- or offsite?</i>
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**Impact 4.9-3      Implementation of the Project would not 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 which would result in substantial erosion or siltation onsite or offsite. This impact would be *less than significant*.**

As outlined above, the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) has developed a Conservation Plan for Hencks Meadow. The Conservation Plan includes construction of a series of three water and sediment control basins between the northern parking lot and the pond. The existing small incised channel will be replaced with a rock lined waterway between and connecting the three water and sediment control basins and between the last basin to the existing pond. The water and sediment control basins will be constructed and maintained to form a sediment trap and water retention basin. The structures reduce water course and gully erosion, traps sediment, reduces and manages onsite and downstream runoff and improves downstream water quality. Installation will be according to approved NRCS plans and specifications for this practice. Vegetation and/or structures will be installed and maintained to stabilize and protect the streambank of the waterway connecting the basins

and the pond against scour and erosion. This prevents the loss of land or damage to facilities, reduces sedimentation and improves habitat for fish and wildlife. Installation will be according to approved NRCS plans and specifications for this practice. The Conservation Plan also outlines hedgerow planning for a living fence of shrubs, and or trees that will be established and maintained within, across or around a field. The Conservation Plan also outlines removal of obstructions and unwanted material (wood chips).

Project implementation is anticipated to result in minor modifications to the site topography and drainage within the development footprint and through Hencks Meadow to the existing pond; however, these modifications would largely replicate the existing condition. The water and sediment control basins, 10-foot wide rock lined water way, and replanted meadow will replace the existing small incised channel watercourse and disturbed meadow. These improvements will reduce erosion onsite and trap sediments and debris in the basins and greatly improve the water quality of stormwater runoff from the northern developed portions of the site before they enter Hooks Creek and downstream receiving water bodies. The basins will be maintained on an as needed basis to retain full capacity and function. Implementation of the proposed Project does not include any physicals modifications to Hooks Creek downstream of the existing pond; it will be retained in its natural state. With implementation of the drainage improvements included in the NRCS Conservation Plan, the proposed Project would not result in substantial erosion or siltation offsite and impacts would be less than significant.

As outlined in the *Hydrogeologic Evaluation of the Proposed SkyPark at Santa's Village, San Bernardino County, California Technical Memorandum*, there are no known active or inactive stream gages on Hooks Creek. Accordingly, the surface flow of the creek has not been documented. Area-weighted average annual precipitation in the Hooks Creek groundwater subunit is 36.5 inches/year, which is equivalent to approximately 3,585 acre-feet/year of annual precipitation over the entire 1,195-acre subunit. Average annual surface runoff in Hook's Creek subunit has been estimated to be approximately 960 acre-feet/year. It is assumed for the analysis that this is approximately equivalent to the long-term average annual flow in Hooks Creek.

Estimates of the maximum perennial yield of the Hooks Creek groundwater subunit, in which the Project wells are located, ranged from 120 to 300 acre-feet/year with an average of 226 acre-feet/year. Under normal operating conditions, the Project will rely on the two existing Project wells with an expected total water demand of 5,800,000 gallons per year or 17.8 acre-feet/year, which is below the low end range of estimated perennial yield of 120 acre-feet/year. Based on a comparison of proposed Project groundwater pumping (17.8 acre-feet/year) with the combination of perennial yield and surface runoff estimates (960 acre-feet/year or 1,080 acre-feet/year) shows that Project pumping could, on a long-term basis, reduce surface water flow in Hooks Creek by approximately 1.6 percent based on the assumption that the surface water and groundwater systems in Hooks Creek Subunit are in hydraulic continuity. On a short-term basis, the relative impact, if any, of groundwater pumping on surface water flow would be less during wet periods and more during dry periods.

Although the Project is not anticipated to significantly deplete available groundwater supplies, such that there would be substantial decrease in the surface water in Hooks Creek a groundwater and surface water monitoring plan will be developed to ensure this potential impact will be avoided. Mitigation Measure HYDRO-1 outlines the groundwater and surface water monitoring plan.

**MM HYDRO – 1**

Prior to pumping of groundwater to support operational use of SkyPark at Santa's Village, a groundwater and surface water monitoring plan shall be developed and implemented and shall include:

- Installation of a stream gage on Hooks Creek at a location downstream of the Project boundary.
- Baseline monitoring of groundwater levels and Hooks Creek streamflow rates before the Project improvements are constructed. Groundwater monitoring shall be conducted on a monthly basis. Stream gage measurements shall be collected continuously using recording equipment that is downloaded quarterly.

- On-going monitoring of groundwater levels and Hooks Creek streamflow rates to provide the data necessary to assess the role of Project pumping on changes in stream flow rates (if any).
- Baseline and on-going monitoring of groundwater levels and Hooks Creek streamflow rates will be submitted to the Lahontan Regional Water Quality Control Board on an annual basis.

With implementation of **MM HYDRO-1** potential indirect impacts to Hooks Creek are reduced to less than significant levels.

<i>Threshold:</i>	<i>Would the Project 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 runoff in a manner which would result in flooding onsite or offsite?</i>
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**Impact 4.9-4**      **Implementation of the Project would not 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 runoff in a manner which would result in flooding onsite or offsite. This impact would be less than significant.**

As outlined in the response to Impact 4.9-3, above, the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) has developed a Conservation Plan for Hencks Meadow. The Conservation Plan includes construction of a series of three water and sediment control basins between the northern parking lot and the pond. The existing small incised channel will be replaced with a rock lined waterway between and connecting the three water and sediment control basins and between the last basin to the existing pond. The water and sediment control basins will be constructed and maintained to form a sediment trap and water retention basin. The structures reduce water course and gully erosion, traps sediment, reduces and manages onsite and downstream runoff and improves downstream water quality. These improvements will generally replicate

the drainage pattern of the area between the northern parking lot and the pond. Implementation of the Project does not include improvements that would alter the course of Hooks Creek downstream of the pond. The Project site's large areas of pervious surfaces provide stormwater infiltration during rain events. The Project site does not include a substantial increase in the amount of impervious surfaces that would generate large amounts of stormwater runoff. The desiltation basins and the existing pond will retain stormwater flows and allow for some infiltration and a decrease in the rate and amount of surface runoff as compared to the existing condition. Therefore, implementation of the Project would not result in a substantial increase in stormwater runoff that would result in flooding on- or off-site. Less than significant impacts would occur.

<i>Threshold:</i>	<i>Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</i>
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**Impact 4.9-5**      **Implementation of the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. This impact would be *less than significant*.**

Also see the response to Impact 4.9-3, above. As outlined above, Project implementation is anticipated to result in minor modifications to the site topography and drainage however it would generally replicate the existing condition where stormwater runoff is conveyed to Hooks Creek located downstream of the pond. The Conservation Plan for Hencks Meadow includes construction of a series of three water and sediment control basins between the northern parking lot and the pond. The existing small incised channel will be replaced with a rock lined waterway between and connecting the three water and sediment control basins and between the last basin to the existing pond. The water and sediment control basins will be constructed and maintained to form a sediment trap and water retention basin. The structures reduce water course and gully erosion, traps sediment, reduces and manages onsite and downstream runoff and improves downstream water quality. Installation will be according to approved NRCS plans and

specifications for this practice. Vegetation and/or structures will be installed and maintained to stabilize and protect the streambank of the waterway connecting the basins and the pond against scour and erosion. This prevents the loss of land or damage to facilities, reduces sedimentation and improves habitat for fish and wildlife. The project site and adjacent downstream properties do not have improved stormwater drainage facilities. Implementation of the Project would not result in a substantial increase in stormwater runoff or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project otherwise substantially degrade water quality?</i>
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**Impact 4.9-6**      **Implementation of the Project would not otherwise substantially degrade water quality. This impact would be *less than significant*.**

Refer to the response to Impact 4.9-1, above. Impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.9-7**      **Implementation of the Project would not place housing within a 100-year flood hazard area as mapped on the County's FEMA Flood Zone Map. This impact would be *less than significant*.**

The Project site is not located within a 100-year flood hazard area, nor are any adjacent areas located within a 100-year flood hazard area. Additionally, the Project does not propose any new residential uses. Therefore, no housing would be placed within a 100-year flood hazard area with Project implementation. Impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.9-8**      **Implementation of the Project would not 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. This impact would be *less than significant*.**

The Project site is not located near, or adjacent to, a drainage feature (such as a river) that is retained with a levee, or a dam or reservoir that is retained by a dam. As mentioned in the response to Impact 4.9-7, above, the Project site is not located within a 100-year flood hazard area. Therefore, the Project site would not be subject to flooding, and consequently, would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a as a result of levee or dam failure would not exist. Impacts would be less than significant.

<i>Threshold:</i>	<i>Would the Project result in inundation by seiche, tsunami, or mudflow?</i>
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**Impact 4.9-9**      **Implementation of the Project would not result in inundation by seiche, tsunami, or mudflow. This impact would be *less than significant*.**

The Project site has no potential for significant inundation by seiche, tsunami, or mudflow. A seiche or tsunami can be described as a wave that is generated by an earthquake. The Project improvements are located on relatively flat to minor topography change. The Project site includes one pond. Although a large earthquake could create waves the pond does not hold enough water to create waves that could cause damage or harm existing structures, the forest or visitors. Additionally, the proposed Project improvements is located within a relatively flat area, which would not be subject to considerable mudflows. Impacts would be less than significant.

## CUMULATIVE IMPACTS

Implementation of the proposed Project and the NRCS Conservation Plan for Hencks Meadow would improve the water quality of stormwater runoff from the developed portions of the site to Hooks Creek. As discussed throughout this section, the Project does not have a significant and unavoidable impact on hydrology and water quality. In addition, the Project and other cumulative projects in the County would be required to comply with the above mentioned regulations pertinent to hydrology and water quality from construction activities and post-construction operations. Each future development project must comply with all applicable state laws, and each development project must address site-specific hydrology and water quality issues to County standards through implementation of recommendations outlined in site-specific hydrologic and water quality evaluations. Therefore, the proposed Project, in combination with cumulative projects, would have a less than significant cumulative impact on hydrology and water quality.

## **4.10 LAND USE**

This section describes the existing land use setting and potential land use impacts, as they pertain to implementation of the proposed Project. Information for this section was obtained from the *County of San Bernardino Code Title 8 (Land Use Plan, Land Use Zoning Districts, and Overlays)* and the *County of San Bernardino 2007 General Plan*.

### **ENVIRONMENTAL SETTING**

The project site is located on the north and south sides of State Route (SR-18), approximately one mile east of the intersection of SR-18 and Kuffel Canyon Road in the unincorporated San Bernardino Mountain community of Sky Forest. (Refer to Exhibit 1, *Regional Vicinity Map* & Exhibit 2, *Local Vicinity Map*.) As previously discussed in Chapter 3, the proposed project includes a General Plan Amendment to change the Official Land Use Districts of Lake Arrowhead/Special Development- Residential (LA/SD-RES) & Lake Arrowhead/Single Residential-14,000 Square Foot Minimum lot size (LA/RS-14M) to Lake Arrowhead/Rural Commercial (LA/CR). The project also includes a Conditional Use Permit to re-establish an Outdoor Commercial Entertainment Center which includes an Amusement Park, Campground, Restaurants, Bar, Wedding & Reception Facility, Retail, Trails, Meadow/Wetland Rehabilitation, Recreational Activities and other Accessory Uses on 152.92 Acres. The site is also located within the Fire Safety (FS1) Overlay and portions of the site on the south are located within the Moderate-High Geologic Hazard Overlay District.

The majority of the project site is an undeveloped area consisting of naturally occurring habitats. The undeveloped portion of the site includes dirt fire access roads and trails. The developed portions of the project site include existing buildings and infrastructure associated with the Santa's Village Amusement Park that opened in 1955. The various buildings associated with the amusement park have remained since the Park's closure in 1998.

Table 4.10-1 describes the existing conditions of the Project site. Table 4.10-2 describes the surrounding land uses in the vicinity of the Project site. Exhibit 4.10-1, *Parcel Map* of this EIR, illustrates the existing land use conditions of the Project site and vicinity.

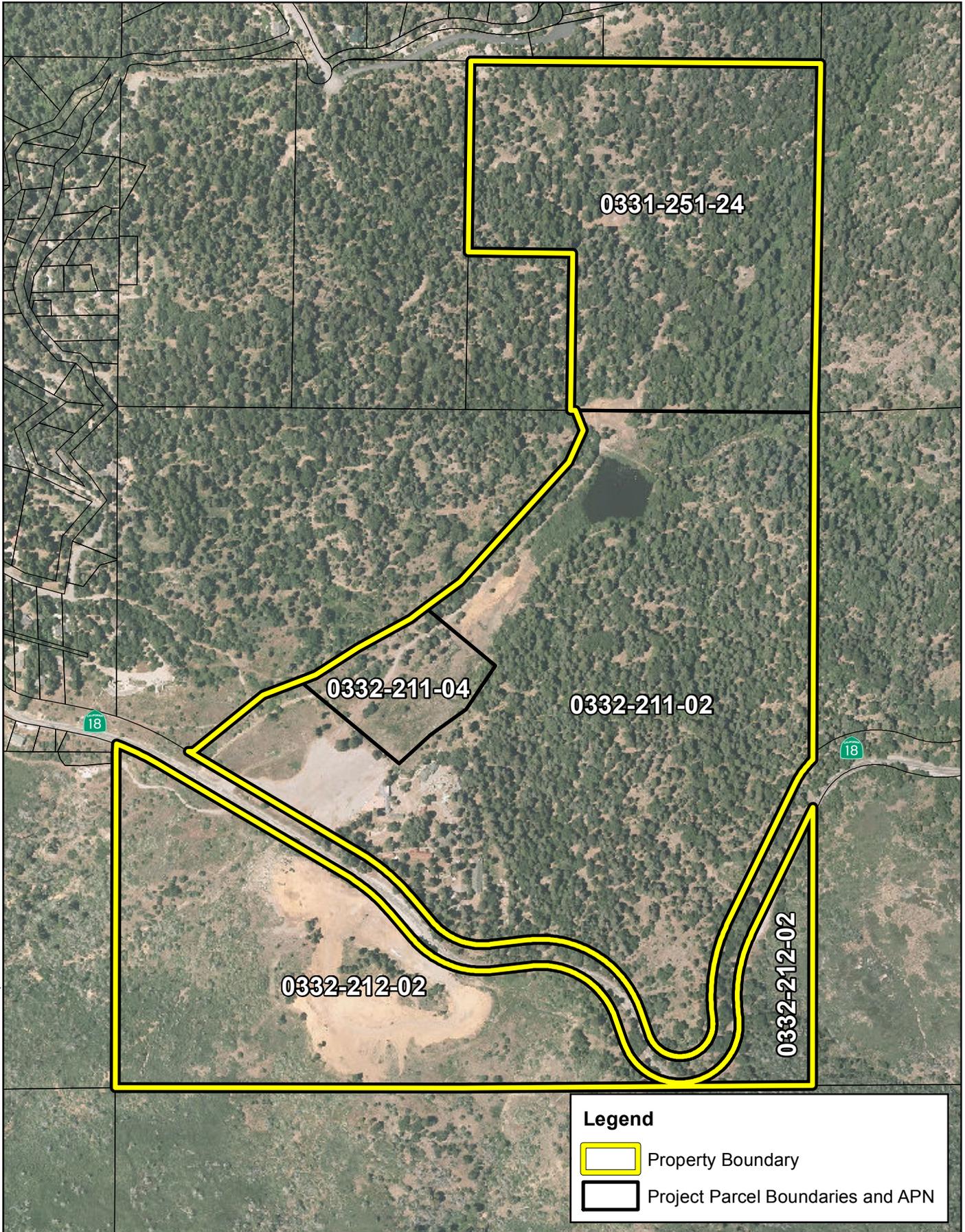
**Table 4.10-1: Existing Land Use Conditions**

Project Component	Existing Conditions
Santa’s Village	The project site contains nineteen original buildings that will be restored (re-used); parking lot, forest, pond, stream, and meadow
SkyPark Campground	Parking lot, undeveloped but disturbed land

**Table 4.10-2: Surrounding Land Use Conditions**

Project Components	Surrounding Existing Conditions
Santa’s Village	North: Undeveloped land/ former camp/ forest East: Single-family residential and undeveloped land/forest South: Undeveloped land/forest West: Undeveloped land/forest
SkyPark Campground	North: Santa’s Village/forest East: Undeveloped land/forest South: Undeveloped land /forest West: Undeveloped land/forest/ single-family residential

1/22/2016 JUN 11:48:49AMXD:ER04\_10-1 Parcel Map.mxd



SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT

# Parcel Map



Source: San Bernardino County, Eagle Aerial 2013

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**General Plan Land Use Zoning Districts**

Table 4.10-3 provides a summary of current land use districts by each major Project component.

**Table 4.10-3: Project Site General Plan Current Land Use Zoning Districts**

Project Component	General Plan Land Use Designation
Santa’s Village	Lake Arrowhead Special Development Residential, (LA/SD-RES) Lake Arrowhead Single Residential 14,000 Square Foot Minimum (LA/RS-14m)
SkyPark Campground	Lake Arrowhead Special Development Residential, (LA/SD-RES)

**Surrounding Land Use Zoning Districts**

Project components are surrounded by the following land use districts as shown on Table 4.10-4 which provides a summary of land use designations by each major Project component.

**Table 4.10-4: Surrounding General Plan Land Use Districts**

Project Components	General Plan Land Use Districts
Santa’s Village & SkyPark Campground	North: Lake Arrowhead Single Residential 14,000 Square Foot Minimum (LA/RS-14m) East: San Bernardino National Forest, Non County Jurisdiction South: San Bernardino National Forest, Non County Jurisdiction West: San Bernardino National Forest, Lake Arrowhead Single Residential 14,000 Square Foot Minimum LA/RS-14m) and Special Development-Residential (LA/SD-RES)

The Project site is located within the following Land Use Districts: Lake Arrowhead Single Residential 14,000 minimum (LA/RS–14m) and Lake Arrowhead Special Development Residential (LA/SD-RES). The LA/RS-14m Land Use District allows for the development of single residential units on individual lots with a minimum lot size of 14,000 square feet. The LA/SD-RES Land Use District allows for the combination of

residential, commercial, and/or manufacturing activities that maximizes the utilization of natural as well as man-made resources.

The proposed County of San Bernardino Land Use District is as follows: Lake Arrowhead/Rural Commercial (LA/CR). The (LA/CR) Land Use District provides sites in rural areas where a range of commercial services intermixed with residential uses can be established which are limited in scope and intensity and meet the need of the remote population and the traveling public.

## **REGULATORY FRAMEWORK**

### **FEDERAL**

No Federal plans, policies, or laws related to land use are applicable to the proposed Project under consideration.

### **STATE**

#### *CALIFORNIA PLANNING AND ZONING LAW*

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, sections 65000 to 66499.58. Under State planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

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*CALIFORNIA CODES*

The California Codes are 29 legal codes enacted by the California State Legislature, which together form the general statutory law of California. Unlike the United States Code or other U.S. state legal codes, they have never been consolidated into a single unified code. The official Codes are maintained by the California Legislative Counsel for the Legislature.

California Government Code Section 53091(d) states "Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency."

Furthermore, Section 539091(e) states "Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code, or electrical substations in an electrical transmission system that receives electricity at less than 100,000 volts. Zoning ordinances of a county or city shall apply to the location or construction of facilities for the storage or transmission of electrical energy by a local agency, if the zoning ordinances make provision for those facilities."

**LOCAL**

*SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS*

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The region encompasses a population exceeding 19 million persons in an area of more than 38,000 square miles. As the designated MPO, SCAG is mandated by the Federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. Additional mandates exist at the State level.

SCAG is responsible for the maintenance of a continuous, comprehensive, and coordinated planning process. SCAG is also responsible for the development of

demographic projections, as well as the development of integrated land use, housing, employment, transportation programs, measures, and strategies for portions of the *Air Quality Management Plan* (AQMP).

*SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY PLAN*

On April 4, 2012, SCAG's Regional Council adopted the landmark *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future*. The *2012-2035 RTP/SCS* provides goals for the long-range plan, identifies key transportation investments to address the growing population in the region and strategies to reduce traffic congestion and greenhouse gas emissions. The SCS is a new element of the long-range plan that demonstrates the integration of land use, transportation strategies, and transportation investments within the Plan. The RTP/SCS is updated every four years to reflect changes in economic trends, state and federal requirements, progress made on projects and adjustments for population and jobs. Transportation projects must be included in the RTP in order to qualify for federal and state funding.

*2012 RTP/SCS GOALS*

The *2012 RTP/SCS* links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. The goals included in the *2012 RTP/SCS* are meant to provide guidance for considering the proposed project within the context of regional goals and policies.

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. Specific RTP/SCS goals applicable to the proposed Project, as identified by SCAG, in their comment letter on the NOP are:

- RTP/SCS G1: Align the plan investments and policies with improving regional economic development and competitiveness;
- RTP/SCS G2: Maximize mobility and accessibility for all people and goods in the region;

- RTP/SCS G3: Ensure travel safety and reliability for all people and goods in the region;
- RTP/SCS G4: Preserve and ensure a sustainable regional transportation system;
- RTP/SCS G5: Maximize the productivity of our transportation system;
- RTP/SCS G6: Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking);
- RTP/SCS G7: Actively encourage and create incentives for energy efficiency, where possible;
- RTP/SCS G8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation;
- RTP/SCS G9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

*SAN BERNARDINO COUNTY GENERAL PLAN*

Land Use Element, Lake Arrowhead Community Plan

- |                  |  |
|------------------|--|
| <b>Objective</b> | To retain the existing resort-oriented mountain character of the community.  |
| <b>Objective</b> | To ensure that commercial and industrial development is compatible with the forest and mountain character and meets the needs of local residents and visitors. |
| <b>Objective</b> | To ensure the availability of convenient commercial services to residents and visitors to communities within the Lake Arrowhead Community Plan area.           |
| <b>LA/LU 1.1</b> | Require strict adherence to the land use policy map unless proposed changes are clearly demonstrated to be consistent with the community character.            |

**LA/LU 1.2** In recognition of the community's desire to preserve the rural character and protect the area's natural resources, projects that propose to increase the density of residential land uses or provide additional commercial land use districts or zones within the plan area should only be considered if the following findings can be made:

- a) That the change will be consistent with the community character. In determining consistency, the entire General Plan and all elements of the community plan shall be reviewed.
- b) That the change is compatible with surrounding uses, and will provide for a logical transition in the plan area's development. One way to accomplish this is to incorporate planned development concepts in the design of projects proposed in the area.
- c) That the change shall not degrade the level of services provided in the area, and that there is adequate infrastructure to serve the additional development that could occur as a result of the change. Densities should not be increased unless there are existing or assured services and infrastructure, including but not limited to water, wastewater, circulation, police, and fire, to accommodate the increased densities.

**LA/LU 2.2** In coordination with the community, develop site design standards for commercial development within the plan area to ensure that architectural detailing and signage are compatible with the mountain character of the community, to ensure that sites are designed to be more pedestrian-friendly, and to provide adequate parking and buffers between commercial and adjacent residential uses.

**LA/LU 2.4** Through the Land Use Services Conditional Use Permit process, all new commercial sites shall be reviewed to ensure

that the site is large enough to accommodate required parking and access.

**LA/LU 2.7** Commercial recreation and tourist facilities should be located, designed, and controlled to protect the residential-recreation character of the area. This can be accomplished by: Limiting commercial tourist facilities to Lake Arrowhead Village, Blue Jay and Cedar Glen along State Highway 18.

**LA/LU 2.9** Any development proposal for any part of the old Santa's Village site in the Rimforest area should be done as part of a master plan for development for the entire Santa's Village site, or subsequent to a County-approved master plan for the old Santa's Village site.

## IMPACT ANALYSIS AND MITIGATION MEASURES

### METHODOLOGY

An assessment of land use impacts was prepared by evaluating the existing land use on and around the Project site, using the General Plan as the primary guide.

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Plan may have a significant adverse impact related to land use if it would do any of the following:

- Physically divide an established community;
- 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;
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project physically divide an established community?</i>
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**Impact 4.10-1**      **Implementation of the Project would not physically divide an established community. This project would have *no impact*.**

The project would not physically divide an established community, because the project proposes to re-open existing land uses located at the Santa's Village site. The project site has historically been utilized as an amusement park and recreation area. The current site plan proposes the following uses: a Mountain Bike Park (Non-motorized vehicles), Wilderness Adventure/Zipline and Aerial Park, Forest Playground, Skybike Monorial, Fly Fishing Lake and Stream, Hiking and Tours, Santa's Village/Winter Attractions, Retail, Restaurants, Wedding Services, and a Campground Site. The project proposes no barriers that would physically divide the surrounding community. Therefore, no impacts would occur.

The SkyPark campground site is currently undeveloped. The project proposes to develop this site with up to 70 RV sites approximately 35 tent campsites. The SkyPark campground site is situated in an area that, if developed, would not physically divide an established community. Therefore, no impacts would occur.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.7-2**      **Implementation of the Project would not 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. Moreover, the Project would not conflict with any specific plan or local coastal programs because a specific**

**plan for the unincorporated community of Sky Forest has not been developed, while no local coastal program is applicable for the Project vicinity. This impact would be *less than significant*.**

The Project site is located within the following Land Use Districts: Lake Arrowhead Single Residential 14,000 minimum (LA/RS-14m) and Lake Arrowhead Special Development Residential (LA/SD-RES). The LA/RS-14m Land Use District allows for the development of single residential units on individual lots with a minimum lot size of 14,000 square feet. The LA/SD-RES Land Use District allows for the combination of residential, commercial, and/or manufacturing activities that maximizes the utilization of natural as well as man-made resources.

The proposed amendment to the County of San Bernardino Land Use District is from LA/RS-14m and LA/SD-RES to Lake Arrowhead/Rural Commercial (LA/CR). The (LA/CR) Land Use District provides sites in rural areas where a range of commercial services intermixed with residential uses can be established which are limited in scope and intensity and meet the need of the remote population and the traveling public. The LA/CR designation more accurately reflects the existing development of the site as well as the proposed amenities and activities for the site. The LA/CR designation is compatible with the surrounding community as the surrounding community is largely rural residential with low intensity commercial along SR-18 in Sky Forest and a mix of residential and commercial in Lake Arrowhead. The proposed Project provides recreational and commercial opportunities for visitors/tourist as well as residents in the mountain community. The proposed Project will also provide additional employment opportunities for residents in the mountain community. By attracting visitors/tourists to the area, the proposed Project is also anticipated to have a positive effect on the surrounding commercial establishments.

The proposed project also includes an amendment to the Lake Arrowhead Community Plan and the Circulation Element of the County of San Bernardino General Plan. An amendment to the Lake Arrowhead Community Plan Policy LA/CI 1.14 is proposed to provide additional clarification and specificity for implementation while retaining the initial intent of the policy.

Policy LA/CI 1.14 is currently in the Lake Arrowhead Community Plan as:

Complete Cumberland Road<sup>1</sup> from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.
- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

The proposed amendment to this policy is identified using underline for new text and strikethrough for removed text as follows:

~~Complete Cumberland Road from Cedar Glen to State Highway 18 near Santa's Village as a condition of development of the adjacent area~~ Require the design and construction of the extension of Cumberland Drive from Cedar Glen to State Highway 18 as a condition of development of any new residential subdivision extending from Cumberland Drive, Blue Ridge Drive, or Greenbriar Drive and ensure protection of the character of the surrounding area by the following:

- A. Require that Cumberland Road be designated as a County Scenic Route.
- B. Require that Cumberland Road be used primarily for residential and emergency traffic.
- C. Prohibit trucks that exceed 5 tons and vehicles pulling large trailers.

Currently Cumberland Drive is designated as Mountain Secondary (60-foot right-of-way) in the County's General Plan Circulation Element, as shown on Figure CI-2, *Major Roads and Freeways – Mountain Region*. The proposed amendment to the Circulation Element is to change the designation of Cumberland Drive from Mountain Secondary to Local Road (40-foot right-of-way). Cumberland Drive, as currently identified as a Secondary Street

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<sup>1</sup> In the Lake Arrowhead Community Plan Policy LA/CI 1/14, the roadway in reference is called Cumberland Road, however, on other maps (Google, Mapquest, etc.) it is referred to as Cumberland Drive. The proposed changes to Policy LA/CI will use Cumberland Drive.

in Figure CI-2, *Major Roads and Freeways – Mountain Region* of the Circulation Element, would be removed from this figure as local streets are not shown on it.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site. This right-of-way dedication is to be set aside as a potential future contribution for the extension of Cumberland Drive, if it is to be constructed in the future. The 20-foot right-of-way will follow the Edison and gas easement along the northwest boundary of the site as shown in Exhibit 3.0-8, *Utility Easements*.

The intent of the existing Lake Arrowhead Community Plan Policy LA/CI 1.14 is to ensure that any new development projects that will increase the number of residents in the Cedar Glen/Sky Forest area, will have adequate access to evacuation routes, including SR-173 and SR-18, in the event of a fire or other emergency. Currently Cumberland Drive only connects to SR-173 in the north and residents in the Cedar Glen area north and northwest of the Project site would need to utilize Cumberland Drive north to SR-173 to evacuate, further burdening Cumberland Drive and SR-173 in Cedar Glen and Lake Arrowhead. From SR-173 they could continue on SR-173 to evacuate to the north, or take SR-173 to the southwest to connect to SR-18 to evacuate to the southwest or southeast from the mountains. A future extension of Cumberland Drive from its existing southern terminus further south to connect with SR-18 would provide a shorter and more direct connection to SR-18 for existing and any new residents in the area north of the Project site, south to SR-18.

The proposed amendment to LA/CI 1.14 provides additional clarification on what type of development and more specificity on the location of development that this policy is to be applied. New residential development would result in an increase in the number of people that would need to utilize the local roadway network to access evacuation routes from the mountain in the event of a fire or other emergency. If one or more new residential developments were to be completed without the extension of Cumberland Drive to SR-18 to the south, it would result in additional residents having to drive north on Cumberland Drive to SR-173 to SR-18 as compared to direct access to SR-18 with the extension. The proposed Project would result in an increase in visitors to the mountains,

the number of which will vary depending on the time of year and the time of day, however, it will not result in an increase in the population residing in the mountains. The Project site currently has immediate access to SR-18, a key evacuation route, and no extension of Cumberland Drive is needed for the SkyPark visitors and employees to directly access SR-18. Therefore, the proposed amendment to Policy LA/CI 1.14 retains the initial intent of the policy and only adds additional clarification on the type of developments and specificity on the location of developments in which the policy is to be applied to.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site, as a potential future contribution for the extension of Cumberland Drive. The extension of Cumberland Drive is expected to be constructed at some time in the future. In order for the Cumberland Drive extension to occur the following would have to occur:

- Property owners to the north of the Project site submit applications to the County for planned residential development;
- An alignment study is completed and reviewed and approved by the County Public Works Department to identify the exact location of the roadway;
- Future residential development or developments north of the Project site design and construct the extension of Cumberland Drive to SR-18 as a condition of approval, in accordance with the location identified in the alignment study.

As such, it cannot be determined at this time if the dedication as a part of the proposed Project will actually be used for an extension of Cumberland Drive. However, the dedication of right-of-way within the Project site ensures that the property will be retained for that purpose, if the road is to be constructed and in that location. Therefore, the proposed Project will not conflict with the potential future implementation of Lake Arrowhead Community Plan Policy LA/CI 1.14. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities.

The project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Refer to Table 4.10-5 for a more detail regarding land use policy consistency for the Project area.

**Table 4.10-5: Land Use Policy Consistency Analysis**

Applicable Land Use Plan	Consistency Analysis
<b>County of San Bernardino General Plan (2007)</b>	
<p><b>Objective</b></p> <p>To retain the existing resort-oriented mountain character of the community.</p>	<p>Consistent: The expansion and renovation/re-opening of the existing Santa’s Village and future Skypark Campground is consistent with the stated objective of taking advantage of retaining the existing resort-oriented character of the community which Santa’s Village has been consistent with since its inception in 1955. The expansion/renovation of the Project site will increase recreational opportunities for residents and visitors/vacationers of the mountain community.</p>
<p><b>Objective</b></p> <p>To ensure that commercial and industrial development is compatible with the forest and mountain character and meets the needs of local residents and visitors.</p>	<p>Consistent: The Project would be compatible with the forest and mountain character while meeting the needs of local residents and visitors since this is an existing site that has formed part of the community’s character for the past six (6) decades. Both resident and visitor’s experience will be enhanced through the consistent compatibility the project site will have with its natural surroundings.</p>
<p><b>Objective</b></p> <p>To ensure the availability of convenient commercial services to residents and visitors to communities within the Lake Arrowhead Community Plan area.</p>	<p>Consistent: Commercial services found in the proposed project site such as: a full service restaurant, snack bar, pub, bakery/candy store, wedding chapel, and full service wedding event center will be easily available and convenient for the use of residents and visitor within the Lake Arrowhead Community Plan area.</p>
<p><b>Policy LA/LU 1.1</b></p>	<p>Consistent:</p>

Applicable Land Use Plan	Consistency Analysis
<p>Require strict adherence to the land use policy map unless proposed changes are clearly demonstrated to be consistent with the community character.</p>	<p>The existing community contains mixed rural and commercial uses along State Highway 18. The proposed Rural Commercial Land Use is consistent with the community character because it includes commercial and recreational uses along SR-18.</p>
<p><b>Policy LA/LU 1.2</b></p> <p>In recognition of the community’s desire to preserve the rural character and protect the area’s natural resources, projects that propose to increase the density of residential land uses or provide additional commercial land use districts or zones within the plan area should only be considered if the following findings can be made:</p> <p>A. That the change will be consistent with the community character. In determining consistency, the entire General Plan and all elements of the community plan shall be reviewed.</p> <p>B. That the change is compatible with surrounding uses, and will provide for a logical transition in the plan area’s development. One way to accomplish this is to incorporate planned development concepts in the design of projects proposed in the area.</p> <p>C. That the change shall not degrade the level of services provided in the area, and that there is adequate infrastructure to serve the additional development that could occur as a result of the change. Densities should not be increased unless there are existing or assured services and infrastructure, including but not limited to water, wastewater, circulation, police, and fire, to accommodate the increased densities.</p>	<p>Consistent:</p> <p>As discussed above, the Project areas that will provide commercial opportunities for the use of the community are consistent with the community’s character since no physical changes will be made to existing buildings where these services will be provided.</p> <p>A logical transition to and from the Project site and adjacent land uses will remain given that Santa’s Village existing buildings would be rehabilitated but not altered.</p> <p>The change would not degrade the level of services provided in the area. On the contrary, the project includes the removal of waste from the site and restoration of functions of the upstream portions with improvements and restoration of Hook Creek. The site has adequate existing infrastructure and additional infrastructure is not required. Density is not forecast to increase since a residential aspect is not part of the project.</p>

Applicable Land Use Plan	Consistency Analysis
<p><b>Policy LA/LU 2.2</b></p> <p>In coordination with the community, develop site design standards for commercial development within the plan area to ensure that architectural detailing and signage are compatible with the mountain character of the community, to ensure that sites are designed to be more pedestrian-friendly, and to provide adequate parking and buffers between commercial and adjacent residential uses.</p>	<p>Consistent:</p> <p>Project Offsite improvements would be included with the proposed project and would involve new dedicated left turn lanes, pedestrian access of one of the following, crosswalk, bridge or tunnel and two new traffic signals to be located on SR -18, at SR-173 and Daley Canyon Road in existing right-of-ways (ROWs). SR- 18 would be widened to accommodate two left-turn lanes into the driveways of the campground site and the Santa’s Village site as vehicles approach from both directions of SR-18. Trees would be trimmed to provide improved vision if the trees surrounding the driveways conflict with vehicles safely exiting from the proposed project driveways. The at-grade pedestrian crosswalk would traverse SR-18 at the proposed project driveways or a pedestrian bridge or tunnel will direct visitors north and south across SR-18.</p>
<p><b>Policy LA/LU 2.4</b></p> <p>Through the Land Use Services Conditional Use Permit process, all new commercial sites shall be reviewed to ensure that the site is large enough to accommodate required parking and access.</p>	<p>Consistent:</p> <p>Consistent with the land Use Services Conditional Use Permit process, 575 car parking spaces are proposed: 275 located in the primary parking lot and 300 in a secondary overflow lot located south across SR-18. A pedestrian signal, tunnel or bridge are options to aid in getting visitors from the overflow parking area across Highway 18 to the project site in a safe manner.</p>
<p><b>Policy LA/LU 2.7</b></p> <p>Commercial recreation and tourist facilities should be located, designed, and controlled to protect the residential-recreation character of the area. This can be accomplished by: Limiting commercial tourist facilities to Lake Arrowhead Village, Blue Jay and Cedar Glen along State Highway 18.</p>	<p>Consistent:</p> <p>The Project is not a new commercial recreation or tourist facility to the area. Santa’s Village has formed part of the community’s character for six (6) decades.</p>
<p><b>Policy LA/LU 2.9</b></p>	<p>Consistent:</p>

Applicable Land Use Plan	Consistency Analysis
Any development proposal for any part of the old Santa's Village site in the Rimforest area should be done as part of a master plan for development for the entire Santa's Village site, or subsequent to a County-approved master plan for the old Santa's Village site.	The Project is forecast to re-use the entire Santa’s Village site and additional land south SR-18 for the Skypark campground which are consistent with the County-approved master plan for the old Santa’s Village site.

**Table 4.10-6: SCAG 2012 RTP/SCS Consistency Analysis**

SCAG 2012 RTP/SCS GOALS		
Goal	Analysis	
<b>RTP/SCS G1:</b> Align the plan investments and policies with improving regional economic development and competitiveness	Consistent: The Proposed project is forecast to provide regional economic development by providing jobs and competitiveness by providing an additional opportunity for recreation and tourism.	
<b>RTP/SCS G2:</b> Maximize mobility and accessibility for all people and goods in the region	Consistent: Direct driveway access off of SR-18 provides accessibility for all people and goods in the region.	
<b>RTP/SCS G3:</b> Ensure travel safety and reliability for all people and goods in the region	Consistent: Improvements to the entrance will be made in accordance with Caltrans recommendations to ensure safe travel along SR-18.	
<b>RTP/SCS G4:</b> Preserve and ensure a sustainable regional transportation system	Consistent: Improvements to the entrance will be made in accordance with Caltrans recommendations in order to preserve SR-18, a part of the regional transportation system.	
<b>RTP/SCS G5:</b> Maximize the productivity of our transportation system	Consistent: Improvements to the entrance will be made in accordance with Caltrans recommendations in order to maximize productivity of SR-18, a part of the regional transportation system.	

SCAG 2012 RTP/SCS GOALS	
Goal	Analysis
<b>RTP/SCS G6:</b> Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking)	Consistent: As the Project will generate jobs it will likely reduce trips down to the valley for jobs and associated vehicle emissions.
<b>RTP/SCS G7:</b> Actively encourage and create incentives for energy efficiency, where possible.	Consistent: 4 vehicle charging stations will be provided in the parking lot.
<b>RTP/SCS G8:</b> Encourage land use and growth patterns that facilitate transit and non-motorized transportation	Consistent: The proposed Project would encourage non-motorized transportation within its facilities given that the amusement park and campground would encourage pedestrian activity.
<b>RTP/SCS G9:</b> Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies	Consistent: Improvements to the entrance will be made in accordance with Caltrans recommendations in order to preserve and ensure safe travel along SR-18.

The project is consistent with all applicable land use policies and regulations of the County Development Code and General Plan. It should also be noted that as a project design feature, the Project would include a deed restriction that would specifically exclude the development of any additional residential housing. Should the Project site ever be sold and residential development proposed, separate Project approval and separate environmental analysis would be required and conducted at that time. Additionally, should the Project ever propose to develop any additional uses outside what is approved as part of the current application (and described in detail in Chapter 3.0, *Project Description* of this EIR, additional entitlements, including additional CEQA analysis, would be conducted at that time.

<i>Threshold:</i>	<i>Would the Project conflict with any applicable habitat conservation plan or natural community conservation plan?</i>
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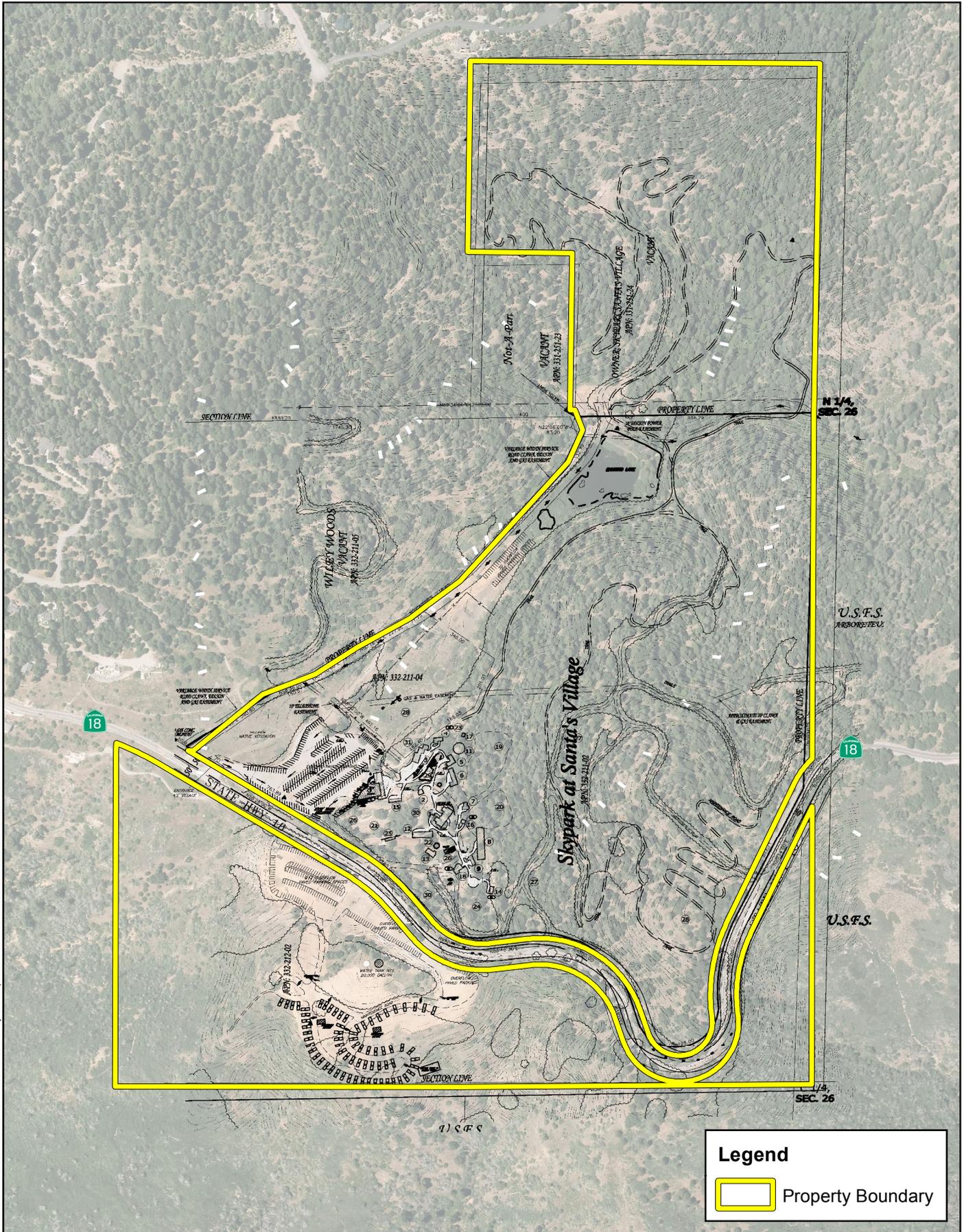
**Impact 4.10-3      Implementation of the Project would not conflict with any applicable habitat conservation plan or natural community conservation plan. This project would have *no impact*.**

The project would not conflict with any applicable habitat conservation plan or natural community conservation plan, because there is no habitat conservation plan or natural community conservation plan for the project site or the area surrounding the project site.

### **CUMULATIVE IMPACTS**

As discussed throughout this section, the Project would not have a significant and unavoidable impact on land use. The renovation of the existing Santa's Village site, along with its expansion into areas south of SR-18 that are currently vacant, would not have significant cumulative impacts on the Project site or the surrounding area. The implementation of the proposed Project would improve the current site which would result in a beneficial impact. The proposed Project is compatible with the vision, objectives, and policies of the Lake Arrowhead Community Plan Areas of the GP as it maintains a resort-like oriented mountain character of the community as it will preserve original project site structures that have formed part of the community since its inception while also a large portion of the proposed project would be rural open space for the Skypark campground. The re-opening of the Santa's Village attraction, as well as the added recreational features will provide another recreation option for those visiting and vacationing in the mountains.

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**Michael Baker**  
INTERNATIONAL



Source: San Bernardino County, Eagle Aerial 2013

SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT

**Project Footprint**

Exhibit 4.10-2

## **4.11 MINERAL RESOURCES**

This section discusses the existing mineral resources as well as the Proposed Project's potential effects on the site and its surrounding area. Information for this section was obtained from the following sources:

- *Mineral Land Classification Map of a Part of Southwestern San Bernardino County, California, 1995*
- *San Bernardino County General Plan, 2007.*

## **ENVIRONMENTAL SETTING**

The existing site is disturbed and developed with existing buildings and Santa's Village attractions as well as an existing paved parking lot north of SR-18 and an additional parking lot south of SR-18. The campsite area is partially disturbed due to forest fires and storage of lumber. The Project site north of the Santa's Village attraction and north of the existing pond is forested and relatively undisturbed.

The California Geological Survey has a Mineral Classification Map in which Mineral Resource Zones (MRZ) are numbered 1 through 4 and utilized to determine areas for the presence of valuable mineral deposits. The entire Project site is located in MRZ-4 as designated by the California Geological Survey. The MRZ-4 category includes areas where no known occurrences of mineral resources exist.

## **REGULATORY FRAMEWORK**

### **STATE**

#### *THE SURFACE MINING AND RECLAMATION ACT (SMARA)*

SMARA was passed in 1975 to make certain mined lands return to usable conditions while also encouraging the production, conservation, and protection of the mineral resources throughout the state. As required by the SMARA, mineral deposits significant to the state and its regions are researched, reported, and designated by the State

Geologist. The California Geological Survey has a Mineral Classification Map in which Mineral Resource Zones (MRZ) are numbered 1 through 4 and utilized to determine areas for the presence of valuable mineral deposits. The MRZ are designated as follows:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates significant mineral deposits are present or where it is judged that a high likelihood exists for their presence.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ.

## LOCAL

### *SAN BERNARDINO COUNTY GENERAL PLAN*

#### **Goal:**

- CO 7.** The County will protect the current and future extraction of mineral resources that are important to the County's economy while minimizing impacts of this use on the public and the environment.

#### **Policies:**

- CO 7.1** In areas containing valuable mineral resources, establish and implement conditions, criteria, and standards that are designed to protect the access to, and economic use of, these resources, provided that the mineral extraction does not result in significant adverse environmental effects and that open space uses have been considered for the area once mining operations cease.

### Programs

1. Solicit, coordinate, and acknowledge lands designated by the State Mining and Geology Board and classified by the state Geologist.
2. Incorporate the mineral classification or designation information, including the maps, when they are completed by the State Mining and Geology Board and the Division of Mines and Geology, including new and updated information.
3. Recognize and protect areas within San Bernardino County that show or have proven to have significant mineral resources and protect their access.
4. Maintain and coordinate files and records to be kept with the Land Use Services Department.

### CO 7.2

Implement the state Mineral Resource Zone (MRZ) designations to establish a system that identifies mineral potential and economically viable reserves.

- a. MRZ-1: Adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This designation will be applied where well-developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is nil or slight.
- b. MRZ-2: Adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. This designation will be applied to known mineral deposits or where well- developed lines of reasoning, based

upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.

- c. MRZ-3: Contains deposits whose significance cannot be evaluated from available data.
- d. MRZ-4: Available information is inadequate for assignment to any other MRZ zone.
- e. SZ: Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance will be classified in this zone.
- f. IRA: San Bernardino County or State Division of Mines and Geology Identified Areas where adequate production and information indicates that significant minerals are present.

**CO 7.3** Mining operators/owners will provide buffers between mineral resources (including access routes) and abutting incompatible land uses. New mineral and non-mineral development in these zones will be designed and reviewed according to the compatibility criteria specified in this policy.

**CO 7.4** Review land development and mining proposals near potentially incompatible land uses with the goal of achieving land use compatibility between potentially incompatible uses.

**CO 7.5** Protect existing mining access routes by giving them priority over proposed alterations to the land, or by accommodating the mining operations with as good or better alternate access, provided the alternate access does not adversely impact proposed open space areas or trail alignment.

- CO 7.6** Provide for the monitoring of mining operations for compliance with the established operating guidelines, conditions of approval and the reclamation plan.

## THRESHOLDS OF SIGNIFICANCE

Significant impacts relative to mineral resources are evaluated in this section based on Appendix G of the CEQA Guidelines. Implementation of the proposed project may have a significant adverse impact if it would do any of the following:

- 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?
- 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?

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Result in the loss of availability of a known mineral source that would be of value to the region and the residents of the state?</i>
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**Impact 4.11-1** **Implementation of the Project would not result in the loss of availability of a known mineral source that would be of value to the region and the residents of the state. No impact would be anticipated, thus it would be *less than significant*.**

The California Department of Conservation Mineral Land Classification Map identifies that the SkyPark proposed Project is located in the Mineral Resource Zone 4 (MRZ-4). The MRZ-4 category includes areas where no known occurrences of mineral resources exist. However, if mineral resources were to exist on site, there would be no anticipation in the loss of those existing minerals from implementation of the proposed Project. The land on site is significantly disturbed from previous land use (i.e. previous Santa's Village attraction). In addition, all of the existing facilities are proposed to being rehabilitated, thus, there would be no substantial new development on the northern portion (north of SR-18) of the site. The proposed campground site (south of SR-18) would anticipate minor grading and the construction of a restroom facility on disturbed land. Therefore, the SkyPark project would not result in the loss of availability of a possible existing

mineral resource that would be of value to the region and the residents of the state because the Project will not result in substantial new development. No impact would occur.

*Threshold: 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?*

**Impact 4.11-2 Implementation of the Project would not 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. This impact would be *less than significant*.**

SkyPark would not result in the loss of availability of a locally important mineral resource recovery site. The SkyPark site is located within the Sky Forest community of Lake Arrowhead. Currently, Sky Forest and Lake Arrowhead do not include a delineated mineral resource recovery site on a local general plan, specific plan or other land use plan. Therefore, since the Project site is not located on an important mineral resource recovery site, no impact would occur.

## CUMULATIVE IMPACTS

The proposed Project is not expected to result in the loss of a mineral resource or mineral resource recovery site. Consequently, it is not expected to contribute to cumulative impacts to mineral resources.

## **4.12 NOISE**

The purpose of this section is to evaluate noise source impacts to onsite and surrounding land uses as a result of Project implementation. This section evaluates short-term construction-related impacts, as well as long-term conditions. Mitigation measures are also recommended to avoid or lessen the Project's noise impacts. For the purposes of mobile source noise modeling and contour distribution, information contained in the *Traffic Impact Study for the Skypark at Santa's Village Project (Traffic Impact Analysis)* prepared by Gibson Transportation Consulting, Inc. (May 2016) and included in Appendix I (Traffic Impact Analysis), was used. Traffic noise modeling data can be found in Appendix H (Noise Data).

## **ENVIRONMENTAL 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 provided in Table 4.12-1, *Sound Levels and Human Response*.

**Table 4.12-1: Sound Levels and Human Response**

Noise Source	dB(A) Noise Level	Response
	150	
Carrier Jet Operation	140	Harmfully Loud
	130	Pain Threshold
Jet Takeoff (200 ft.) Discotheque	120	
Unmuffled Motorcycle Auto Horn (3 ft.) Rock'n Roll Band Riveting Machine	110	Maximum Vocal Effort Physical Discomfort
Loud Power Mower Jet Takeoff (2000 ft.) Garbage Truck	100	Very Annoying Hearing Damage (Steady 8-Hour Exposure)
Heavy Truck (50 ft.) Pneumatic Drill (50 ft.)	90	
Alarm Clock Freight Train (50 ft.) Vacuum Cleaner (10 ft.)	80	Annoying
Freeway Traffic (50 ft.)	70	Telephone Use Difficult
Dishwashers Air Conditioning Unit (20 ft.)	60	Intrusive
Light Auto Traffic (100 ft.)	50	Quiet
Living Room Bedroom	40	
Library Soft Whisper (15 ft.)	30	Very Quiet
Broadcasting Studio	20	Just Audible
	10	Threshold of Hearing

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.

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 4.12-2, *Noise Descriptors*.

**Table 4.12-2: 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, <i>Handbook of Noise Control</i> , 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 residential units, 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. The nearest sensitive uses are residential uses located approximately 675 feet to the northwest of the Project boundary, and 735 feet to the west (to the south of State Route 18 (SR-18)). In addition, the Saint Richards Episcopal Church is located approximately 0.33-mile to the northwest of the site.

### **MOBILE SOURCES**

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 extent of noise impacts associated with freeways and arterial roadways depends on traffic volume, speed, and other factors. According to the California Department of Transportation's (Caltrans) 2014 Traffic Counts, SR-18 in the vicinity of the Project site (east of Kuffel Canyon Road) has an Average Daily Traffic (ADT) volume of 11,500. Using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108), existing traffic noise levels are approximately 62.1 dBA CNEL at 100 feet from the roadway centerline. The FHWA's RD-77-108 model uses several parameters to calculate vehicular traffic noise, and include the roadway cross-section (such as the number of

lanes), roadway width, ADTs, 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.

## **STATIONARY NOISE SOURCES**

The Project area generally consists of woodland areas and residential uses. The primary sources of stationary noise in the Project vicinity are urban-related activities (e.g. mechanical equipment, conversations, and recreational areas). The noise associated with these sources may represent a single-event or a continuous occurrence.

## **REGULATORY FRAMEWORK**

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.

### **FEDERAL**

The Federal Noise Control Act of 1972 established programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, the U.S. Environmental Protection Agency (EPA) administrators determined that subjective issues such as noise would be better addressed at more local levels of government, thereby allowing more individualized control for specific issues by designated Federal, State, and local government agencies. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to specific federal agencies, and state and local governments. However, noise control guidelines and regulations contained in the EPA rulings in prior years remain in place. No Federal noise regulations are directly applicable to the proposed Project.

## STATE

### *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 and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. 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<sup>1</sup>. 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.

### *COUNTY OF SAN BERNARDINO GENERAL PLAN*

The Noise Element of the *County of San Bernardino General Plan* guides the development of noise regulations. The purpose of the Noise Element is to limit the exposure of the

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<sup>1</sup> A “conditionally acceptable” designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a “normally acceptable” designation indicates that standard construction can occur with no special noise reduction requirements.

community to excessive noise levels. The Noise Element goals and policies applicable to the proposed Project are identified below.

### Noise Element

#### **Goal:**

- N 1** The County will abate and avoid excessive noise exposures through noise mitigation measures incorporated into the design of new noise-generating and new noise-sensitive land uses, while protecting areas within the County where the present noise environment is within acceptable limits.

#### **Policies**

- N 1.3** When industrial, commercial, or other land uses, including locally regulated noise sources, are proposed for areas containing noise sensitive land uses, noise levels generated by the proposed use will not exceed the performance standards of Table N-2<sup>2</sup> within outdoor activity areas. If outdoor activity areas have not yet been determined, noise levels shall not exceed the performance standards listed in Chapter 83.01 of the Development Code at the boundary of areas planned or zoned for residential or other noise-sensitive land uses.
- N 1.4** Enforce the state noise insulation standards (California Administrative Code, Title 24) and Chapter 35 of the California Building Code (CBC).<sup>3</sup>

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<sup>2</sup> Refer to Table 4.10-3 in this document for the County's noise standards referenced in General Plan Policy N 1.3.

<sup>3</sup> Title 24 of the California Code of Regulations requires that an acoustical analysis be prepared for all new developments of multi-family dwellings, condominiums, hotels, and motels proposed for areas within the 60 dB Ldn (or CNEL) contour of a major noise source for the purpose of documenting that an acceptable interior noise level of 45 dB Ldn (or CNEL) or below will be achieved with the windows and doors closed. UBC Chapter 35 requires that common wall and floor/ceiling assemblies within multi-family dwellings comply with minimum standards for the transmission of airborne sound and structure-borne impact noise.

- N 1.5** Limit truck traffic in residential and commercial areas to designated truck routes; limit construction, delivery, and through-truck traffic to designated routes; and distribute maps of approved truck routes to County traffic officers.
- N 1.6** Enforce the hourly noise-level performance standards for stationary and other locally regulated sources, such as industrial, recreational, and construction activities as well as mechanical and electrical equipment.
- N 1.7** Prevent incompatible land uses, by reason of excessive noise levels, from occurring in the future.

**Goal:**

- N 2** The County will strive to preserve and maintain the quiet environment of mountain, desert and other rural areas.

**Policy:**

- N 2.2** The County will continue to work aggressively with federal agencies, including the branches of the military, the U.S. Forest Service, BLM, and other agencies to identify and work cooperatively to reduce potential conflicts arising from noise generated on federal lands and facilities affecting nearby land uses in unincorporated County areas.

**Goal:**

- M/N-1** The County will strive to preserve and maintain the quiet environment of the Mountain Region.

**Policy:**

- M/N 1.1** Encourage and support strict enforcement of vehicle code regulations to reduce vehicular noise in the mountain communities.

COUNTY OF SAN BERNARDINO MUNICIPAL CODE

Chapter 83.01, Section 83.01.080, *Noise* of the County’s Municipal Code establishes standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses. The following sections of the Municipal Code are applicable to the proposed Project.

§ 83.01.080 NOISE

(c) Noise Standards for Stationary Noise Sources.

(1) Noise Standards. Table 4.10-3, *Noise Standards for Stationary Noise Sources*: (Table 83-2 Noise Standards for Stationary Noise Sources) describes the noise standard for emanations from a stationary noise source, as it affects adjacent properties:

(2) Noise Limit Categories. No person shall operate or cause to be operated a source of sound at a location or allow the creation of noise on property owned, leased, occupied, or otherwise controlled by the person, which causes the noise level, when measured on another property, either incorporated or unincorporated, to exceed any one of the following:

**Table 4.12-3: Noise Standards for Stationary Noise Sources**

Affected Land Uses ( <i>Receiving Noise</i> )	7:00 a.m. – 10:00 p.m. $L_{eq}$	10:00 p.m. – 7 :00 a.m. $L_{eq}$
Residential	55 dB(A)	45 dB(A)
Professional Services	55 dB(A)	55 dB(A)
Other Commercial	60 dB(A)	60 dB(A)
Industrial	70 dB(A)	70 dB(A)

Notes:  
 $L_{eq}$  = (Equivalent Energy Level). The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period, typically one, eight or 24 hours.  
 dB(A) = (A-weighted Sound Pressure Level). The sound pressure level, in decibels, as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound, placing greater emphasis on those frequencies within the sensitivity range of the human ear.  
 $L_{dn}$  = (Day-Night Noise Level). The average equivalent A-weighted sound level during a 24-hour day obtained by adding 10 decibels to the hourly noise levels measured during the night (from 10:00 p.m. to 7:00 a.m.). In this way  $L_{dn}$  takes into account the lower tolerance of people for noise during nighttime periods.  
 Source: County of San Bernardino Municipal Code, Section 83.01.080, Table 83-2.

- (A) The noise standard for the receiving land use as specified in Subdivision (b) (Noise-Impacted Areas), above, for a cumulative period of more than 30 minutes in any hour.
  - (B) The noise standard plus five dB(A) for a cumulative period of more than 15 minutes in any hour.
  - (C) The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour.
  - (D) The noise standard plus 15 dB(A) for a cumulative period of more than one minute in any hour.
  - (E) The noise standard plus 20 dB(A) for any period of time.
- (d) Noise Standards for Adjacent Mobile Noise Sources. Noise from mobile sources may affect adjacent properties adversely. When it does, the noise shall be mitigated for any new development to a level that shall not exceed the standards described in the following Table 4.12-4, *Noise Standards for Adjacent Mobile Noise Sources* (Table 83-3 Noise Standards for Adjacent Mobile Noise Sources).

**Table 4.12-4: Noise Standards for Adjacent Mobile Noise Sources**

Land Use		L <sub>dn</sub> (or CNEL) dB(A) <sup>4</sup>	
Categories	Uses	Interior <sup>1</sup>	Exterior <sup>2</sup>
Residential	Single and multi-family, duplex, mobile homes	45	60 <sup>3</sup>
Commercial	Hotel, motel, transient housing	45	60 <sup>3</sup>
	Commercial retail, bank, restaurant	50	N/A
	Office building, research and development, professional offices	45	65
	Amphitheater, concert hall, auditorium, movie theater	45	N/A
Institutional/Public	Hospital, nursing home, school classroom, religious institution, library	45	65
Open Space	Park	N/A	65

Notes:

1. The indoor environment shall exclude bathrooms, kitchens, toilets, closets and corridors.
2. The outdoor environment shall be limited to:
  - Hospital/office building patios
  - Hotel and motel recreation areas
  - Mobile home parks
  - Multi-family private patios or balconies
  - Park picnic areas
  - Private yard of single-family dwellings
  - School playgrounds
3. An exterior noise level of up to 65 dB(A) (or CNEL) shall be allowed provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology, and interior noise exposure does not exceed 45 dB(A) (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level shall necessitate the use of air conditioning or mechanical ventilation.
4. CNEL = (Community Noise Equivalent Level). The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m.

Source: County of San Bernardino Municipal Code, Section 83.01.080, Table 83-3.

(e) Increases in Allowable Noise Levels. If the measured ambient level exceeds any of the first four noise limit categories in Subdivision (d)(2), above, the allowable noise exposure standard shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category in Subdivision (d)(2), above, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

(f) Reductions in Allowable Noise Levels. If the alleged offense consists entirely of impact noise or simple tone noise, each of the noise levels in Table 83-2 (Noise Standards for Stationary Noise Sources) shall be reduced by five dB(A).

(g) Exempt Noise. The following sources of noise shall be exempt from the regulations of this Section:

- (1) Motor vehicles not under the control of the commercial or industrial use.
- (2) Emergency equipment, vehicles, and devices.
- (3) Temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

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§ 83.01.090 VIBRATION

- (a) Vibration Standard. No ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths inches per second measured at or beyond the lot line.
- (b) Vibration Measurement. Vibration velocity shall be measured with a seismograph or other instrument capable of measuring and recording displacement and frequency, particle velocity, or acceleration. Readings shall be made at points of maximum vibration along any lot line next to a parcel within a residential, commercial and industrial land use zoning district.
- (c) Exempt Vibrations. The following sources of vibration shall be exempt from the regulations of this Section.
- (1) Motor vehicles not under the control of the subject use.
  - (2) Temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

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## IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part, on State *CEQA Guidelines* Appendix G. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact related to noise and vibration if it would do any of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- 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;
- 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.

## NOISE IMPACT CRITERIA

### *SIGNIFICANCE OF CHANGES IN TRAFFIC NOISE LEVELS*

An offsite traffic noise impact typically occurs when there is a discernible 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 discernible difference.

As traffic noise levels at sensitive uses likely approach or exceed the 60 CNEL standard (refer to Table 4.10-4), a 3.0 dB increase as a result of the Project is used as the increase threshold for the Project. Therefore, the Project would result in a significant noise impact when 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 STATIONARY NOISE LEVELS*

The Project would normally have a significant noise impact if it would:

- Exceed the stationary source noise criteria for the County of San Bernardino as identified in Table 4.10-3.

### *SIGNIFICANCE OF CHANGES IN CUMULATIVE TRAFFIC NOISE LEVELS*

A 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. 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" scenario causes a 1 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 and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Based on these significance thresholds and criteria, the proposed 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.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</i>
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### SHORT-TERM CONSTRUCTION NOISE IMPACTS

**Impact 4.12-1      Grading and construction associated with Project implementation could result in significant temporary noise impacts to nearby noise sensitive receptors.**

Construction activities have a short and temporary duration, lasting from a few days to several months, depending upon the specific activity. Groundborne noise and vibration,

as well as other types of construction-related noise impacts may occur during grading activities, which can create the highest levels of noise and vibration. Earthmoving activities generate the highest noise levels during this phase. High groundborne noise and other vibration levels and other miscellaneous noise levels can occur during this phase by the operation of heavy-duty trucks, backhoes, and other heavy-duty construction equipment.

Noise from construction activities is generated by two primary sources: 1) the transport of workers and equipment to construction sites, and 2) the noise related to active construction equipment. These noise sources can be a nuisance to local residents and businesses or unbearable to sensitive receptors. The Federal Transit Administration (FTA) has compiled data regarding noise generating characteristics of specific types of construction equipment and typical construction activities. These noise levels would decrease rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance.

The Project involves the following primary components: resurfacing of the existing parking lot; park construction and minor building modifications (carpentry activities); construction of the meadow and campground; and SR-18 intersection improvements. For the purposes of this analysis, the Project is assumed to begin construction in August 2016 and be completed by the end of December 2016.

Implementation of the proposed Project could generate significant amounts of noise and vibration during grading and construction operations. Sensitive receptors would be exposed to sporadic high noise and vibration levels associated with construction activities (as a result of power tools, graders, truck noise, etc.). Construction traffic would access the Project site from SR-18. As previously stated, the closest sensitive receptors to the Project construction boundary are located approximately 675 feet to the northwest of the Project site.

Construction noise can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, scrapers, and other heavy-duty construction equipment. Table 4.12-5, *Maximum Noise Levels Generated by Construction Equipment*,

indicates the anticipated noise levels of construction equipment noise levels and is based on the quantity, type, and acoustical use factor for each type of equipment that is anticipated to be used.

**Table 4.12-5: Maximum Noise Levels Generated by Construction Equipment**

Type of Equipment	Acoustical Use Factor <sup>1</sup> (percent)	L <sub>max</sub> 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
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.		

The primary construction equipment noise sources used during construction would be during grading, paving, and construction of the SR-18 intersection improvements (use of excavators, tractors/loaders/backhoes, rubber tired loaders, skid steer loaders, graders, pavers, paving equipment, and rollers), and grading activities at the campground (use of graders, excavators, dozers). Graders typically generate the highest noise levels, emitting approximately 85 dBA at a distance of 50 feet. Minimal construction equipment would be required for building construction at the amusement park, as the Project would build upon the existing buildings and infrastructure on-site and would require only minor carpentry work.

Point sources of noise emissions are atmospherically attenuated by a factor of 6 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.

The nearest sensitive receptors to the Project are residential uses located approximately 675 feet to the northwest of the closest Project boundary. At this distance, construction noise levels would be a maximum of 62.4 dBA at the residential uses to the northwest. Construction of the proposed Project would occur throughout the entirety of the Project site, and would not be confined to one location for an extended period of time. Further, the County of San Bernardino Municipal Code Section 83.01.080(g) allows construction to occur between the hours of 7:00 a.m. and 7:00 p.m. daily (except Sundays and Federal holidays).

Construction activities would also cause increased noise along access routes to and from the site due to movement of equipment and workers. The proposed Project would require the import of 12,000 cubic yards of soil, which would result in approximately 1,500 soil hauling trips. However, as construction would be limited to daytime hours per Municipal Code Section 83.01.080(g) and due to the short-term nature of construction activities, noise from vehicles accessing the Project site is not anticipated to be significant.

Adherence to County Municipal Code Section 83.01.080 requirements and compliance with the recommended 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. Construction of the proposed Project is anticipated to occur over a four month period and sensitive receptors would not be exposed to significant construction noise levels over an extended period of time. Construction noise impacts would cease upon completion of the construction phase. Implementation of Mitigation Measure NOI-1 would minimize any impacts from construction noise and would ensure that impacts are reduced to a less than significant level.

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**Mitigation Measures:**

**MM NOI-1**

Prior to Grading Permit issuance, the Project applicant shall prepare a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding sensitive receptors (e.g., residential uses) and includes specific noise management measures to be included into Project plans and specifications subject to review and approval by the San Bernardino Planning Department. The Project applicant shall demonstrate, to the satisfaction of the San Bernardino County Planning Director that the Project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- The County shall require that the contractor maintain and tune-up all construction equipment to minimize noise emissions.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.
- Stationary equipment shall be placed so as to maintain the greatest possible distance to the sensitive receptors.
- A qualified "Noise Disturbance Coordinator" will be retained amongst the construction crew who shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the County within 24 hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, malfunctioning muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the San Bernardino County Planning Department.

- Construction activities shall take place during weekdays between the hours of 7:00 a.m. and 7:00 p.m., and are prohibited on Sundays and Federal holidays.

<i>Threshold:</i>	<i>Would the Project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</i>
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**Impact 4.12-2      Implementation of the proposed Project would not result in significant vibration impacts to nearby sensitive receptors.**

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. The types of 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 25 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. Construction activities that may occur at the Project site have the potential to generate low levels of groundborne vibration.

Table 4.12-6, *Typical Vibration Levels for Construction Equipment*, identifies various vibration velocity levels for types of construction equipment.

**Table 4.12-6: Typical Vibration Levels for Construction Equipment**

Equipment	Approximate peak particle velocity at 50 feet (inches/second) <sup>1</sup>	Approximate peak particle velocity at 75 feet (inches/second) <sup>2</sup>	Approximate peak particle velocity at 100 feet (inches/second) <sup>2</sup>
Large bulldozer	0.031	0.006	0.004
Loaded trucks	0.027	0.005	0.003
Small bulldozer	0.001	0.000	0.000
Jackhammer	0.012	0.002	0.002
Vibratory compactor/roller	0.074	0.014	0.009

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

Ground-borne vibration decreases rapidly with distance. As indicated in Table 4.12-6, based on the FTA data, vibration velocities from typical heavy construction equipment operations that could be used during Project construction range from 0.000 to 0.04 inch-per-second peak particle velocity (PPV) at 100 feet from the activity source. With regard to the Project, ground-borne vibration would be generated primarily during grading activities on-site, and by off-site haul-truck travel facilitated by soil import activities associated with SR-18 intersection improvements. The closest structures to the nearest construction activity area are residential uses located approximately 675 feet northwest of the Project site. As demonstrated in Table 4.12-6, the anticipated vibration levels at these distances would not exceed the 0.2 inch-per-second PPV significance threshold during construction operations. Therefore, vibration impacts associated with construction are anticipated to be less than significant and no mitigation measures are required.

<i>Threshold:</i>	<i>Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</i>
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## LONG-TERM (MOBILE) NOISE IMPACTS

**Impact 4.12-3**      **Traffic generated by the proposed Project would not significantly contribute to existing traffic noise in the area or exceed the County's established standards.**

### *EXISTING TRAFFIC NOISE*

According to the *Traffic Impact Analysis*, the proposed Project would generate 1,408 daily vehicle trips; refer to Appendix I, Traffic Impact Analysis. Table 4.12-7, *Existing and Existing Plus Project Roadway Traffic Noise Levels*, depicts the Existing noise scenario and the "Existing Plus Project" scenario. As indicated in Table 4.12-7 under the "Existing" scenario, noise levels at a distance of 100 feet from the centerline are approximately 62.1 dBA along SR-18 in the vicinity of the Project site. Under the "Existing Plus Project" scenario, noise levels at a distance of 100 feet from the centerline would be approximately 62.5 dBA. Table 4.12-7 also compares the "Existing" scenario to the "Existing Plus Project" scenario. The proposed Project would increase noise levels on SR-18 by a maximum of 0.4 dBA east of Kuffel Canyon Road. As stated under the *Significance Criteria*, a significant impact would occur if noise levels increase by 3.0 dBA or more. In addition, although the traffic noise levels under the "Existing Plus Project" scenario (62.5 dBA) would exceed the County's noise standards for adjacent mobile noise sources (60 dBA CNEL) at the residential uses to the northwest, these sensitive receptors are exposed to noise levels currently exceeding the County's 60 dBA CNEL noise standard under existing conditions; refer to Table 4.12-7. Therefore, noise impacts resulting from the Project's increase in traffic would be less than significant under "Existing Plus Project" conditions.

**Table 4.12-7: Existing and Existing Plus Project Roadway Traffic Noise Levels**

Roadway Segment	Existing					Existing Plus Project					Difference in dBA @ 100 feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (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	
<b>SR-18</b>											
East of Kuffel Canyon Road	11,500	62.1	154	72	33	12,486	62.5	163	76	35	0.4
Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level											
Source: Noise modeling is based upon traffic data within the <i>Traffic Impact Study for the Skypark at Santa's Village Project</i> , prepared by Gibson Transportation Consulting, Inc., December 2015.											

*FUTURE YEAR 2035 TRAFFIC NOISE*

Table 4.12-8, *Future Year 2035 With Project Roadway Traffic Noise Levels*, compares the “2035 Without Project” and “2035 With Project” scenarios to evaluate future traffic noise conditions for the year 2035. As indicated in Table 4.12-8 under the “2035 Without Project” scenario, noise levels at a distance of 100 feet from the SR-18 centerline would be approximately 66.9 dBA (east of Kuffel Canyon Road). Under the “2035 With Project” scenario, noise levels at a distance of 100 feet from the SR-18 centerline would be approximately 67.0 dBA. As indicated in Table 4.12-8, the proposed Project would increase noise levels on SR-18 by a maximum of 0.1 dBA east of Kuffel Canyon Road for the year 2035. Therefore, noise levels resulting from the proposed Project would be less than significant.

**Table 4.12-8: Future Year 2035 With Project Roadway Traffic Noise Levels**

Roadway Segment	2035 Without Project					2035 With Project					Difference in dBA @ 100 feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline (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	
<b>SR-18</b>											
East of Kuffel Canyon Road	34,500	66.9	321	149	69	35,486	67.0	328	152	71	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 <i>Traffic Impact Study for the Skypark at Santa's Village Project</i> , prepared by Gibson Transportation Consulting, Inc., December 2015.											

<i>Threshold:</i>	<i>Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</i>
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## LONG-TERM (STATIONARY) NOISE IMPACTS

### **Impact 4.12-4      The proposed Project would not result in a significant increase in long-term stationary ambient noise levels.**

The Project would include the operation of a 23,389 square-foot outdoor amusement park (on 152 acres), and a 70-site campground on the south side of SR-18 across from the amusement park. Recreational activities at the Project site would include varied outdoor activities (e.g., zip line, mountain biking, climbing, hiking, craft projects, recreational games, weddings etc.) that would produce nominal noise at the nearest sensitive receptors (residential uses approximately 675 feet to the northwest of the Project boundary). The primary noise sources associated with the proposed amusement park would be mechanical equipment, an outdoor public address (PA) system and/or recorded music, live music, crowd noise, campground noise, and parking lot noise.

Mechanical Equipment. The proposed Project would require the use of air conditioners, maintenance tools, hand carts, and the pedal powered monorail. Air conditioning units typically result in noise levels that average between 40 and 50 dBA  $L_{eq}$  at 50 feet from the equipment. Air condition units could be installed in or on the roof of the buildings on-site. Noise impacts from these sources would be infrequent and intermittent. Since the closest sensitive receptors are existing residential uses 675 feet from the closest potential location of the air conditioning equipment, noise levels from air conditioning units would be below the County's limits of 45 to 55 dBA for residential uses.<sup>4</sup> In addition, noise from the proposed outdoor recreational activities (i.e., pedal powered monorail, zip line, hiking, fishing, climbing, biking, etc.) would be minimal, as these activities are man-

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<sup>4</sup> Refer to Table 4.10-4, as acceptable exterior noise levels for residential properties is 55 dBA between 7:00 AM and 10:00 PM (Daytime) and 45 dBA between 10:00 PM and 7:00 AM (Nighttime).

powered and do not require gas-powered or other mechanical equipment to operate. As such, no loud mechanical equipment noise is expected at the Project site.

Public Address System. Operations at the amusement park would include low level background music and occasional announcements from the PA system, presented through a distributed loudspeaker system located throughout the park. A typical PA system can produce noise levels of approximately 87.5 dBA at 20 feet from the source.<sup>5</sup> The nearest sensitive receptors would be located approximately 1,400 feet from the PA system and the amusement park at the Project site. At this distance, the noise levels generated by the PA system would result in a noise level of approximately 50.6 dBA at these residential uses. As a result, the proposed PA system for announcements, music, etc. would not exceed the County's 55 dBA threshold for residential uses from stationary noise sources. Furthermore, additional noise attenuation would be provided by surrounding intervening terrain between the Project site and sensitive receptors. A less than significant impact would occur in this regard.

Live Music. The amusement park would provide occasional live music events (including weddings) in the eastern portion of the Project site. Live music typically generates noise levels of 88 dBA at 20 feet from the source.<sup>6</sup> The nearest sensitive receptors would be located approximately 1,650 feet from the live music stage/area at the Project site. At this distance, the noise levels generated by live music would result in a noise level of approximately 49.7 dBA based on distance attenuation alone. As a result, live music at the Project site would not exceed the County's 55 dBA threshold for residential uses from stationary noise sources. A less than significant impact would occur in this regard.

Crowd Noise. Noise associated with the amusement park would include crowd noise from patrons from operations of the park, and from weddings on-site. Crowd noise 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

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<sup>5</sup> Edward L. Pack Associates, Inc., Noise Assessment Study for the Planned Pavilion, Boulder Ridge Country Club, Santa Clara County, May 2, 2008.

<sup>6</sup> Ibid.

feet) away for raised normal speaking.<sup>7</sup> 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.<sup>8</sup> Therefore, crowd noise would be 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. Based upon the Inverse Square Law, sound levels decrease by 6 dBA for each doubling of distance from the source.<sup>9</sup> As a result, crowd noise would be 56.0 dBA at 6.56 feet and 52.3 dBA at 10 feet. Crowd noise generated at the amusement park would be approximately 15.7 dBA at the closest sensitive receptor (residential uses 1,200 feet to the northwest) would be 15.7 dBA, which is well below the San Bernardino County's 55 dBA standard for residential uses from stationary noise sources.<sup>10</sup> A less than significant impact would occur in this regard.

Campground. The proposed Project includes a 70-space campground located south of the Santa's Village on the south side of SR-18. This campground would be approximately 1,450 feet from the nearest residence. Noise associated with activities at the campground would be the driving of tent stakes, conversation, cooking functions, children playing music, people walking along trails, periodic maintenance of toilets, etc.<sup>11</sup> These activities would generally produce low to moderate levels of noise. Campground noise is approximately 85 dBA at a distance of 20 feet. As the nearest sensitive receptors are approximately 1,450 feet from the campground, noise levels would be approximately 47.8 dBA. As such, campground noise would be below the San Bernardino County's 55 dBA standard for residential uses from stationary noise sources. A less than significant impact would occur in this regard.

Parking Lot Noise. Traffic 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. Parking lot noise is considered a "stationary" noise source; however, parking lot noise would not occur on a consistent basis after park hours.

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<sup>7</sup> M.J. Hayne, et al, *Prediction of Crowd Noise*, Acoustics, November 2006.

<sup>8</sup> Ibid.

<sup>9</sup> Cyril M. Harris, *Noise Control in Buildings*, 1994.

<sup>10</sup> Refer to Table 4.10-3, as acceptable exterior noise levels for residential properties is 55 dBA between 7:00 AM and 10:00 PM (Daytime) and 45 dBA between 10:00 PM and 7:00 AM (Nighttime).

<sup>11</sup> Dudek & Associates, *Malibu Parks Public Access Enhancement Plan-Public Works Plan Final Environmental Impact Report*, August 2010.

Estimates of the maximum noise levels associated with certain parking lot activities are presented in Table 4.12-9, *Maximum Noise Levels Generated by Parking Lots*.

**Table 4.12-9: Existing and Existing Plus Project Roadway Traffic Noise Levels**

Noise Source	Maximum Noise Levels (A-weighted decibels) at 50 Feet from Source
Car door slamming	63 equivalent sound level
Car starting	60 equivalent sound level
Car idling	61 equivalent sound level

The Project proposes two surface parking lots at the Project site (one north of SR-18 to the west of the amusement park, and one south of SR-18 adjacent to the campground). It should be noted that the parking lot associated with Santa's Village (north of SR-18) is currently located on-site. Conversations in parking areas may be an annoyance to adjacent sensitive receptors, including residential uses located approximately 675 northwest to the northwest of the nearest parking lot. As shown in Table 4.10-109, parking lot noise would produce a maximum noise level of 63 dBA at 50 feet from the source. At a distance of 675 feet, parking lot noise would be a maximum of 40.4 dBA at the nearest residential uses. As such, parking lot noise would be below the San Bernardino County's 55 dBA standard for residential uses from stationary noise sources. A less than significant impact would occur in this regard.

Overall, noise associated with the proposed Project would not produce any significant noise impacts onto the surrounding properties. All stationary noise sources at the Project site would generate noise levels below the County's noise limits. Therefore, a less than significant impact would occur in this regard.

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site, as a potential future contribution for the extension of Cumberland Drive. The extension of Cumberland Drive is expected to be constructed at some time in the future. In order for the Cumberland Drive extension to occur the following would have to occur:

- Property owners to the north of the Project site submit applications to the County for planned residential development;
- An alignment study is completed and reviewed and approved by the County Public Works Department to identify the exact location of the roadway;
- Future residential development or developments north of the Project site design and construct the extension of Cumberland Drive to SR-18 as a condition of approval, in accordance with the location identified in the alignment study.

As such, it cannot be determined at this time if the dedication as a part of the proposed Project will actually be used for an extension of Cumberland Drive. However, the dedication of right-of-way within the Project site ensures that the property will be retained for that purpose, if the road is to be constructed and in that location. Therefore, the proposed Project will not conflict with the potential future implementation of Lake Arrowhead Community Plan Policy LA/CI 1.14.

Sensitive receptors (residential uses) are located within 675 feet of the nearest Project site boundary. If Cumberland Drive were to be constructed along the proposed Project's northwestern boundary, construction noise from construction equipment typically used would not be anticipated to be significant at the closest sensitive receptors and if it would exceed acceptable levels it is anticipated that those could be minimized/mitigated with use of temporary noise barriers. Because it is too speculative to anticipate the extent of residential development (number of units and number of daily trips generated) that would be constructed north of the Project site and would trigger the requirement to extend Cumberland Drive to SR-18, the potential future long-term (mobile) noise impacts from future traffic along the Cumberland Drive extension on nearby sensitive receptors cannot be estimated. Future residential development projects would be subject to CEQA review, and would be required to identify noise impacts and mitigation measures to limit noise impacts at sensitive receptors.

*Threshold: 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?*

<i>Threshold:</i>	<i>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?</i>
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## AIRPORT NOISE IMPACTS

**Impact 4.12-5      The proposed Project would not result in significant impacts related to aircraft noise.**

The Project is not located within an airport land use plan or within two miles of a public airport or public use airport. The closest airport to the Project site is the San Bernardino International Airport, located approximately 11 miles to the south. The Lake arrowhead airport is the closest private airport to the Project and is located approximately five miles to the north. As such, the proposed Project would not expose people residing or working in the Project area to excessive noise levels. Impacts would be less than significant in this regard.

## CUMULATIVE IMPACTS

### SHORT-TERM CONSTRUCTION NOISE IMPACTS

**Impact 4.12-6      Development associated with implementation of the proposed Project and other related cumulative projects would not result in significant short-term noise impacts to nearby noise sensitive receivers, following implementation of mitigation measures.**

Construction activities associated with the proposed Project and cumulative projects may overlap, resulting in construction noise in the area. However, as analyzed above, construction noise impacts primarily affect the areas immediately adjacent to the construction site. Construction noise for the proposed Project was determined to be less than significant following compliance with the County Municipal Code and Mitigation Measure NOI-1. Cumulative development in the vicinity of the Project site could result in elevated construction noise levels at sensitive receptors in the Project area. However, each project would be required to comply with the applicable County of San Bernardino Municipal Code limitations on allowable hours of construction. Therefore, the Project

would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable.

*Mitigation Measures:* Refer to Mitigation Measure NOI-1.

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

## VIBRATION IMPACTS

**Impact 4.12-7      Project implementation combined with other related cumulative projects would not result in significant vibration impacts to nearby sensitive receptors.**

As stated above, construction activities associated with the proposed Project and cumulative projects may overlap. Further, groundborne vibration generated at the Project site during construction would not exceed the FTA's 0.02 inch/second PPV significance threshold. Project operations would not involve the use of heavy equipment or machinery capable of generating groundborne vibration. As such, there would be no vibration impacts associated with construction and operations at the Project site.

Cumulative development projects could be located in close proximity to sensitive receptors, and buildings that may experience architectural damage from vibration during construction activities. As such, it is possible that potential vibration levels could exceed the FTA's 0.02 inch/second PPV significance threshold during construction activities (refer to Table 4.12-6). Therefore, each cumulative development project would be required to conduct a site-specific noise impact analysis and implement any required mitigation measures that may be prescribed pursuant to CEQA provisions. However, as noted above, the Project would not result in vibration impacts. Therefore, vibration impacts of the proposed Project would not be cumulatively considerable, and cumulative projects would undergo CEQA review to determine the severity of vibration impacts. Impacts in this regard are not cumulatively considerable.

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## LONG-TERM (MOBILE) NOISE IMPACTS

**Impact 4.12-8**      **Traffic generated by the proposed Project combined with other related cumulative projects would not significantly contribute to existing traffic noise in the area or exceed the County's established standards.**

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 ("2035 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 "2035 With Project" causes a 1 dBA increase in noise over the "2035 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 4.12-10, *Cumulative Noise Scenario*, lists the traffic noise effects along roadway segments in the Project vicinity for "Existing", "2035 Without Project", and "2035 With Project" scenarios, including incremental and net cumulative impacts.

First, it must be determined whether the "2035 With Project" increase above existing conditions (*Combined Effects*) is exceeded. Per Table 4.12-10, this criteria is exceeded along SR-18 (east of Kuffel Canyon Road), as the Project would result in a 7.9 dBA increase under the *Combined Effects*. Next, under the *Incremental Effects* criteria, cumulative noise impacts are defined by determining if the forecast ambient ("2035 Without Project") noise level is increased by 1 dB or more. Based on the results of Table 4.10-10, this criterion is not exceeded along SR-18. As such, there would not be any roadway segments that would result in significant impacts, as they would not exceed both the combined and 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 Project would not contribute to cumulative impacts, and impacts in this regard are not cumulatively considerable.

## LONG-TERM (STATIONARY) NOISE IMPACTS

**Impact 4.12-9      The proposed Project combined with other related cumulative projects would not result in a significant increase in long-term stationary ambient noise levels.**

Although cumulative development may occur in the Project area, noise generated by stationary equipment on-site cannot be quantified given the conceptual nature of each development and since speculation would be involved. However, each cumulative project would require separate site-specific noise impact analysis, 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 development sites and their vicinities.

As noted above, sensitive receptors (residential uses) are located within 675 feet of the nearest Project site boundary. Primary Project operations would occur within the interior of the Project site, approximately 1,200 to 1,600 feet from the closest receptors. Operational activities associated with the amusement park, campground, and parking lots would involve stationary noise sources that could create occasional noise at the nearby residential uses. However, as noted above, these noise levels would dissipate over distance, and would be below the County's allowable noise limits for stationary sources. Cumulative development projects would be subject to CEQA review, and would identify noise impacts and mitigation measures to limit noise impacts at sensitive receptors. Therefore, it can be reasonably inferred that the proposed Project and identified cumulative projects are anticipated to result in a less than significant cumulative impact.

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**Table 4.12-10  
Cumulative Noise Scenario**

Roadway Segment	Existing	2035 Without Project	2035 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 2035 With Project	Difference in dBA Between 2035 Without Project and 2035 With Project	
<b>SR-18</b>						
East of Kuffel Canyon Road	62.1	66.9	67.0	7.9	0.1	No
Source: Noise modeling is based upon traffic data within the <i>Traffic Impact Study for the SkyPark at Santa's Village Project</i> , prepared by Gibson Transportation Consulting, Inc., December 2015.						

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## **4.13 POPULATION AND HOUSING**

The purpose of this section is to discuss the potential population and housing impacts associated with implementation of the proposed Skypark at Santa's Village (Project). All physical, secondary environmental impacts related to population growth, such as traffic, noise, and water supply, are discussed in their respective subsections of Chapter 3 of this Draft EIR. Information in this section was compiled from the San Bernardino County, Section IV, *General Plan Housing Element* (2007), data from the U.S. Census (2010, and American Community Survey 2010) at the tract level for the San Bernardino County census tracts 110.02 and 111.01 where the Project site is located, the California Department of Finance, the Southern California Association of Governments (SCAG), and the California Department of Finance.

### **EXISTING CONDITIONS**

#### **POPULATION**

The proposed project site is located in the San Bernardino Mountains of San Bernardino County, California near the community of Lake Arrowhead. Lake Arrowhead had a 2010 population estimate of 12,424<sup>1</sup>, about (.01) percent of the population of the County of San Bernardino (County) as of 2015. The 2015 population of the County was estimated at 2,104, 291 by the State of California Department of Finance.<sup>2</sup>

Population growth in the unincorporated census tracts (110.02 and 111.01) contiguous to Sky Forest (Project), between 2010 and 2013 averaged one (1) percent per year. However, the general area of the unincorporated community of Skyforest has experienced a slow but steady population growth of four (4) percent between 2010 and 2013, which is larger than the average two (2) percent change from (2010 to 2013) of the County.

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<sup>1</sup> U.S. Census Profile of General Population and Housing Characteristics: 2010. 2010 Demographic Profile Data.

<sup>2</sup> State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State– January 1, 2011- 2015, with 2010 Benchmark. Sacramento, California, May 2015.

Unincorporated County data is limited for the specific (Project) location; however, an estimate of population change within unincorporated community of Skyforest and surrounding area within census tracts was available from 2010-2013. Additional data for the County and its unincorporated areas was obtained using the E-4 Population Estimates for Cities, Counties, and state 2000-2015 from the California Department of Finance by subtracting County total from population within incorporated cities, the difference was estimated to be the total population of unincorporated areas per year. Data shows that census tracts 110.02 & 111.01 grew from 2010-2013 an average of one (4) percent. From 2010-2015, the unincorporated areas of the County grew around (3) percent. This reflects that the census tracts including and surrounding the unincorporated community of Skyforest are growing areas and they continue to grow compared to the overall unincorporated areas in the County as shown in the County's growth rates for the same time periods. SCAG projects the population of the unincorporated areas of San Bernardino County to grown by approximately 11 percent to 327,600 people by 2035.<sup>3</sup> Table 4.13-1, *Population Trends*, shows population patterns for census tracts contiguous to the unincorporated community of Skyforest, San Bernardino County, and the San Bernardino County unincorporated areas from 2010-2013. Exhibit 4.13-1, US Census Tracts, shows the Project site location in relation to the two census tracts (110.02 & 111.01) which the Project is part of, below.

**Table 4.13-1: Population Trends (Estimate 2010-2013)**

Year	Population	Change	Estimate Percent Change
<b>Census Tracts 110.02 &amp; 111.01 In the Unincorporated Community of Sky Forest</b>			
2010	5,279	-	-
2011	5,327	(from 2010) 48	(from 2010) 1%
2012	5,434	(from 2010) 155	(from 2010) 3%
2013	5,474	(from 2010) 195	(from 2000) 4%
<b>San Bernardino County</b>			
2010	2,035,210	-	-
2011	2,046,619	(from 2010) 11,409	(from 2010) 1%
2012	2,054,786	(from 2010) 19,576	(from 2010) 1%

<sup>3</sup> SCAG 2012-2035 RTP/SCS Growth Forecast by City, Adopted April 2012.

Year	Population	Change	Estimate Percent Change
2013	2,069,806	(from 2010) 34,596	(from 2010) 2%
<b>San Bernardino County, Unincorporated Areas (CDP)</b>			
2010	291,776	-	-
2011	293,297	(from 2010) 1,521	(from 2010) 1%
2012	294,031	(from 2010) 2,255	(from 2010) 1%
2013	295,808	(from 2010) 4,032	(from 2010) 1%

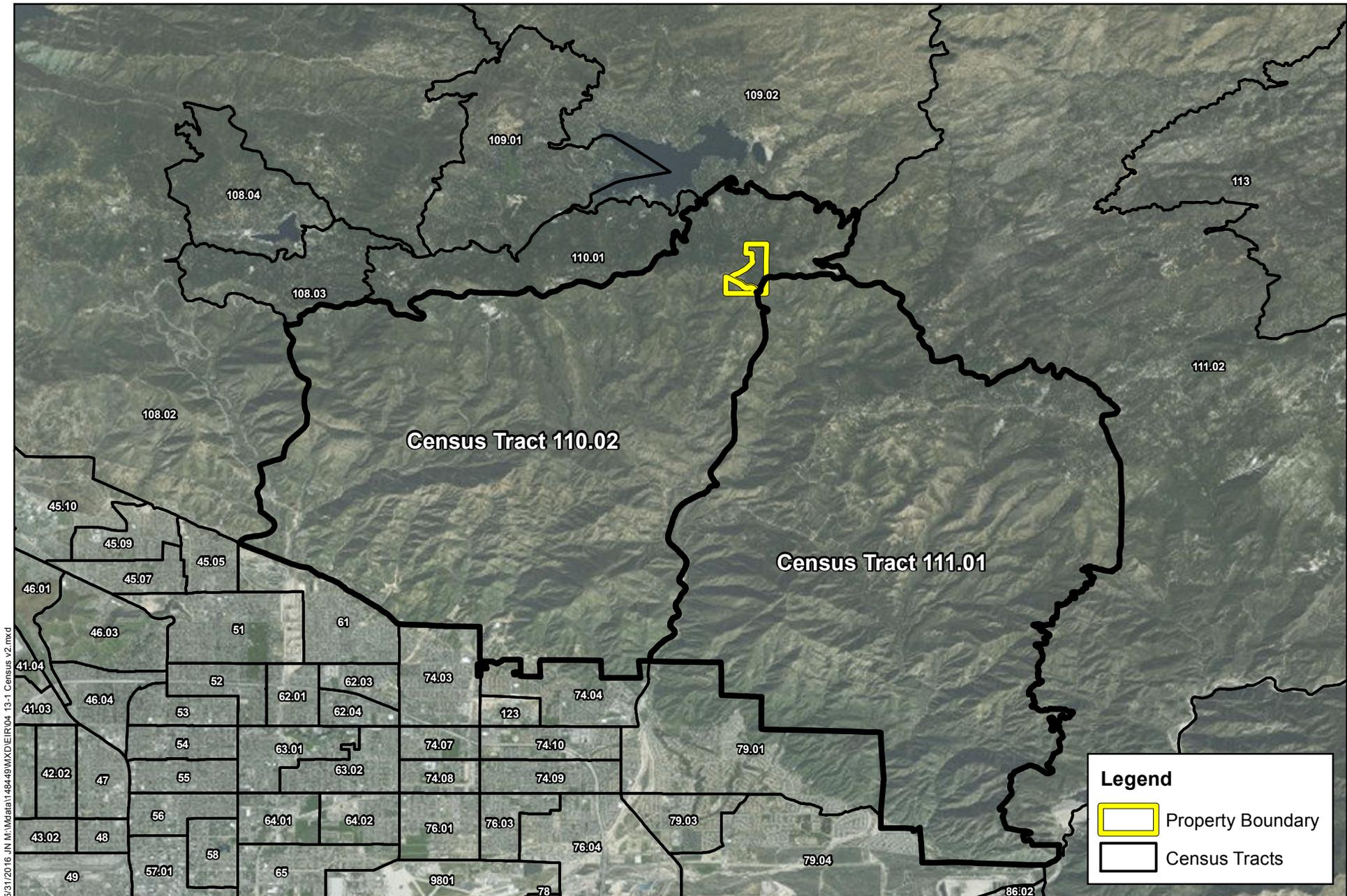
Sources:

U.S. Census Bureau, 2009-2013 American Community Survey 5-Year Estimates for Census Tracts & County

SCAG RTP Growth Forecast by City, Adopted April 2012

State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 20011-2015, with 2010 Benchmark. Sacramento, California, May 2015.

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**Michael Baker**  
INTERNATIONAL



Source: San Bernardino County, ESRI World Imagery

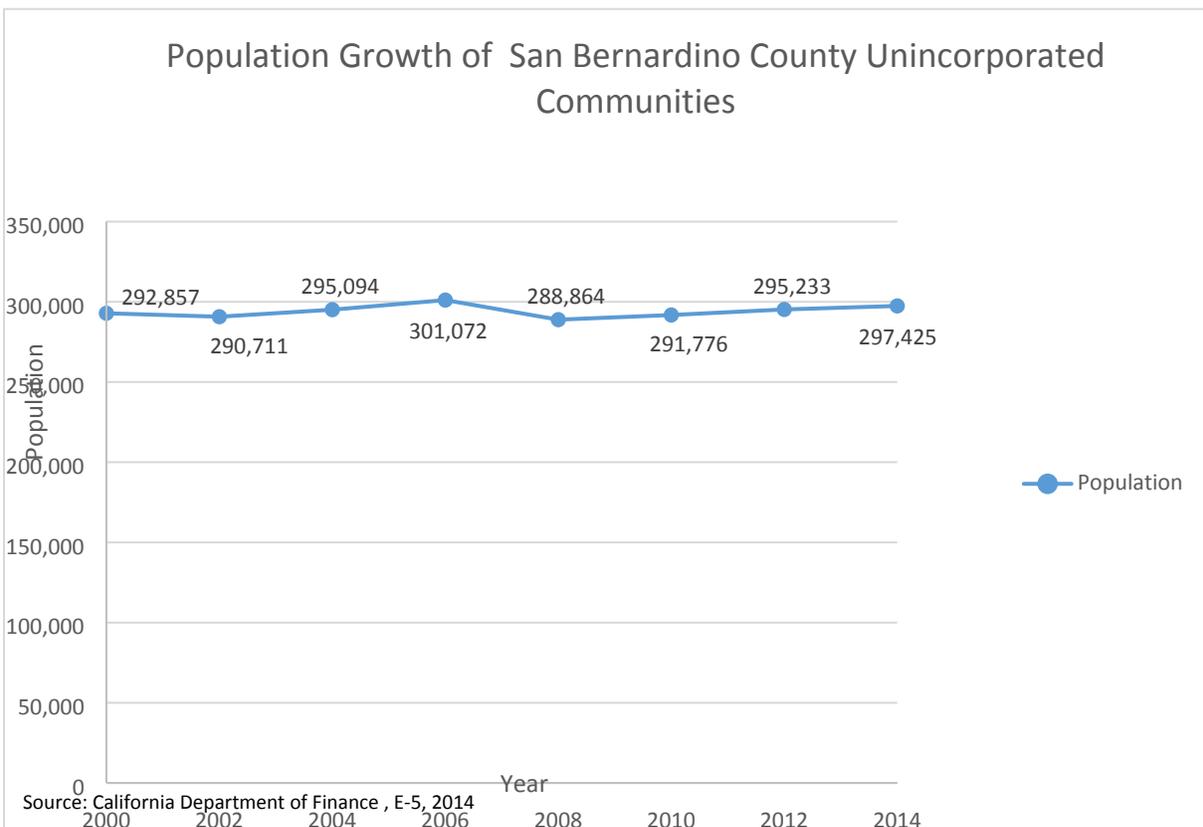
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# US Census Tracts

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The California Department of Finance provides a trend line showing population change from a historical context year for a larger time span for years 2000-2014. The total population of unincorporated San Bernardino County increased by 4,568 to 297,425 in 2014 at a rate of 14.3 percent, as shown below in *Graph 4.13-1: Population Growth of San Bernardino County Unincorporated Communities*.

**Graph 4.13-1: Population Growth of San Bernardino County Unincorporated Communities**



### HOUSING

The unincorporated community of Sky Forest and the surrounding mountain communities faced a heavy demand on lumber mills during the 1860's as the need for lumber increased to build homes, churches, stores, and civic buildings. However, Sky Forest and the unincorporated surrounding communities have grown into residential communities and tourist destinations. According to the San Bernardino County *General*

*Plan*, improvements in the road system allowed for rapid population accessibility which in turn made this general area a desirable vacation destination. Yet, to a large degree, a rural life-style and environment at Sky Forest and surrounding unincorporated communities has been consciously maintained.<sup>4</sup>

According to the *General Plan*, on average, within the unincorporated Mountain Planning Region there are 2.54 persons per household while the population density average is 22,758 persons per square mile<sup>5</sup>. Overall, the unincorporated Mountain Regions of San Bernardino averaged lower than 3.1, 3.3, and 2.94 persons per household of the unincorporated San Bernardino areas, San Bernardino County as whole, and the State of California, respectively.<sup>6</sup> The total County unincorporated communities housing units, as of 2014, was 133,363<sup>7</sup> with a majority of those housing units are single detached home (83%). Census tracts including and surrounding the unincorporated community of Sky Forest have a total of 3,979 housing units (2013)<sup>8</sup> with a majority of those housing units being single detached homes (95.1 percent) as shown on *Table 4.13-2: San Bernardino Unincorporated Communities Housing Stock*, and *Table 4.13-3: Housing Stock for Census Tracts (110.02 & 111.01) Including and Surrounding the Unincorporated Community of Sky Forest*, below.

**Table 4.13-2: San Bernardino County Unincorporated Communities Housing Stock**

Total Housing Units	Single Detached	Single Attached	2-4 Units	5 Units +	Mobile Homes
133,363	110,867	2,929	4,079	2,247	13,241
100%	83%	2.2%	3.1%	1.7%	10%

Source: Profile of the Unincorporated Area of San Bernardino County. May 2015

<sup>4</sup> San Bernardino County General Plan, 2007.

<sup>5</sup> San Bernardino County General Plan, 2007.

<sup>6</sup> Profile of the Unincorporated Area of San Bernardino County. May 2015

<sup>7</sup> California Department of Finance, E-5, 2014

<sup>8</sup> U.S. Census Bureau, 2009-2013 5-Year American Community Survey, Tract Level

**Table 4.13-3: Housing Stock for Census Tracts (110.02 & 111.01) Including and Surrounding the Unincorporated Community of Sky Forest in 2013**

Total Housing Units	Single Detached	Single Attached	2 Units	3-4 Units	Mobile Homes
3,979	3,785	56	53	20	18
100%	95.1%	1.4%	1.3%	.5%	.5%

Source: U.S. Census Bureau, 2009-2013 5-year American Community Survey for Census Tracts

*FUTURE HOUSING NEEDS*

The Department of Housing and Community Development (HCD) determines housing construction needs for the State based on projected growth in population, employment and households. These housing needs are allocated among cities by Regional Councils of Government. The SCAG distributes a regional housing goal number by HCD, and is mandated to allocate the numbers to jurisdictions in the area. The future housing need in the unincorporated areas of San Bernardino County refers to the share of the regional housing need that has been allocated. Refer to *Table 4.13-4: Regional Housing Needs Allocation Plan*, below.

**Table 4.13-4: County of San Bernardino Housing Needs Allocation Plan**

	Unincorporated Areas	County of San Bernardino
% very low income households	23.5%	23.3%
% low income households	16.5%	16.2%
% moderate income households	18.5%	18.8%
% above moderate income households	41.9%	41.6%
<b>% Total</b>	<b>100%</b>	<b>100%</b>
Number of very low income households	9	25,051
Number of low income households	6	17,420
Number of moderate income households	7	20,275
Number of above moderate income households	17	24,797
<b>Total</b>	<b>39</b>	<b>100,543</b>

SCAG Regional Council, RHNA Final Allocation Plan 2007.

SCAG Regional Council, 5<sup>th</sup> Cycle RHNA Final Allocation Plan, 2014-2021

County of San Bernardino 2013-2021 Housing Element, January 2014

<sup>9</sup> U.S. Census Bureau, 2009-2013 5-Year American Community Survey, September 2015

SCAG adopted its Final Regional Housing Needs Allocation (RHNA) Plan on November, 2012 for the planning period of January 1, 2014 – October 1, 2021. Housing allocation needs for the unincorporated communities is not sub-divided, from this, and based on the SCAG 2012 Regional Housing Needs, the unincorporated areas of the County have been allocated a total of is 39 units while the County has been allocated 100,543 units. The unincorporated area's allocation of very low-income units (23.5 percent) is nearly the same as the County average (23.3 percent), and the allocation of above moderate-income units (41.9 percent) is again similar to the County average (41.6 percent).

#### *EMPLOYMENT*

As of 2013, the employment for census tracts 110.02 & 111.01 had a labor force of approximately 2,435 people. As of 2010, the unincorporated area in the County as a whole had a labor force of 107,255 people, and a County-wide labor force of 807,948<sup>10</sup>. This translates into a job labor force for these census tracts of about 2.3 percent within the unincorporated communities, and about .5 percent of the County. Table 4.13-5: *Occupations for Census Tracts (110.02 & 111.01) Including and Surrounding the Unincorporated Community of Sky Forest* and Table 4.13-6: *Occupations of San Bernardino County Residents*, below, compares each sector and their percent change from 2010 to 2013 for occupations for census tracts 110.02 & 111.01 and for all of the unincorporated areas of the County and County-wide in 2010.

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<sup>10</sup> County of San Bernardino 2013-2021 Housing Element. & SCAG 2014-2021 RHNA Methodology, 2011 (using 2005-2009 ACS).

**Table 4.13-5: Occupations for Census Tracts (110.02 & 111.01) Including and Surrounding the Unincorporated Community of Sky Forest**

Occupation Industry	2010	2011	2012	2013	% Change from (2010-2013)
Construction	253	189	197	259	2%
Manufacturing	174	127	106	66	-62%
Wholesale Trade	61	53	17	34	-44%
Retail Trade	175	250	274	245	40%
Transportation, Warehousing, and Utilities	202	145	103	77	-62%
Information	100	87	51	13	-87%
Finance, Insurance, Real Estate, Rental, Leasing	114	162	129	150	32%
Professional, Scientific, Management, Admin	258	238	310	334	29%
Educational, Health and Social Services	581	527	509	538	-7%
Arts, Entertainment, Recreation, Lodging and Food	380	292	335	308	-19%
Other Services	130	193	152	136	5%
Public Administration	228	268	229	223	-2%
Agriculture, Forestry, Fishing	28	42	53	52	86%
Total	2,684	2,573	2,465	2,435	-9%

Source: U.S. Census Bureau, 2009-2013-Year, American Community Survey 2015 Census Tracts 110.02 & 111.01

**Table 4.13-6: Occupations of San Bernardino County Residents**

Occupation Industry	2010	2011	2012	2013	% Change from (2010-2013)
Construction	70,951	65,485	60,574	57,458	-19%
Manufacturing	85,943	83,936	84,591	81,563	-5%
Wholesale Trade	33,179	30,483	29,104	29,065	-12%
Retail Trade	104,614	104,025	104,523	104,953	0%
Transportation, Warehousing, and Utilities	63,024	61,567	59,574	60,321	-4%
Information	14,762	13,887	12,954	12,443	-16%
Finance, Insurance, Real Estate, Rental, Leasing	46,496	45,084	42,037	41,405	-11%
Professional, Scientific, Management, Admin	68,024	68,464	67,785	68,783	1%
Educational, Health and Social Services	175,905	178,599	180,853	181,729	3%
Arts, Entertainment, Recreation, Lodging and Food	67,563	69,148	70,282	70,233	4%
Other Services	40,190	40,447	40,685	41,026	2%
Public Administration	47,003	47,493	47,158	46,428	-1%
Agriculture, Forestry, Fishing	6,256	6,484	6,343	6,443	3%
Total	823,910	815,102	806,463	801,850	-3%

Source: U.S. Census Bureau, Economic Characteristics 2009-2013-Year, American Community Survey 5-Year Estimates

According to the U.S. Census, the largest employment sector for census tracts 110.02 & 111.01, as of 2013, are educational, health, and social services, employing 538 people (22 percent) in 2013, followed by professional, scientific, management, and admin, employing 334 people (14 percent) in 2013. Similarly to the unincorporated community of Sky Forest, educational, health and social services sector was also recorded as the largest occupation sector in the County of San Bernardino employing 181,729 people (23 percent) as of 2013, while the second largest industry in the county was the retail and trade sector employing 104,953 people (13 percent) in 2013.

*JOBS-HOUSING BALANCE*

The jobs-housing balance is a ratio between the number of jobs and the number of housing units within a defined area. A jobs-housing ratio that is less than 1.0 indicates that the community has more homes than jobs; residents in these communities generally

commute to other communities for work. A jobs-housing ratio that is higher than 1.0 indicates that the community has more jobs than homes; employees from other areas commute into these areas for work.

When the jobs-housing ratios in a region are substantially less or more than 1.0, many residents are required to commute to other communities. These commuting patterns contribute to regional traffic problems and increased vehicle air pollutant emissions and related air quality problems.

Census tracts 110.02 & 111.01 were estimated to have approximately 3,979 housing units in 2013. The California Department of Housing and Community Development (HCD) provide a target goal of 1.5 jobs per housing unit, and the County of San Bernardino has a target goal of 1.2 jobs per housing unit. The jobs-housing ratio for the census tracts 110.02 & 111.01 is .62 (2,435 jobs / 3,979 housing units) in 2013. In 2010, the unincorporated communities of the San Bernardino County had a jobs-housing ration of .8 (107,255 jobs / 133,363 housing units), while the County's jobs-housing ratio was 1.5 (807,948 jobs / 699,637 housing units) in 2010.

Mean travel time to work is not available for the census tracts contiguous to the unincorporated community of Sky Forest; however, the unincorporated community of Lake Arrowhead which is located about 1.5 miles north of the Project site was utilized to provide an idea for the travel time to work for the general unincorporated mountain communities. According to the U.S. Census, on average, residents of the unincorporated community of Lake Arrowhead commute 28.6 minutes which is slightly lower than the 29.9 minutes for the County, but slightly higher than the 27.2 minutes for the State. Tables 4.13-7: *Average Commuting Times*.

**Table 4.13-7: Average Commuting Times**

<b>Mean Travel Time to Work</b>	<b>Unincorporated Community of Lake Arrowhead</b>	<b>San Bernardino County</b>	<b>California</b>
Workers Age 16+ 2009-2013 (minutes)	28.6	29.9	27.2

*Source: U.S. Census 2009-2013 QuickFacts Beta. September 2015.*

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## REGULATORY SETTING

### COUNTY OF SAN BERNARDINO GENERAL PLAN

The Land Use Element of the County *General Plan (2007)* provides policy direction for each land use designation, and also provides overall land use policies for the County. According to the County *General Plan*, the purpose of the Land Use Element is to act as a guide for the County's future development. The following goals, policies, and programs are applicable to the proposed project:

**Goal:**

- M/H 1** Encourage a diversity of housing types that will accommodate all individuals and families from all income levels.

**Policies:**

- M/H 1.1** The following methods of housing development and design shall be encouraged in the Mountain Region:
- a. Clustered development and attached units.
  - b. Planned Development projects.
  - c. Shared senior housing and group care homes.

- M/H 1.2** Encourage the application of the Housing Incentive Programs to cluster development, single and multiple family, in the Mountain Region.

- M/H 1.3** In the Mountain Region, the following criteria for multiple-family residential units developed under the Housing Incentive Program shall be utilized:
- a. In close proximity to commercial uses.
  - b. Adjacent to a Mountain secondary or greater width roadway.

- c. Where adequate circulation exists to accommodate the increased traffic as verified by the Traffic Division.
- d. Located where services (particularly water and sewer) are available or assured as confirmed by the respective purveyor.
- e. Located where average slopes are flat to gently sloping (0-15% slope).
- f. Located where compliance with fire safety standards are met.

## ENVIRONMENTAL ANALYSIS

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on Appendix G of the *CEQA Guidelines*. For the purposes of this analysis, an impact on population and housing is considered significant if the proposed project would:

- 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).
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

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## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### DIRECT AND INDIRECT POPULATION GROWTH

<i>Threshold:</i>	<i>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)?</i>
-------------------	---

**Impact 4.13-1:** The site would not directly nor indirectly induce substantial population growth in an area. Although, the SkyPark proposed project would create new employment opportunities, it would not create enough jobs that would generate the need for new housing development in an area where housing is already available. Furthermore, temporary construction jobs would not generate permanent population growth. Moreover, due to the low jobs to household ratio in the area, it is expected that any long term/operational jobs would likely be filled by existing mountain residents and therefore not induce population growth. *Level of Significance: Less than Significant Impact.*

<i>Threshold:</i>	<i>Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</i>
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**Impact 4.13-2:** The Project would not displace any existing housing and therefore would not necessitate the construction of replacement housing elsewhere. The Project site has not been operational for approximately 10 years until recently being purchased by the applicant with the intent to re-open the attraction to its original purpose, a recreational use. No impacts would occur. *Level of Significance: No Impact.*

<i>Threshold:</i>	<i>Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</i>
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**Impact 4.13-3:**      **The Project does not involve the displacement of any existing residences. The proposed Project would not displace substantial numbers of people and thus, would not necessitate the construction of replacement housing elsewhere. No impacts would occur. *Level of Significance: No Impact.***

## CUMULATIVE IMPACTS

The cumulative impacts analysis for population and housing relied upon the projections of the County *General Plan*, *DOF*, *SANBAG*, and *SCAG*. Cumulative impacts relative to population and housing would be impacts that result from incremental increases in population that would result in rampant growth or the displacement of housing or populations. Currently, the site is not in use. The area surrounding the site consists of either undeveloped land or residential uses.

This EIR section analyzed the long-term development of the unincorporated community of Sky Forest and San Bernardino County, and found that no significant impacts relative to population and housing would occur with implementation of the proposed Project. Implementation of the proposed Project would not result in more units than envisioned by the *General Plan* or *SCAG* nor would it displace substantial housing or populations.

As this is the baseline for the evaluation of cumulative impacts and the proposed project would not result in substantial population growth beyond that envisioned by the County *General Plan*, the unincorporated community of Sky Forest, or *SCAG*, nor would substantial housing or populations be displaced, no cumulative impacts relative to population and housing are expected with implementation of the proposed project. Therefore, cumulative population and housing impacts would be less than significant.

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## SECTION 4.14

### PUBLIC SERVICES

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#### 4.14 PUBLIC SERVICES

Public services include fire protection, law enforcement, water services, wastewater services, emergency services, schools, libraries, and medical facilities. In unincorporated mountain areas in San Bernardino County, departments within the County provide law enforcement and fire protection.

This section provides discussion of existing conditions within the Project area as they pertain to public services based on the County of San Bernardino master planning process. Information in this section is based primarily on the *San Bernardino County Fire and Rescue Station Map*, the *California Department of Education*, the *San Bernardino County General Plan* and the *Lake Arrowhead Community Plan*.

### ENVIRONMENTAL SETTING

#### FIRE PROTECTION AND EMERGENCY SERVICES

The project area is located in Sky Forest, one of six communities of unincorporated Lake Arrowhead in the San Bernardino Mountains in San Bernardino County, California. San Bernardino County Fire Department provides fire protection services to the community of Sky Forest. San Bernardino County Fire Department utilizes engines, quints<sup>1</sup>, trucks, paramedic rescue squads, water tenders, and hazardous materials teams. The nearest San Bernardino County Fire Department station to the proposed project site is Station 91, located 301 CA 173, Lake Arrowhead, CA 92352, approximately 2 miles northwest of SkyPark at Santa's Village. The location of the closest fire station in the Project vicinity is shown on Exhibit 4.14-1, *Public Services* and the staffing and equipment at each station identified above is outlined in Table 4.14-1.

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<sup>1</sup> A quintuple combination pumper (quint fire truck) is a fire apparatus that serves the dual purpose of an engine and a ladder truck. The quint has five functions that it provides: pump, water tank, hose, aerial device, and ground ladders.

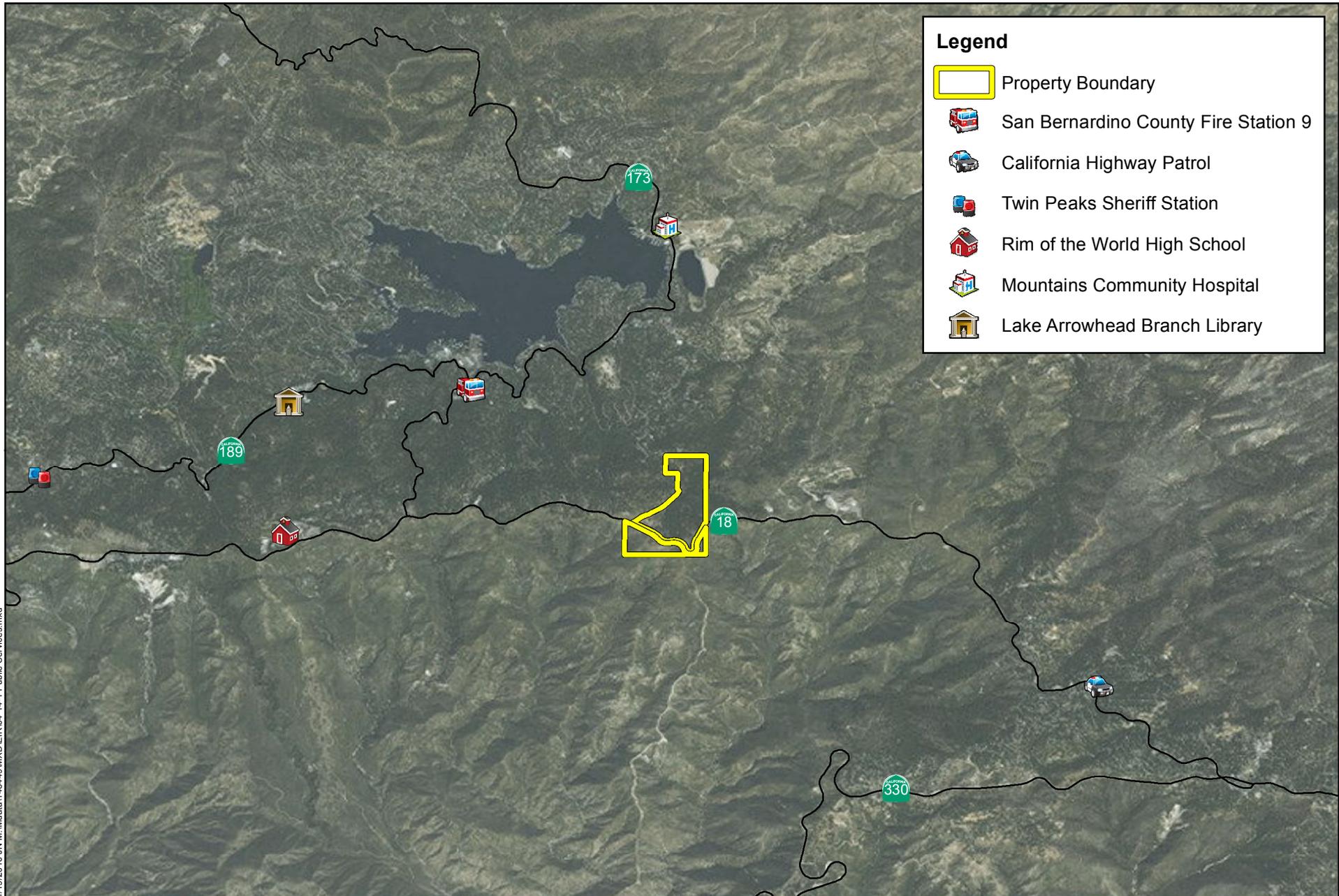
**Table 4.14-1: Fire Station Summary**

Station No.	Address/ Location	Distance from Project Site	Apparatus		Staffing
			Quantity	Equipment	
91	301 CA 173, Lake Arrowhead, CA 92352	Approximately 2 miles	1	Type 1 Engine	Captain, Engineer, 2 Firefighters/Paramedics
			1	Ambulance	
			1	Heavy Rescue	
			1	Squad	
			1	Snow Cat	
			1	Snow Loader	
92	981 N State Highway 173, Lake Arrowhead, CA 92352	Approximately 4 miles	1	Type 3 Engine	Captain, Engineer, Firefighter/Paramedic
			1	Ambulance	
			1	Water Tender	
			1	Fire Boat	
			1	Snow Loader	
			1	Utility Vehicle	
			1	Snow Cat	

Source: San Bernardino County Fire Department

Website: [http://www.sbcfire.org/fire\\_rescue/stations/default.htm](http://www.sbcfire.org/fire_rescue/stations/default.htm)

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**Legend**

-  Property Boundary
-  San Bernardino County Fire Station 9
-  California Highway Patrol
-  Twin Peaks Sheriff Station
-  Rim of the World High School
-  Mountains Community Hospital
-  Lake Arrowhead Branch Library



**Michael Baker**  
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Source: San Bernardino County, ESRI World Topographic Map

SKYPARK AT SANTA'S VILLAGE PROJECT  
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**Public Services**

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*MUTUAL AID*

The Fire Department has mutual aid agreements with all of the surrounding jurisdictions in San Bernardino County and Cal Fire (formerly the California Department of Forestry and Fire Prevention).

**POLICE**

San Bernardino County Sheriff's Department provides police protection services to the community of Sky Forest. The nearest San Bernardino County Sheriff's station to the Project site is located at 26010 Highway 189, in Twin Peaks, approximately 4 miles west of the Project site. Currently, the Twin Peaks Station has 17 sworn deputies, two detectives, five sergeants, and one captain. In addition, the station has seven professional employees (San Bernardino County Sheriff's website: <http://cms.sbcounty.gov/sheriff/PatrolStations/TwinPeaks.aspx>).

*MUTUAL AID*

The County Sherriff's Department operates under a mutual agreement with police agencies in the surrounding cities. This allows use of up to 50 percent of adjustment agency resources upon request and for automatic responses within zones of mutual aid. The unincorporated areas in the County are served by the San Bernardino Sherriff's Department, which operates from an office at 655 E. Third Street in the City of San Bernardino. The Sherriff's Department and the San Bernardino City Police Department provide mutual backup services upon request within both San Bernardino and unincorporated areas.

The California Highway Patrol (CHP) provides traffic patrol on state highways, which include SR-18, SR 189, SR-173 and SR-330, in the project vicinity. The CHP also provides emergency response backup to the San Bernardino City Police Department and the County Sherriff's upon request. The closest CHP office to the project site is located at 31230 CA-18, Running Springs, CA 92382, approximately 4.1 miles east from the site; refer to Exhibit 4.14-1, *Public Services*.

## SCHOOLS

The Rim of the World Unified School District provides school services for students in the Sky Forest area. Rim of the World High School is the closest school to the Project site, and is shown on Exhibit 4.14-1. The District consists of 4 elementary schools, 1 middle school, and 2 high schools. The District serves surrounding communities, including Sky Forest, Lake Arrowhead, Twin Peaks, Blue Jay, Cedar Glen, and Rim Forest. The California Department of Education indicates that 3,695 students were enrolled in the Rim of the World Unified School District in 2014-2015. Table 4.14-2, *School District Profile (2014-2015)* provides a profile of the school district enrollments.

The following Schools are near the Project site:

### High School(s)

- Rim of the World High school (nicknamed "Rim HS") – Approximately 2.5 miles west from Project site
- Mountain High School (alternative school) – Approximately 2.5 miles west from Project site

### Middle School(s)

- Mary Putnam Henck Intermediate School – Approximately 5.8 miles northwest from Project site

### Elementary School(s)

- Charles Hoffman Elementary School – Approximately 6.3 miles southeast from Project site
- Grandview Elementary School – Approximately 5.5 miles northwest from Project site
- Lake Arrowhead Elementary School – Approximately 5.3 miles north from Project site

- Valley of Enchantment Elementary School – Approximately 10 miles west from the Project site

**Table 4.14-2: School District Profile (2014-2015)**

School Type	Number	Enrollment	Full-Time Equivalent Teachers	Pupil-Teacher Ratio
Elementary	4	1,598	75	1:25
Middle	1	809	36	1:18
High	2	1,288	69	1:23
<b>Total</b>	7	3,695	180	1:66

Source: California Department of Education 2014 -2015  
Website: <http://dq.cde.ca.gov/dataquest/Enrollment>

### Library Services

The County of San Bernardino operates 33 libraries. The library facility that is closest to the Project site is the Lake Arrowhead Branch Library located at 27235 Highway 189 Bluejay, CA 92317, approximately 4 miles northwest of the Project site, as shown on Exhibit 4.14-1. Library Hours are: Monday – Wednesday 11:00 a.m. to 7:00 p.m., Thursday 10:00 a.m to 6:00 p.m., Saturday 9:00 a.m. to 5:00 p.m. This branch is closed Friday and Sunday.

### Medical Facility

The medical facility that is closest to the Project site is the Mountains Community Hospital located at 29101 Hospital Road Lake Arrowhead, CA 92352, approximately 4.8 miles north of the Project site, as shown on Exhibit 4.14-1.

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## REGULATORY FRAMEWORK

### FIRE PROTECTION AND EMERGENCY SERVICES

#### STATE

##### *THE CALIFORNIA FIRE CODE*

The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare from hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety assistance to fire fighters and emergency responders during emergency operations.

#### LOCAL

##### *SAN BERNARDINO COUNTY GENERAL PLAN*

#### FIRE PROTECTION

##### **Goal:**

- CI 16.** The County will protect its residents and visitors from injury and loss of life and protect property from fires through the continued improvement of existing Fire Department facilities and the creation of new facilities, but also through the improvement of related infrastructure that is necessary for the provision of fire service delivery such as water systems and transportation networks.

##### **Policies:**

- CI 16.1** Continue the consolidation efforts of the Fire Department to maintain the continued operation, services, facilities, and current infrastructure but also to ensure the provision of operations, services, facilities, and internal infrastructures into the future.

- CI 16.2** Create a Fire Master Plan that can be used to identify areas in the County that are in need of increased levels of fire service delivery and thereby identify geographic areas that are in need of infrastructure improvements so that those areas can take the necessary steps to improve that infrastructure and eventually can adequately support the commensurate improvement in fire service delivery.
- CI 16.3** Encourage development in areas that have adequate infrastructures for the provision of fire service, which include, but are not limited to, water systems capable of delivering appropriate fire flow, and transportation networks that can provide access for fire apparatus and other emergency response vehicles as well as provide efficient egress for evacuees.
- CI 16.4** Create Community Facilities Districts (CFDs) or other long-term financial instruments within proposed developments and areas available for development to provide a fair-share funding mechanism to support pro-rata increases for the provision of long-term fire protection. The CFDs should be designed to provide sustained long-term levels of staffing operations, equipment, and facilities. The CFDs should also be designed specifically to respond to the impacts on the related development and thereby to minimize the impact to the general fund and other existing funding mechanisms that support the Fire Department.

## LAW ENFORCEMENT

### *Local*

#### *SAN BERNARDINO COUNTY GENERAL PLAN*

### **Goal:**

- CI 17.** The County will provide adequate law enforcement facilities to deliver services to deter crime and to meet the growing

demand for services associated with increasing populations and commercial/industrial developments.

**Policies:**

- CI 17.1 Appropriately prioritize calls for service and seek sufficient staffing levels to ensure response times are reasonable and efforts to deter crime are optimized.
- CI 17.2 Seek and commit sufficient investigative resources for effective follow-up on criminal offenses.
- CI 17.3 Involve community members in crime deterrence and other public safety efforts through prevention programs, volunteer groups, and viable public information strategies.
- CI 17.4 Encourage interaction with local governments and community-based organizations to assess community concerns and expectations.
- CI 17.5 Staff and operate detention and correction facilities in a safe and secure manner, as required by law. Place an emphasis on programs for sentenced inmates that reduce rates of recidivism.
- CI 17.6 Ensure procedures for effective court security operations that are functional and appropriately balanced between judicial needs, state law, and department capability.
- CI 17.7 Assess and update training and equipment needs on a routine basis when possible to ensure policing methods are effectively executed while minimizing unnecessary liability.
- CI 17.8 Develop and coordinate contingency responses to disasters, mutual aid needs, search and rescue operations, and other emergencies in concert with allied agencies.
- CI 17.9 Respond and investigate coroner case deaths in a timely and thorough manner.

## EDUCATION

### *State*

#### **California Education Code**

School services provided in the Sky Forest and the Lake Arrowhead area are subject to the regulations of the California Education Code. The governing board of any school district is authorized to levy a fee or charge against any construction within the boundaries of a school district, for the purposes of funding new schools or renovating/expanding existing schools.

#### **Senate Bill 50**

Senate Bill 50 of 1998, also known as the "Leroy Greene School Facilities Act" establishes three levels of school impact fees:

- ◆ Level I fees set by law but are adjusted for inflation;
- ◆ Level II fees require developers pay for the complete local share of 50 percent of construction costs, and may be imposed by a school district on a yearly basis but only if certain conditions are met; and
- ◆ Level III fees require developers pay for 100 percent of construction costs, and are imposed if the state is no longer allocating bond funds.

The payment of school mitigation impact fees authorized by SB 50 is deemed to provide full and complete mitigation of development project impacts on school facilities.

### *Local*

#### *SAN BERNARDINO COUNTY GENERAL PLAN*

#### **Goal:**

- CI 19.** Prior to approving a General Plan Amendment that increases residential densities, the County will ensure that impacts to schools, libraries, and day-care facilities are adequately mitigated.

#### **Policy:**

- CI 19.1** Actively work with private, non-profit and public community services organizations to organize educational and community services concurrent with development.

**Goal:**

- CI 20.** The County will work with appropriate agencies to provide for convenient access to K-12 and higher educational opportunities for all, activities for youth, and programs for residents of all ages.

**Policy:**

- CI 20.1** Actively work with public school districts to organize educational and community services concurrent with development.

INFRASTRUCTURE*Local**SAN BERNARDINO COUNTY GENERAL PLAN***Goal:**

- CI9.** The county will ensure the quality of life by pacing future growth with the availability of public infrastructures.

**Policies:**

- CI 9.1** Control the timing and intensity of future development and ensure that future development is contingent on the provision of infrastructure facilities and public services.

**Programs**

1. Create a clear framework in the County Development Code that identifies the necessary appropriate

infrastructure required to support the density and intensity of proposed development.

- CI 9.2** Promote the least intensive uses in areas with minimal infrastructure facilities and public services. The more intensive uses are permitted in areas where urban level infrastructure facilities and public services currently exist or can reasonably be extended.

**Programs**

1. Periodically conduct an analysis of the supply and demand for infrastructure.

- CI 9.3** Adopt an update to the five-year Capital Improvement Program (CIP) annually consistent with this General Plan, listing the necessary improvements to the County's public services and facilities in collaboration with key service providers and the County Administrative Office. This plan will address the projected demand for public services countywide and within each planning area, and will identify the long-term financial trends and sources of funding for the major public service providers.

- CI 9.4** Ensure that new development pay a fair share of the costs to provide infrastructure facilities required to serve such development. If an applicant is required to pay more than a proportional share, reimbursement agreements or other mechanism shall be used.

**Programs**

1. Establish procedures to facilitate reimbursement by future development projects in cases where a new development is required to provide up front infrastructure in excess of its proportion share of need.

- CI 9.5** Make available or establish financial mechanisms (such as assessment and community facility districts) to most

efficiently spread the cost of necessary infrastructure improvements as determined by the local public agency over all development benefiting from such improvements. Provide legal written notice to all people affected by such financial mechanism cost.

- CI 9.6** Utilize fiscal impact analyses (FIA) to determine the County's ability to provide adequate services and facilities through the imposition of conditions of approval, fees, special taxes, financing mechanisms, etc., on new development. The FIA will provide guidance to County staff and County decision-makers on the project-specific requirements that may be placed on that individual development project.

**Programs**

1. Establish a standard format and requirement for FIAs. FIAs will address required public services and infrastructure including both short- and long-term County costs and revenues for all new commercial, industrial, or institutional developments of twenty acres or larger and residential development of 500 units or more in urban areas and 200 or more in rural areas. The Fiscal Impact Analyses will include both local and regional impacts. Where fiscal impact analyses identify impacts on the County's ability to continue providing services at their present level, appropriate mitigation measures shall be identified.
2. All projects with fewer than 500 residential units in urban areas, 200 residential units in rural areas or twenty acres of commercial, industrial, or institutional uses will be required to complete a questionnaire that can be used by staff to determine the need for additional analyses especially in regard to the cumulative impacts of new development

- CI 9.7** The County will continue to identify and update the services that are needed in each planning region in the County to guide the review and approval process for proposed development projects.

**Goal:**

- CI 10.** Ensure timely development of facilities and the maintenance of adequate service levels for these facilities to meet the needs of the current and future County residents.

**Policies:**

- CI 10.1** Ensure that adequate facility and service standards are achieved and maintained through the use of equitable funding methods.
- CI 10.2** Equitably distribute throughout the County new public facilities and services that increase and enhance community quality of life.

## IMPACT ANALYSIS AND MITIGATION MEASURES

### METHODOLOGY

An evaluation of the significance of potential impacts on public services must consider both direct effects to the resource as well as indirect effects in a local or regional context. Potentially significant impacts would generally result in the loss or degradation of a public service or conflict with Federal, State, or local agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially affect the resource on region wide basis.

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Project may have

a significant adverse impact on hazards/hazardous materials if it would do any of the following:

- 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:
  - Fire protection;
  - Schools;
  - Police protection;
  - Other public facilities.

## PROJECT IMPACTS AND MITIGATION

*Threshold: 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: fire protection, police protection, schools, parks, or other public facilities?*

**Impact 4.14-1      Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. This impact would be less than significant.**

### FIRE PROTECTION

The San Bernardino County Fire Department (SBCFD) provides fire service. The proposed Project would include construction of a restroom and laundry facility in the proposed campground site (south of SR-18). However, SBCFD already has significant resources in place in the Project area, as residential houses and commercial businesses populate it. Because of the well-known risk of fires in Southern California, the County has ensured that there is more than adequate fire protection in neighborhoods under its jurisdiction. Since no new housing will be constructed as a result of this Project, and therefore no new permanent residents added to the Sky Forest community, the Project

would not represent a potential need for expanded fire protection in the area, or affect service and response times. Therefore, impacts on fire service would be less than significant.

### **POLICE PROTECTION**

The San Bernardino County Sheriff's Department provides police protection for the Project site. The Department already provides police services to the Project site and, although there is the possibility of increased park usage as a result of the implementation of the proposed improvements, the nature of those services will not change as a result of the proposed renovation and additions and it is unlikely that additional deputies would be needed in the Project area.

### **SCHOOLS**

The Rim of the World Unified School District serves the students in Sky Forest and near the Project's vicinity. Because no new housing will be constructed as a result of this Project, and therefore no new residents added, the Project would have no effect on schools in the area.

### **OTHER PUBLIC FACILITIES**

Since no new housing will be constructed as a result of this Project, and therefore no new residents added to the Sky Forest community, the Project would have no effect on libraries in the area. There are no other aspects of public services that would be impacted by the proposed Project. Therefore, impacts would be less than significant in this regard.

### **CUMULATIVE IMPACTS**

Although the implementation of the Project may require increases in water usage due to the implementation of new restroom and laundry facilities, in addition to operation of the existing SkyPark at Santa's Village, these needs do not rise to a cumulatively significant level given existing water entitlements and the utilization of water wells on site. The new septic system, which proposed to be installed in the campsite to service the campgrounds, would have adequate capacity to handle anticipated wastewater usage as a result of the implementation of this Project. Further, no new housing or residents will

be added to the area as a result of the implementation of this Project, which would increase the demand for fire or police services or increase the use of schools and libraries. Fire and police protection services as well as schools and libraries within the unincorporated community of Sky Forest are currently considered adequate, and the proposed Project, in conjunction with other foreseeable development, would not increase the demand such that there would be a need for new or expanded fire or police protection services or stations, or schools or libraries. Therefore, cumulative impacts on fire and police protection services as well as schools and libraries would be considered less than significant.

## **4.15 RECREATION**

This chapter describes the environmental setting and analyzes potential impacts related to existing parks and recreation, as they pertain to implementation of the proposed Project.

### **ENVIRONMENTAL SETTING**

Sky Forest is an unincorporated community in the San Bernardino National Forest located along SR-18. Management of recreational amenities in this community is unique in which it requires coordination and cooperation between the U.S. Forest Service, San Bernardino County Regional Parks, and the Rim of the World (ROW) Recreation and Park District. The U.S. Forest Service manages the San Bernardino National Forest. The ROW Recreation and Park District provides quality parks, programs, and facilities to offer a range of services to the local mountain residents. These parks and facilities are maintained and owned by ROW Recreation and Park District and include Arrowhead Park & Tucker Field, Harich Field/Twin Peaks Rotary Centennial Park, Mountain Communities Senior/Community Center, multiple childcare sites, Robert Hootman Senior/Community Center, Firehouse Play Area, ROW Recreation and Park District Office, and a public restroom/parking complex.

Recreational needs specific to Sky Forest and other surrounding mountain communities are identified in the Open Space section of the Lake Arrowhead Community Plan. Priorities and opportunities were established through coordination with the ROW Recreation and Park District and the community. The Lake Arrowhead Community Plan addresses the community's desire for additional recreational facilities and recognizes Santa's Village as a potential site for recreational development.

Santa's Village at Sky Park opened Memorial Day weekend of 1955 as the first franchised amusement park in California. The idea of Santa's Village came from an article post about a place called the North Pole in upstate New York and after teaming with a local Crestline

residents, Glenn Holland and Leonard Ray, the perfect site to build the project was found. Business was going well until a series of events caused the parks closure in 1998. Most of the rides were sold in an auction and can be seen around the local community while the existing buildings remained. In 2003, Santa's Village was chosen as the staging and processing site for harvesting thousands of bark beetle infested logs. The proposed Project includes restoration of the exteriors of the existing historic buildings and repurposing of the interiors. The proposed Sky Park at Santa's Village project site is approximately 230 acres and the original amusement park makes up about 15 acres of the site. Reopening of Santa's Village amusement park would provide additional recreational activities for local residents as well as visitors to the mountain area.

## REGULATORY FRAMEWORK

### FEDERAL

The National Recreation and Parks Association (NRPA) published the following guidelines for communities to consider when planning various types of parks (e.g., regional, community, neighborhood, etc.).

- Community park 2 to 3 acres per 1,000 residents.
- Neighborhood park 1 to 2 acres per 1,000 residents.
- Mini-park 0.25 to 0.50 acres per 1,000 residents.

### STATE

#### *PUBLIC RESOURCES CODE*

- 5019.56** State recreation units consist of areas selected, developed, and operated to provide outdoor recreational opportunities. The units shall be designated by naming, in accordance with Article 1 (commencing with Section 5001) and this article relating to classification.

In the planning of improvements to be undertaken within state recreation units, consideration shall be given to compatibility of design with the surrounding scenic and environmental characteristics. State recreation units may be established in the terrestrial or non-marine aquatic (lake or stream) environments of the state and shall be further classified as one of the following types:

- a) State recreation areas, consisting of areas selected and developed to provide multiple recreational opportunities to meet other than purely local needs. The areas shall be selected for their having terrain capable of withstanding extensive human impact and for their proximity to large population centers, major routes of travel, or proven recreational resources such as manmade or natural bodies of water. Areas containing ecological, geological, scenic, or cultural resources of significant value shall be preserved within state wildernesses, state reserves, state parks, or natural or cultural preserves, or, for those areas situated seaward of the mean high tide line, shall be designated state marine reserves, state marine parks, state marine conservation areas, or state marine cultural preservation areas. Improvements may be undertaken to provide for recreational activities, including, but not limited to, camping, picnicking, swimming, hiking, bicycling, horseback riding, boating, waterskiing, diving, winter sports, fishing, and hunting. Improvements to provide for urban or indoor formalized recreational activities shall not be undertaken within state recreation areas.
- b) Underwater recreation areas, consisting of areas in the non-marine aquatic (lake or stream) environment selected and developed to provide surface and subsurface water-oriented recreational opportunities, while preserving basic resource values for present and future generations.

- c) State beaches, consisting of areas with frontage on the ocean, or bays designed to provide swimming, boating, fishing, and other beach-oriented recreational activities. Coastal areas containing ecological, geological, scenic, or cultural resources of significant value shall be preserved within state wildernesses, state reserves, state parks, or natural or cultural preserves, or, for those areas situated seaward of the mean high tide line, shall be designated state marine reserves, state marine parks, state marine conservation areas, or state marine cultural preservation areas.
- d) Wayside campgrounds, consisting of relatively small areas suitable for overnight camping and offering convenient access to major highways.

*QUIMBY ACT OF 1975*

California Government Code Section 66477, known as the Quimby Act, enacted in 1975 and amended in 1982, authorizes cities and counties to pass ordinances requiring developers set aside land, donate easements for conservation, or pay fees that can be applied to parkland uses. The land, fees, or any combination thereof is to be used solely for the purpose of developing new or rehabilitating existing recreational facilities. The use of revenues from the Quimby Act for operations and maintenance of facilities is not a permitted use. The Quimby Act set the standard of 3 to 5 acres per 1,000 residents as "adequate" open space/parkland acreage in jurisdictions.

**LOCAL**

*LAKE ARROWHEAD COMMUNITY PLAN*

Open Space

**Goal**

- LA/OS 1**      Develop parks and recreation facilities to meet the recreational needs of the community and visitors.

**LA/OS 2.1** In coordination with the Rim of the World Recreation and Park District and the community, establish priorities and identify opportunities for park development and establish a park and recreation plan for the Lake Arrowhead community. Priorities for consideration during the development of a park and recreation plan, as of the date of adoption of this plan, are as follows:

- a) The following properties have been identified by the community as well suited for recreational development and should be researched as potential sites for recreational development.
  - Santa's Village
  - Crest Park
  - Dam property, behind Mountain Community Hospital
  - Children's Forest
- b) The plan shall address the following existing facilities, services and programs, and shall provide for the continued operation and the potential enhancement of these services and facilities commensurate with growth.
  - Community Senior Center in Twin Peaks
  - Ball Field in Twin Peaks
  - Playground in Twin Peaks
  - Childcare at school sites v. Preschool in Rim Forest
  - District offices, classrooms and conference room in Rim Forest
- c) The plan shall address the need for ongoing partnerships with the following groups:
  - Rim of the World Unified School District

- Boys and Girls Club
  - Dam Commission
  - United States Forest Service
  - County Regional Parks Department
  - Chamber of Commerce
  - Developers
  - Builders and Contractors
- d) The plan shall evaluate the need for development and expansion of staff positions serving the Rim of the World Recreation and Park District.
- e) The plan shall establish ongoing revenue generating programs. The following funding mechanisms shall be considered:
- Grants
  - Fundraisers
  - Sponsors
  - Ballot Measure to increase park fee
  - Development/permit fees for new construction and remodels

**Goal:**

**LA/OS 3** Establish a community-wide trail system.

**LA/OS 3.1** Support coordination between the community and the San Bernardino County Trails and Greenways Committee in their effort to develop and maintain a system of public trails for hiking, bicycling and horseback riding. Particular attention shall be given to providing safe and convenient travel, and where feasible provide connections to the local trail system.

- LA/OS 3.2** Establish a plan for the development of a multi-purpose (pedestrian, bicycle, and equestrian) trail system within the plan area. The plan shall incorporate the following recommendations:
- a) Where feasible pursue opportunities to separate pedestrian/bicycle/equestrian traffic from motorized vehicle traffic.
  - b) Provide trail heads that link regional trails and those on National Forest System lands to those in recreational areas, residential areas, neighborhood trail systems and commercial nodes.

## IMPACT ANALYSIS AND MITIGATION MEASURES

### METHODOLOGY

When considering the significance of an individual impact, the EIR considers the existing local, State and Federal regulations, laws and policies in effect, including applicable General Plan policies. For purposes of this analysis, the recreation study area is confined to the proposed Project study area described in Chapter 3, *Project Description*, of this EIR.

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Plan may have a significant adverse impact on recreation if it would do any of the following:

- 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;
- 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.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>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?</i>
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**Impact 4.12-1**      **Implementation of the Project would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. This impact would be *less than significant*.**

This proposed Project would not directly increase the use of existing neighborhood and regional parks or other recreational facilities because the proposed Project does not include new residential development which would increase the population in the area that would utilize existing regional and neighborhood parks or other recreational facilities in the area.

If any of the existing recreational amenities were being removed or downsized by a project then it would be expected that existing users would go to other remaining facilities. As the proposed Project will not result in removal or reduction of any existing facilities it will not indirectly increase the use of existing neighborhood and regional parks or other recreational facilities. As the proposed Project will not result in the direct or indirect increase in use of existing recreational facilities it will result in substantial physical deterioration of these facilities.

Conversely, the proposed Project would provide new recreational opportunities as identified below:

### *TRAILS*

#### FANTASY FOREST TRAIL

The Fantasy Forest Trail is an existing trail that was used as a nature trail during the parks original years of operation. It will be open during the operating hours of the park and lit as a nighttime forest walk. It would be the only trail available after sun down and is very limited in its proximity to the park and distance. The trail distance is

approximately 1/4 mile and is an interactive lighting attraction at night. The lighting attraction includes lights with various colors, patterns, and intensities that will be used to illuminate the forest immediately adjacent to the trail. The interactive component is movement sensors on the lights so that as visitors are walking down the trail additional lights are activated when activated by the visitors.

#### MULTI-USE TRAIL

This is open for bicycle, wheel chair, pedal assist, and pedestrian traffic. This trail is specifically designed to accommodate special needs. It does not include motorized vehicles with the exception of electric assist vehicles for special needs.

#### HIKING TRAILS

This is a special use trail designed for hiking only. It is a single track trail not to exceed 36 inches in width. Used primarily for recreation, however, the use of signage, fencing and other forms of structures and materials are used for educational purposes.

#### MOUNTAIN BIKE TRAIL

This is a special use trail for bicycles only. This trail is a single track trail designed for "one way" directional use. Special features are implemented to include log crossings, water bars for slope erosion, safety rail, and riding features such as protective berms and wood features.

#### WILDERNESS ADVENTURE/ZIPLINE AND AERIAL PARK

This feature would include ziplines, rope courses, adventure swings, climbing walls, balance features, log crossings, and exploration trails.

#### FOREST PLAYGROUND

This feature would include bridges and swings. The playground would also provide seating; natural playscapes and sensory challenges such as log walks, stepping-stones and exploration.

#### SKYBIKE MONORAIL

The existing bumblebee ride would be converted to a pedal operated bike monorail that would traverse the southern portion of the park. Existing infrastructure will be used. The bumblebee cars will be replaced with pedal operated bikes.

FLY FISHING LAKE AND STREAM

Recreational fishing and trout stocking are planned uses of the existing on-site pond and additional three ponds (water and sediment control basins) that will be created as part of the Hencks Meadow restoration. Fly-fishing clinics, guides and lessons, and fly-fishing instruction would be offered at the site's improved and existing reservoir/pond system. The on-site ponds and connecting stream would be stocked with rainbow trout.

HIKING AND TOURS

Eco-tours, education, and wildlife would be offered. The project will promote wildlife and habitat education. Job skills will be introduced through "Pathways" an ongoing ROP program through local school districts. Ecotourism involving bird watching blinds, trails and assisted programs will be implemented to educate the public and students on the importance of wildlife preservation.

SKYPARK CAMPGROUND

The campground is proposed to be located on the south side of SR-18. The campground would provide accommodations and approximately 105 campsites for RV and tent camping.

As the proposed Project includes new recreational opportunities it is anticipated that the current use of other existing regional and neighborhood parks by the mountain communities may even be lightened with the reopening.

<i>Threshold:</i>	<i>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?</i>
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**Impact 4.12-2**      **Implementation of the Project does include recreational facilities and does not include construction of additional amenities which may have an adverse physical effect on the environment. However, with implementation of mitigation measures identified in other sections of this DEIR this impact would be *less than significant*.**

Many of the proposed amenities and associated improvements are located within the already developed Santa's Village attraction and parking areas or other areas heavily disturbed by previous uses including the storage of bark beetle invested timber and therefore would not adversely affect any naturally occurring sensitive resources (biological, archaeological, etc.). The following amenities and improvements are located in already developed and/or disturbed areas:

- Santa's Village/Winter Attractions,
- Retail/Restaurants/Wedding Event Center,
- Restrooms,
- Parking lot,
- Campground,
- Skybike monorail,
- Forest playground,
- Fly fishing lake and stream.

There are existing trails and dirt roads throughout the forested area of the site. They are a result of historic uses. Hiking and tours will occur on existing and proposed additional trails. The Mountain Bike Park includes use of existing trails and dirt roads as well as proposed additional trails to be developed in the future. The Wilderness Adventure/Zipline and Aerial Park is located in the forested area adjacent to and north of the Santa's Village attraction. The development of the zipline structures and additional hiking and mountain bike trails may have direct and indirect impacts on sensitive biological and cultural resources and hydrology from light, noise, increased erosion. These potential impacts are discussed in more detail in Section 4.4 Biological Resources, 4.5 Cultural Resources, and 4.9 Hydrology and Water Quality. Construction and operation of the proposed Project is evaluated throughout the other Environmental Analysis sections of this DEIR (Sections 4.1-4.17), for example emissions and noise from construction equipment is evaluated in detail in Section 4.3 Air Quality and Section 4.12 Noise. Implementation of mitigation measures identified in other sections of this DEIR

are required to ensure that construction and operation of the proposed Project will not result in substantial adverse physical effects on the environment.

## **CUMULATIVE IMPACTS**

The cumulative effect of other residential development projects in the mountain communities could result in increased population and use and associated deterioration of existing recreational amenities in the region. However, as outlined above the proposed Project will increase recreational opportunities which would not result in an increased use of other recreational facilities but conversely, may result in less use of other parks. Therefore, the proposed Project will not result in cumulative impacts associated with deterioration of other recreational facilities in the region. Cumulative impacts from the construction and operation of the proposed Project is evaluated throughout the other Environmental Analysis sections of this DEIR (Sections 4.1-4.17).

**4.16 TRANSPORTATION AND CIRCULATION**

This section describes regulations related to transportation and circulation and the existing transportation systems in the Project area; identifies significance criteria for impacts on transportation and circulation; and evaluates potential impacts associated with the proposed Project. Information given in this section is based on transportation and circulation information obtained from available public resources including the *County of San Bernardino General Plan (2007)* and *County of San Bernardino General Plan Transportation Element (2007)*. A *Traffic Impact Analysis (TIA)* (Gibson Transportation Consulting Inc., May 2016) was prepared for the Project and is included in Appendix I.

As required by the County of San Bernardino (County), the TIA followed methodology and assumptions that have been established in conjunction with *Traffic Impact Study Guidelines* (County of San Bernardino Department of Public Works Traffic Division, April 2014), as well as with the California Department of Transportation (Caltrans). The TIA provides a comprehensive analysis of the potential traffic impacts associated with the Project. The *Scope for Traffic Study* was prepared in consultation with the County.

**ENVIRONMENTAL SETTING****EXISTING CONDITIONS***PROJECT STUDY AREA*

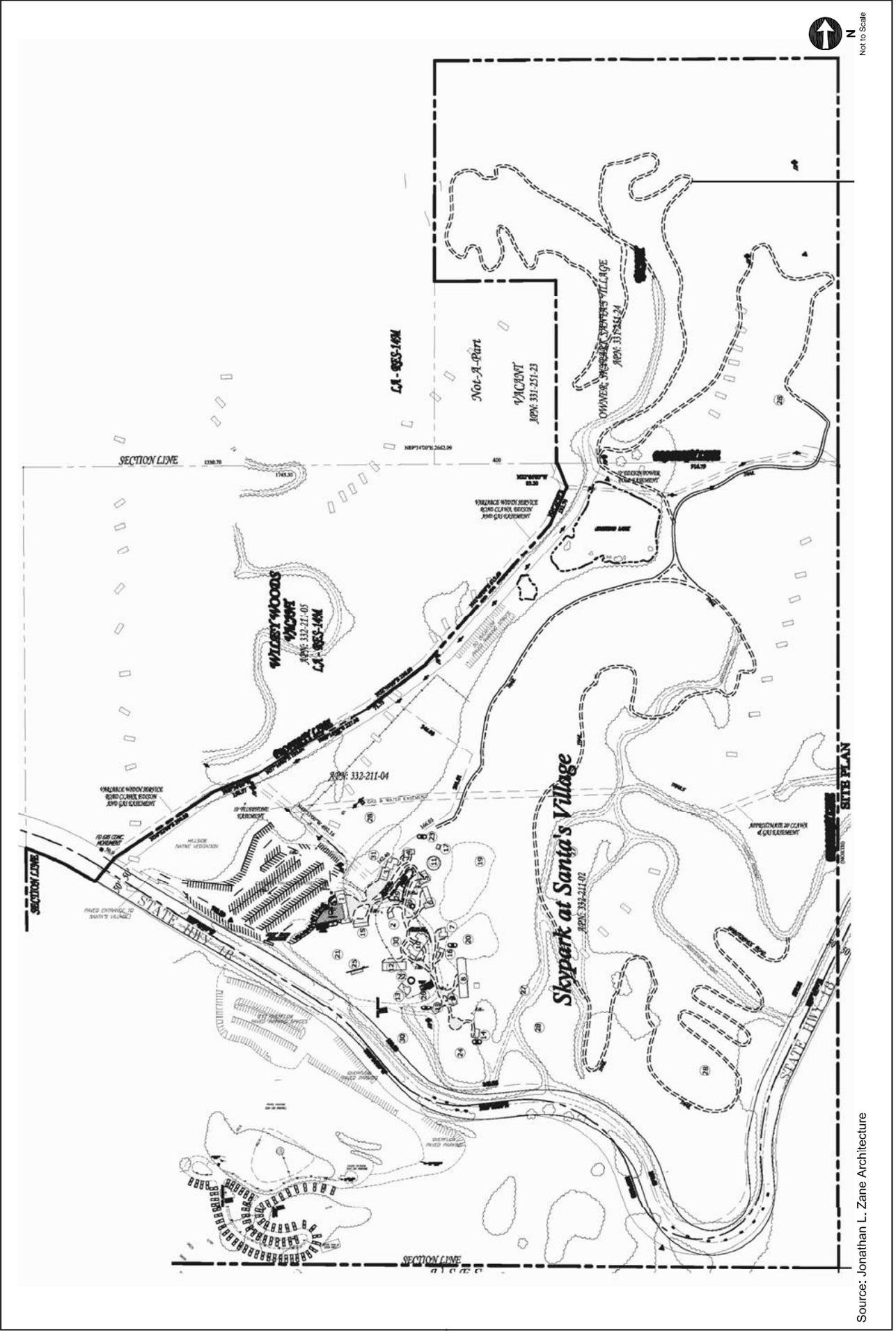
The Project Site is located on State Route (SR-18) in the unincorporated community of Skyforest, near Kuffel Canyon Road in the County. The Project Site is surrounded by mostly forest and mountainous terrain, with residential development to the west. The Project study area is shown in Exhibit 4.16-1: *Project Study Area*. For the purpose of the Project's transportation analysis, the Project study area consists of the following six (6) intersections; all six intersections are within the jurisdiction of the County and Caltrans:

1. SR-189 & SR-18 (Unincorporated Community of Crestline-Caltrans)
2. Daley Canyon Road & SR-18 (Unincorporated Community of Rimforest-Caltrans)
3. SR-173 & SR-18 (Unincorporated Community of Lake Forest-Caltrans)

4. Kuffel Canyon Road & SR-18 (Unincorporated Community of Lake Forest-Caltrans)
5. Project Driveways & SR-18 (Unincorporated Community of Sky Forest-Caltrans)
6. Live Oak Drive & SR-18 (Unincorporated Community of Running Springs-Caltrans)

#### *EXISTING ROADWAY CIRCULATION SYSTEM*

Primary regional access to the Project Site is provided via SR-18, which generally runs in an east-west direction. SR-18 is a two-lane undivided state highway that traverses the Project Site (Santa's Village and parking lot are located on the north side of SR-18 and a separate parking area and Skypark campground are located on the south side of SR-18). Primary Project Site access is provided via two driveways connecting to both parking lots. The roadways in study area vicinity are under the jurisdiction of the County and Caltrans. The following is a detailed description of roadways in the Project study area. Exhibit 4.16-2: *Existing and Existing Plus Project Intersection Lane Geometry*, shows the existing lane geometry, as well as the lane geometry of the proposed Project access intersections.



Source: Jonathan L. Zane Architecture

SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT

**Project Study Area**

Exhibit 4.16-1



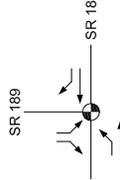
Source: Gibson Transportation Consulting

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**LEGEND**

-  Traffic Signal
-  Stop Sign

1. State Route 189 & State Route 18

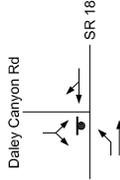


**EXISTING CONDITIONS  
(YEAR 2015)**

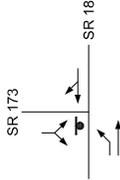
**OPENING YEAR CONDITIONS  
(YEAR 2016)**

**WITH MITIGATION  
CONDITIONS**

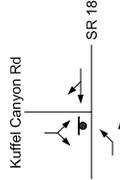
2. Daley Canyon Road & State Route 18



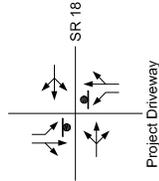
3. State Route 173 & State Route 18



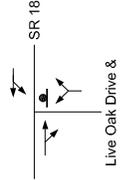
4. Kuffel Canyon Road & State Route 18



5. Project Driveway & State Route 18



6. Live Oak Drive & State Route 18



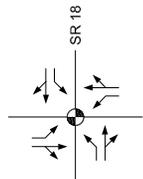
Same as Existing Conditions

Project Driveway

Project Driveway

Project Driveway

Same as Existing Conditions



Project Driveway

Project Driveway

Project Driveway

Project Driveway

11/2/2015 JN:M:mdara\148449\MXD\ERF

# Existing and Existing Plus Project (Opening Year Conditions) Intersection Lane Geometry

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**SR-18** is a two-lane undivided roadway traveling in an east-west direction. SR-18 provides both local and regional access and traverses the Project Site (Santa's Village and parking lot north of SR-18, and Skypark Campground and parking south of SR-18). The posted speed limit ranges between 35 and 55 miles per hour; on-street parking is generally prohibited.

**SR-189** is a two-lane undivided roadway traveling in a north-south direction approximately six (6) miles west of the Project Site and transitions into an east-west direction roadway as it reaches the unincorporated community of Crestline. SR-189 provides both local and regional access to the Project Site from the unincorporated communities of Lake Gregory as well as Twin Peaks. The posted speed limit is 35 mph; on-street parking is generally prohibited. SR-189 provides access to the I-210 freeway.

**Daley Canyon Road** is a two-lane undivided roadway traveling in a north-south direction. Daley Canyon Road intersects SR-18 approximately three (3) miles from the Project Site. The posted speed limit on Daley Canyon Road is generally 35 mph; on-street parking is generally prohibited.

**SR-173** is a two-lane undivided roadway traveling in a north-south direction approximately 1.5 miles west of the Project Site. SR-173 intersects SR-18 which provided access to the unincorporated community of Lake Arrowhead. The posted speed limit on SR-173 is generally 35 mph; on-street parking is generally prohibited.

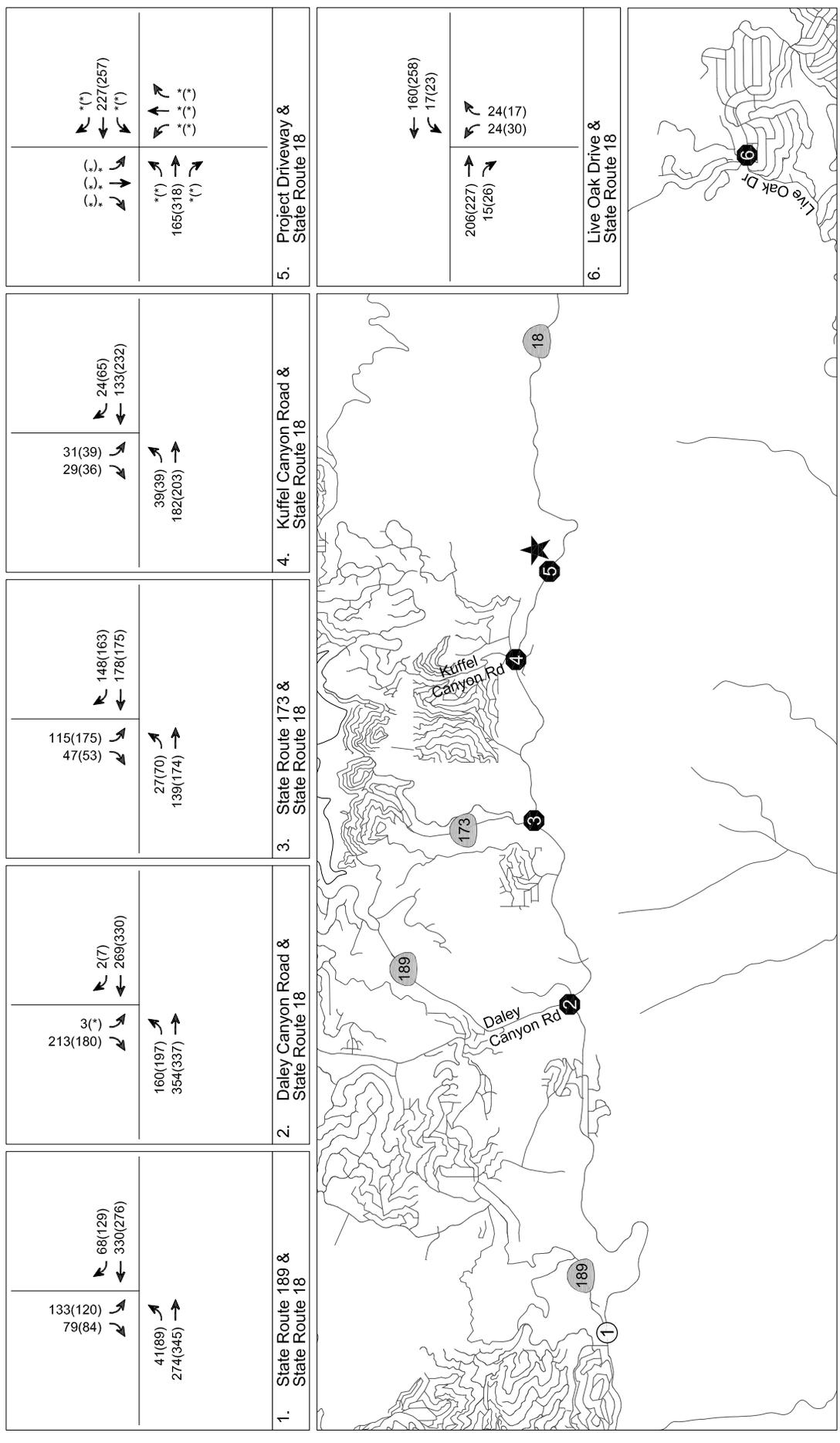
**Kuffel Canyon Road** is a two-lane undivided roadway traveling in a north-south direction and provides local access to the Project Site which is approximately 1.5 miles from the Project Site. The posted speed limit on Kuffel Canyon Road is generally 30 mph; on-street parking is generally prohibited.

**Live Oak Drive** is a two-lane undivided roadway traveling in a north-south direction. It links SR-330 with SR-18 and provides both local and regional access to the Project Site through SR-330. The posted speed limit on Live Oak Drive is 25 mph; on-street parking is generally prohibited.

*EXISTING TRAFFIC VOLUMES*

Existing Saturday and Sunday A.M. and P.M. peak period traffic volume counts were collected in December 2014 at six (6) study intersections. Additionally, intersection turning movements were collected at five (5) study intersection on a typical Saturday and Sunday. Existing traffic volumes and turning movements were collected from 9:00 A.M. to 11:00 A.M. and from 2:30 P.M. to 4:30 P.M. These counts were grown by 1% to reflect year 2015 conditions. The existing SR-18 volumes at the Project driveways were determined based on the volume at the adjacent intersection of Kuffel Canyon Road & SR-18.

Exhibit 4.16-3: *Existing Saturday A.M. and P.M. Peak Hour Intersection Volumes*, shows the existing A.M. and P.M. peak hour intersection volumes and Exhibit 4.16-4: *Existing Sunday A.M. and P.M. Peak Hour Intersection Volumes*, shows the existing A.M. and P.M. peak hour intersection volumes. Detailed traffic count data is contained in Appendix C of the TIA Report, included as Appendix I of this EIR.



**LEGEND**

- ★ Project Site
- # Signalized Study Intersection
- # Unsignalized Study Intersection

X(X) 9:00 AM - 10:00 AM (3:00 PM - 4:00 PM)  
 Peak Hour Traffic Volumes  
 \* Negligible Volume

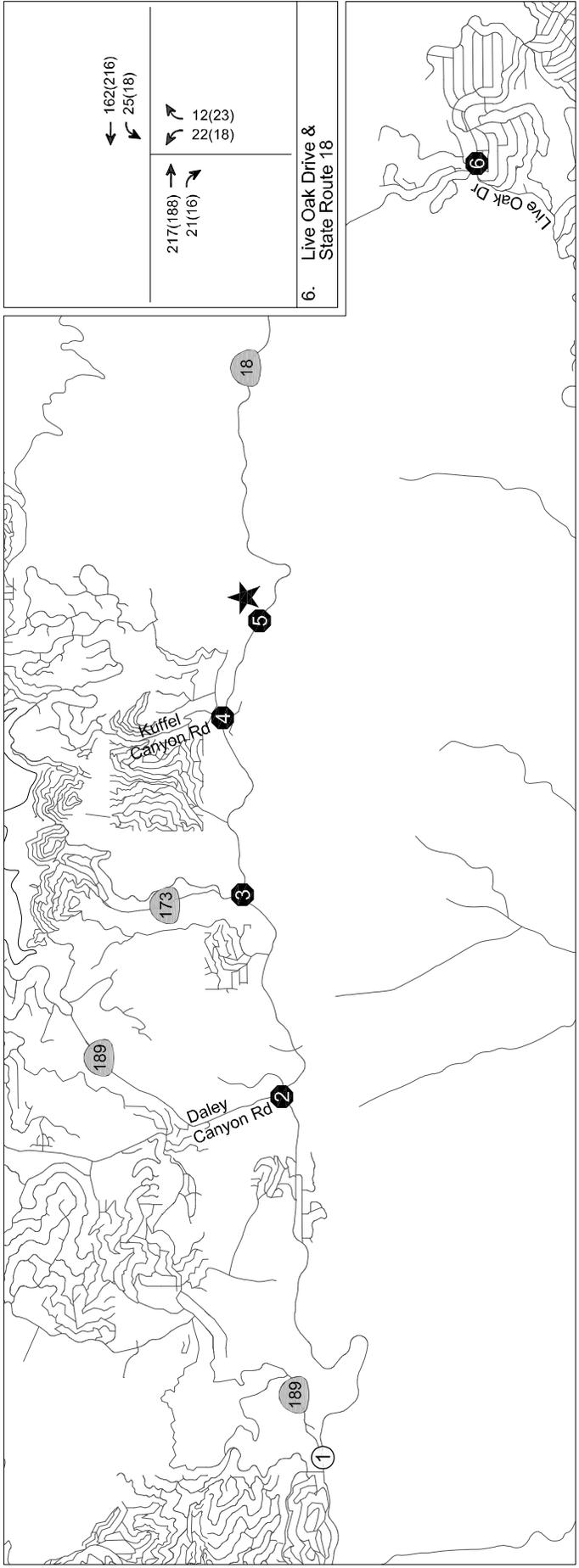
# Existing Saturday A.M. and P.M. Peak Hour Intersection Volumes



Source: Gibson Transportation Consulting

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<p>112(116) 136(91)</p> <p>85(102) 365(422)</p>	<p>51(104) 227(283)</p> <p>101(142) 289(288)</p>	<p>181(181)</p> <p>*(4)</p> <p>*(*)</p> <p>296(313)</p>	<p>70(55) 148(193)</p> <p>117(126) 46(1)</p> <p>135(138) 131(167)</p>	<p>47(51) 34(30)</p> <p>39(47) 135(173)</p>	<p>23(33) 174(159)</p> <p>189(234) *(*)</p>	<p>*(*) 235(227)</p> <p>*(*)</p>	<p>189(234) *(*)</p>		
<p>1. State Route 189 &amp; State Route 18</p>		<p>2. Daley Canyon Road &amp; State Route 18</p>		<p>3. State Route 173 &amp; State Route 18</p>		<p>4. Kuffel Canyon Road &amp; State Route 18</p>		<p>5. Project Driveway &amp; State Route 18</p>	



**LEGEND**

- ★ Project Site
- Ⓝ Signalized Study Intersection
- Ⓜ Unsignalized Study Intersection
- X(X) 9:00 AM - 10:00 AM (3:00 PM - 4:00 PM) Peak Hour Traffic Volumes
- \* Negligible Volume

# Existing Sunday A.M. and P.M. Peak Hour Intersection Volumes

Source: Gibson Transportation Consulting



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*EXISTING LEVELS OF SERVICE (LOS)*

Tables 4.16-1 and 4.16-2 summarize the existing study intersection LOS for Saturday A.M. and P.M. peak hour study intersection conditions, and LOS for Sunday A.M. and P.M. peak hour conditions, respectively. LOS Detailed 2000 Highway Capacity Model (HCM) methodology calculation sheets for existing conditions and all analysis scenarios are contained in Appendix B of the TIA Report, included as Appendix I of this EIR. As shown in Table 4.16-1, during the Saturday A.M. peak hour conditions, all the intersections operate at a LOS C or better. While during the A.M. peak hour, all the intersections operate at a LOS B or better. Table 4.16-2, shows the Sunday A.M. and P.M. Peak Hour LOS conditions in which all intersection operate at an LOS C or better.

**Table 4.16-1: Existing Conditions (Year 2015) Saturday Peak Hour Intersection LOS**

Study Intersection	Jurisdiction	Peak Hour	Existing Conditions	
			Delay (sec)	LOS [a]
1. SR-189 & SR-18 [b]	Crestline-Caltrans	A.M.	14.2	B
		P.M.	13.9	B
2. Daley Canyon Road & SR-18 [c]	Rimforest-Caltrans	A.M.	12.4	B
		P.M.	12.4	B
3. SR-173 & SR-18 [c]	Lake Forest-Caltrans	A.M.	13.9	B
		P.M.	20.8	C
4. Kuffel Canyon Road & SR-18 [c]	Lake Forest-Caltrans	A.M.	10.9	B
		P.M.	12.5	B
5. Project Driveways & SR-18 [c][d]	Sky Forest-Caltrans	A.M.	0.0	A
		P.M.	0.0	A
6. Live Oak Drive & SR-18 [c]	Running Springs-Caltrans	A.M.	10.9	B
		P.M.	12.4	B

**Note:**

[a] All locations analyzed using HCM methodology

[b] Signalized intersection

[c] Unsignalized intersection

[d] Based on Existing cross-section of SR-18

**Table 4.16-2: Existing Condition (Year 2015) Sunday Peak Hour Intersection LOS**

Study Intersection		Jurisdiction	Peak Hour	Existing Conditions	
				Delay (sec)	LOS [a]
1.	SR-189 & SR-18 [b]	Crestline-Caltrans	A.M.	15.9	B
			P.M.	15.6	B
2.	Daley Canyon Road & SR-18 [c]	Rimforest-Caltrans	A.M.	11.9	B
			P.M.	12.6	B
3.	SR-173 & SR-18 [c]	Lake Forest-Caltrans	A.M.	14.8	B
			P.M.	16.4	C
4.	Kuffel Canyon Road & SR-18 [c]	Lake Forest-Caltrans	A.M.	11.0	B
			P.M.	11.7	B
5.	Project Driveways & SR-18 [c][d]	Sky Forest-Caltrans	A.M.	0.0	A
			P.M.	0.0	A
6.	Live Oak Drive & SR-18 [c]	Running Springs-Caltrans	A.M.	11.4	B
			P.M.	10.8	B

**Note:**

- [a] All locations analyzed using HCM methodology
- [b] Signalized intersection
- [c] Unsignalized intersection
- [d] Based on Existing cross-section of SR-18

*EXISTING TRANSIT SERVICE*

Fixed-route public transportation services in the Project area are currently provided by the Mountain Transit. Exhibit 4.16-5: *Existing Transit Routes*, illustrates transit routes serving the Project area. Mountain Transit Route 4 provides service in the Project vicinity and travels east-west on SR-18 and north-south on SR-173. The transit service travels from Lake Arrowhead to Running Springs via SR-18 and SR-173. Route 2 and “Rim Off the Mountain” routes also serve the adjacent communities leading up to the Project Site. The route operates Monday through Friday, and since the peak demand for the Project is forecast to occur on the weekends, no additional transit analysis was conducted.

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*EXISTING BICYCLE FACILITIES*

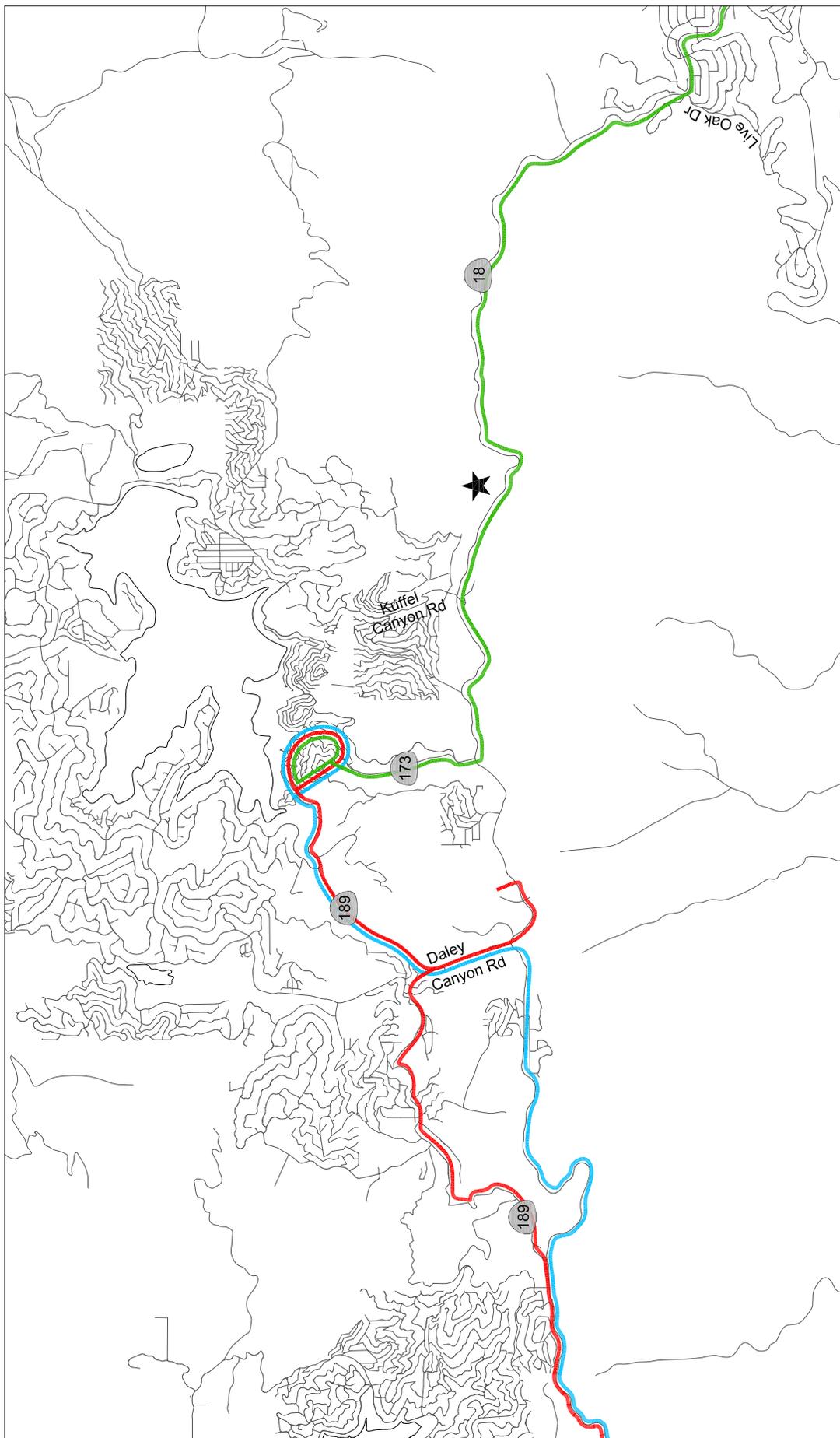
Bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic and offering a safer environment for both cyclists and motorists. Bicycle routes are identified as bicycle-friendly streets where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes are preferably located on collector and lower volume arterial streets.

Bicycle facilities are classified based on a standard typology, which is described in further details below:

- **Class I Bikeways (Bicycle Paths)** provide a separated right-of-way for bicycle travel that is typically shared with pedestrians and provides a 10- to 12-foot-wide path. Bike path intersections are usually minimized, and street crossings often require special treatment.
- **Class II Bikeways (Bicycle Lanes)** provide on-street right-of-way in the form of a striped lane for the exclusive use of bicyclists, except where right-turning vehicles are allowed to encroach. Bicycle lanes are typically 5 feet wide and located to the right of vehicular travel lanes.
- **Class III Bikeways (Bicycle Routes)** are signed routes for use by bicyclists without the benefit of allocated right-of-way. Bicyclists share lanes with motor vehicles. Bike routes are typically designated along streets with wider curb lanes or are otherwise better suited for bicycle travel.
- **Class III Bikeways (Bicycle Friendly Streets)** are primarily on collector and local roadways. These corridors generally parallel major commercial corridors, and have the potential to provide access to local destinations and provide connections to other bicycle facilities.

Based on the *San Bernardino County Non-Motorized Transportation Plan* (San Bernardino Associated Governments, May 2014), no bicycle lanes or routes currently exist in the Study Area.

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LEGEND

- ★ Project Site
- RIM Route 2
- RIM Route 4
- RIM Off the Mountain



# Existing Transit Routes



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*EXISTING PEDESTRIAN FACILITIES*

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile. These attributes are quantified by WalkScore.com, which calculates the walkability of a specific address by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel and assigns a score out of 100 points. With the limited commercial businesses and cultural facilities in the vicinity, the Project Site is rated with a score of 9 of 100 possible points (as of January 29, 2014) and defined as "Car-Dependent, meaning that almost all errands require a vehicle." No sidewalks currently exist on SR-18. None of the study intersections in the Study Area provide marked pedestrian crosswalks; however, there are no posted signs prohibiting pedestrian crossings at the intersections.

## **REGULATORY FRAMEWORK**

### **FEDERAL**

No Federal plans, policies, regulations, or laws related to transportation and circulation are applicable.

### **STATE**

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining all State-owned roadways, including those in San Bernardino County. Federal highway standards are implemented in California by Caltrans. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways. The Project area includes three (3) roadway that fall under Caltrans' jurisdiction; State Route 18 (SR-18), State Route 173 (SR-173), and State Route 189 (SR-189).

Caltrans' construction practices require temporary traffic control planning during any time the normal function of a roadway is suspended (Caltrans, 2006). In addition, Caltrans requires that permits be obtained for transportation of oversized loads and transportation of certain materials and for construction-related traffic disturbance. Caltrans regulations would apply to construction within and immediately adjacent to

roadways, as well as the transportation of construction crews and construction equipment throughout the action area (Caltrans, 2007).

*CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)*

In accordance with CEQA requirements, the Project's TIA considers the effects of the Project in relation to other developments either proposed, approved, or under construction in the Study Area.

**REGIONAL**

*SAN BERNARDINO ASSOCIATED GOVERNMENTS (SANBAG)*

CONGESTION MANAGEMENT PROGRAM (CMP) OF THE COUNTY OF SAN BERNARDINO  
CIRCULATION AND INFRASTRUCTURE ELEMENT

The Congestion Management Program (CMP) is a State-mandated program enacted by the state legislature to address the increasing concern that urban congestion is affecting the economic vitality of the State and diminishing the quality of life in some communities. Within San Bernardino County, SANBAG is responsible for planning and managing vehicular congestion and coordinating regional transportation policies.

The procedures in the 2000 Highway Capacity Manual (HCM) were adopted as the LOS procedures to be utilized in analyzing CMP facilities. Through the use of traffic impact analysis (TIA) reports and Comprehensive Transportation Plan (CTP) model forecasts, the CMP evaluates proposed land use decisions to ensure adequate transportation network improvements that are developed to accommodate future growth in population. If a CMP facility is found to fall below the level of service (LOS) standard, either under existing conditions or future conditions, a deficiency plan must be prepared, adopted, and implemented by local jurisdictions that contribute to such situations. Annual monitoring activities provide a method of accountability for those local jurisdictions required to mitigate a network facility with substandard LOS. While this inter-jurisdictional approach provides political and technical consistency for future development within the County, the CMP is only a mechanism to be used to guide efforts in a more efficient manner. It is not to be considered a replacement to the Regional Transportation Plan (RTP).

The CMP's LOS standard requires all CMP segments to operate at LOS E or better, with the exception of certain facilities; however, there are no CMP arterial monitoring intersections in the Project vicinity and, thus, no CMP analysis was performed.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (SCAG) 2012–2035 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY (2012-2035 RTP/SCS)

The 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS) presents a long-term vision for the region's transportation system. Specific goals within the 2012–2035 RTP/SCS are intended to link the issue of mobility with the promotion of economic development, protection of the environment, reductions in energy consumption, the creation of transportation-friendly development patterns, and encouragement of fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. The 2012–2035 RTP/SCS places a greater emphasis on sustainability and integrated planning compared to previous versions of the RTP and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of this new approach, the 2012–2035 RTP/SCS establishes commitments to: reduce emissions from transportation sources in order to comply with Senate Bill (SB) 375; improve public health; and meet the National Ambient Air Quality Standards.

**LOCAL**

*SAN BERNARDINO COUNTY GENERAL PLAN*

MOUNTAIN REGION GOALS OF THE CIRCULATION AND INFRASTRUCTURE ELEMENT

**Goals:**

- |               |  |
|---------------|--|
| <b>M/CI 1</b> | Ensure a safe and effective transportation system that provides adequate traffic movement while preserving the mountain character of the region. |
| <b>M/CI 2</b> | Provide adequate parking for both residents and visitors.  |
| <b>M/CI 3</b> | Protect the designed vehicular capacity of all mountain roads.   |
| <b>M/CI 4</b> | Ensure that infrastructure improvements are compatible with the natural environment of the region.   |

- 
- M/CI 1.1** The County shall ensure that all new development proposals do not degrade Levels of Service (LOS) on State Routes and Major Arterials below LOS C during non-peak hours or below LOS D during peak-hours in the Mountain Region.
- M/CI 1.2** Design roads to follow natural contours, avoid grid pattern streets, minimize cuts and fills and, minimize disturbance of natural resources and trees wherever possible.
- M/CI 1.3** Design road sections for mountain roads to be flexible in terms of required right-of-way widths and roadway widths. However, existing two-lane roads should be maintained. Road widening should be limited to safety type improvements and those that would facilitate flow such as turning lanes, passing lanes, intersection widening and shoulder widening.
- M/CI 1.4** Preservation and protection of sensitive habitats shall have priority over road location, relocation, or realignment, when other practical alternatives are available.
- M/CI 1.5** To the maximum extent possible, use alternatives to the construction of new traffic signals where they can be shown to benefit roadway capacity and are compatible with the character of the mountain region.
- M/CI 1.6** Require all private roads to be maintained by a property owners association. This may include keeping the roadways passable through maintenance, snow removal and enforcement of the no parking within minimum access roadway.
- M/CI 1.7** Require all private roads to be maintained by a property owners association. This may include keeping the roadways passable through maintenance, snow removal and

- enforcement of the no parking within minimum access roadway.
- M/CI 1.8** Pave roads adjacent to the nearest County maintained road, where practical and cost-effective.
- M/CI 1.9** Require school bus stop shelters as needed, when road improvement or widening is required as part of an adjacent development.
- M/CI 1.10** Support the development of park and ride transit service in the mountain communities.
- M/CI 1.11** When population and residential densities permit or warrant, develop shuttle services from residential neighborhoods to recreational areas and major commercial centers.
- M/CI 1.12** Through the Conditional Use Permit process, minimize the number of driveways accessing State and County maintained roads and require shared driveways on adjacent properties.
- M/CI 1.13** Require two points of access on subdivisions.
- M/CI 1.16** Maintain densities of new development allowed within the Mountain Region to that which is consistent with the carrying capacity of the road system.
- M/CI 1.18** On any commercial development that attracts daily traffic, require exclusive left turn lanes, and other improvements as necessary, to allow uninterrupted traffic movement.
- M/CI 2.1** Pursue opportunities for public parking areas that are compatible with and complimentary to the surrounding land uses, and are sensitive to the environment and mountain character.
- M/CI 2.2** Reevaluate the parking requirements in the Development Code to ensure that excessive parking is not required, to address options for shared parking, covered parking, and other parking alternatives.

- M/CI 2.5** In recognition of the potential need to control parking at certain locations along State highways, as part of an overall transportation management strategy, the County shall coordinate parking controls with Caltrans as future traffic flow requirements along these roads dictate.
- M/CI 3.1** Prohibit on-street parking where it reduces highway design capacity and limits snow plowing effectiveness.
- M/CI 3.1** Control access onto all State Highways and County mountain secondary highways.
- M/CI 4.1** Retain the natural channel bottom for all storm water drainage facilities and flood control channels when such facilities are required for a specific development. This protects wildlife corridors and prevents loss of critical habitat in the region.

## IMPACT ANALYSIS AND MITIGATION MEASURES

### METHODOLOGY

#### *STUDY SCENARIOS*

This study was prepared in accordance with the Caltrans and County guidelines, adopted policies, procedures, and standards, and provides a comprehensive analysis of the potential traffic impacts associated with the Project. The following traffic scenarios were developed and analyzed as part of this study:

- **Existing Conditions (Year 2015)** – The analysis of existing traffic conditions provides a basis for the assessment of existing and future traffic conditions with the addition of Project traffic. The Existing Conditions analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Project Site vicinity. In accordance with County procedures and after discussions with Caltrans and the County, intersection turning movement counts were collected in December 2014 during typical weekend morning (9:00 AM to 11:00 AM) and afternoon (2:30 PM to 4:30 PM) peak hours. These counts were grown by 1% to reflect year 2015 conditions.

Field inspections of the Study Area, which include documentation of lane configurations and signal phasing for the analyzed intersections, were conducted in January 2015.

- **Existing plus Project Conditions (Year 2015)** – This scenario analyzes the intersection operating conditions that could be expected if the Project was fully occupied given the existing street system and traffic volumes. In this scenario, the Project-generated traffic is added to the Existing Conditions (Year 2015) traffic volumes.
- **Opening Year plus Project Conditions (Year 2016)** – This scenario analyzes the potential intersection operating conditions that could be expected if the Project is built in the projected buildout year (2016) by adding the Project traffic to the Opening Year without Project Conditions (Year 2016) traffic volumes.
- **Full Build-Out plus Project Conditions (Year 2035)** – This scenario analyzes the potential intersection operating conditions that could be expected with the Project built in the year 2035 by adding the Project traffic to the full buildout without Project Conditions (Year 2035) traffic volumes.

*COUNTY OF SAN BERNARDINO INTERSECTION CAPACITY ANALYSES METHODOLOGY*

Intersection capacity was analyzed using the methodologies adopted by the County. In accordance with the County policy, the intersection capacity analysis was conducted using Synchro software, which is based on the 2000 Highway Capacity Manual (Transportation Research Board, 2000) (HCM), for signalized and unsignalized intersections. The HCM signalized methodology calculates the average delay, in seconds, for each vehicle passing through intersection during the peak hour, while the HCM unsignalized methodology calculates the vehicular delay, in seconds, for critical turning movements. Vehicular delay is equated to a LOS designation to characterize the traffic flow experienced by drivers. Table 4.16-3 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A to congested, stop-and-go conditions at LOS F, for both signalized and unsignalized intersections, based upon their calculated delay output.

**Table 4.16-3: LOS Definitions For Signalized and Unsignalized Intersections**

LOS	Signalized Intersection Delay (sec)	Unsignalized Intersection Delay (sec)	Definition
A	0.0 – 10.0	0.0 – 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	10.1 – 20.0	10.1 – 15.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	20.1 – 35.0	15.1 – 25.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	35.1 – 55.0	25.1 – 35.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	55.1 – 80.0	35.1 – 50.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 80.0	> 50.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

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*PROJECT TRAFFIC VOLUME METHODOLOGY*

The first step of the forecasting process is trip generation, which estimates the total arriving and departing trips generated by the Project on a peak hour basis by applying the appropriate vehicle trip generation equations, or rates, to the size and land use designation of the Project development.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project trips. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the Study Area. Localized routes of travel through the Study Area are developed based on existing traffic patterns and relative travel times on various corridors.

The third step of the forecasting process is traffic assignment. This involves applying the traffic generated by the Project (the trip generation) to the intersections and street segments in the Study Area according to the projected trip distribution patterns. These traffic volumes can then be added to existing and future background conditions to represent the cumulative effect of including Project related traffic volumes to the Study Area once the Project is complete.

With the forecasting process complete and Project traffic assignments developed, the impact of the proposed Project is isolated by comparing operational (i.e., LOS) conditions at the study intersections using expected future traffic volumes without and with to forecast Project traffic.

The need for site-specific and/or cumulative local area traffic improvements may then be evaluated and the significance of the Project's impacts identified. An estimate of the Project's potential trip generation, trip distribution patterns, and trip assignment was prepared for the Project.

*Project Trip Generation*

The Project is a theme park style facility consisting of several recreational and retail buildings totaling approximately 23,389 sf and a 105-site campground. The occupants of the campground will primarily be visitors of the park and, thus, were accommodated within the park's trip generation. The Institute of Transportation Engineers' (ITE) *Trip*

*Generation Handbook, 9th Edition* (ITE, 2012), does not contain a land use category that accurately describes the potential development at the Project. Therefore, as described in the *Trip Generation Handbook, 3rd Edition* (ITE, 2014), a trip generation estimate was developed from known data about the land use.

The Project trip generation is based on the Peak, Design, and Average Day visitor attendance levels for the Project as supplied by the Project Applicant. These visitor Attendance levels were based on historical activity levels at the Project and represent a conservative estimate of the likely usage patterns for the Project.

Southern California theme park/visitor attraction mode split and vehicular average vehicular ridership levels were used to convert the daily attendance levels to vehicle trips. Hourly travel patterns from theme parks and major visitor attractions were used to identify the likely peak hours of operation for vehicular traffic entering and leaving the Project.

Weekday vs. weekend activity levels were reviewed with the Project Applicant and compared to theme park/visitor attraction patterns.

The trip generation estimates were based on the above assumptions and developed using a trip generation model that was developed by GTC for use in theme park and visitor attraction land uses. The model has been applied to Disneyland, Universal Studios Hollywood, LEGOLAND Carlsbad, University of Phoenix (Arizona Cardinals) Stadium, Dodger Stadium, Angels Stadium, STAPLES Center, Honda Center, and dozens of international theme park projects.

Finally, the entire trip generation package was reviewed with County and Caltrans staff to obtain their concurrence prior to commencing the TIA.

It was determined that the trip generation assumptions and results appeared reasonable and the Design Day estimates were approved for use in the TIA. The Design Day Saturday conditions were selected as the most appropriate time frame for the study as they represent the greatest combination of background and Project traffic levels.

Project Trip Distribution

The traffic volumes for the Project were distributed and assigned to the Study Area street system based on existing/anticipated travel patterns in the Study Area for potential theme park visitor origins/destinations. Localized routes of travel through the Study Area were developed based on existing traffic patterns and relative travel times on various corridors and the level of accessibility of the route to and from the Project Site.

Traffic volumes for the Project were distributed to the surrounding street system based on the following general pattern:

- Approximately 10% of the traffic is generated to/from the northwest coming from the Hesperia area
- Approximately 8% to/from the north coming from the Lake Arrowhead area
- Approximately 12% to/from the northeast coming from the Big Bear area
- Approximately 30% to/from the southeast coming from the San Bernardino area using SR 330 and then Live Oak Drive to SR-18
- Approximately 40% to/from the southwest coming from the San Bernardino area using SR-18.

Based on the parking space count distribution between the two parking lots, 60% of the Project traffic was distributed to the parking lot north of SR-18 and 40% of the Project traffic was distributed to the parking lot south of SR-18.

Project Trip Assignment

The assignment of traffic is calculated by applying the trip distribution patterns to the trip generation estimates.

## THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on transportation and circulation if it would do any of the following:

- 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;
- 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;
- 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;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

In addition to the CEQA Guidelines, the Project is also subject to the following thresholds of significance established by the County:

### **San Bernardino County Significant Impact Thresholds**

According to the County's *Traffic Impact Study Guidelines*, a significant impact will occur if project-related traffic increases the V/C ratio at an intersection by more than the thresholds as follows:

***“Signalized Intersections.*** *Any study intersection that is operating at a LOS A, B, C or D for any study scenario without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or F shall mitigate the impact to bring the intersection back to at least LOS D.*

*“Any study intersection that is operating at a LOS E or F for any study scenario without project traffic shall mitigate any impacts so as to bring the intersection back to the overall level of delay established prior to the project traffic being added.*

***“Unsignalized Intersections.*** *An impact is considered significant if the study determines that either section a) or both sections b) and c) occur:*

*“a) The addition of project related traffic causes the intersection to move from a LOS D or better to a LOS E or worse; **OR***

*“b) The project contributes additional traffic to an intersection that is already projected to operate at an LOS E or F with background traffic; **AND***

*“c) One or both of the following conditions are met:*

*1) The project adds ten (10) or more trips to any approach*

*2) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.”*

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.16-1**      **Implementation of the Project would not 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. This impact would be *less than significant with incorporation of mitigation.***

### OPERATION

The findings of the TIA prepared for the proposed Project showed that no significant impacts would occur under any of the study scenarios, as described below:

The Project traffic was added to the existing circulation system to develop the Existing plus Project traffic conditions. Because the LOS with the Project does not fall below LOS D, there are no significant impacts at the study intersections under Existing plus Project Conditions during either the morning or afternoon peak hours.

Opening Year traffic conditions in the Study Area were forecast for the Project opening year of 2016. Based on the County's significance criteria, there are no significant impacts at the study intersections under Opening Year plus Project (Year 2016) Conditions during either the morning or afternoon peak hours.

Full Build-Out Year traffic conditions in the Study Area were forecast for the Project opening year of 2035. Based on the County's significance criteria, there are no significant

impacts at the study intersections under Full Build-Out plus Project (Year 2035) Conditions during either the morning or afternoon peak hours.

The study scenario analysis and Project trip generation analysis information provided in the TIA are presented below.

### **Project Trip Generation**

Table 4.16-4 shows the proposed Project trip generation rates. As shown, the Project is estimated to generate 1,408 daily trips, including 128 trips during the morning peak hour (113 inbound trips and 15 outbound trips) and 155 trips during the afternoon peak hour (65 inbound trips and 90 outbound trips).

### **Project Trip Distribution and Assignment**

As described in the Methodology discussion above, traffic volumes for the Project were distributed to the surrounding street system based on the following general pattern:

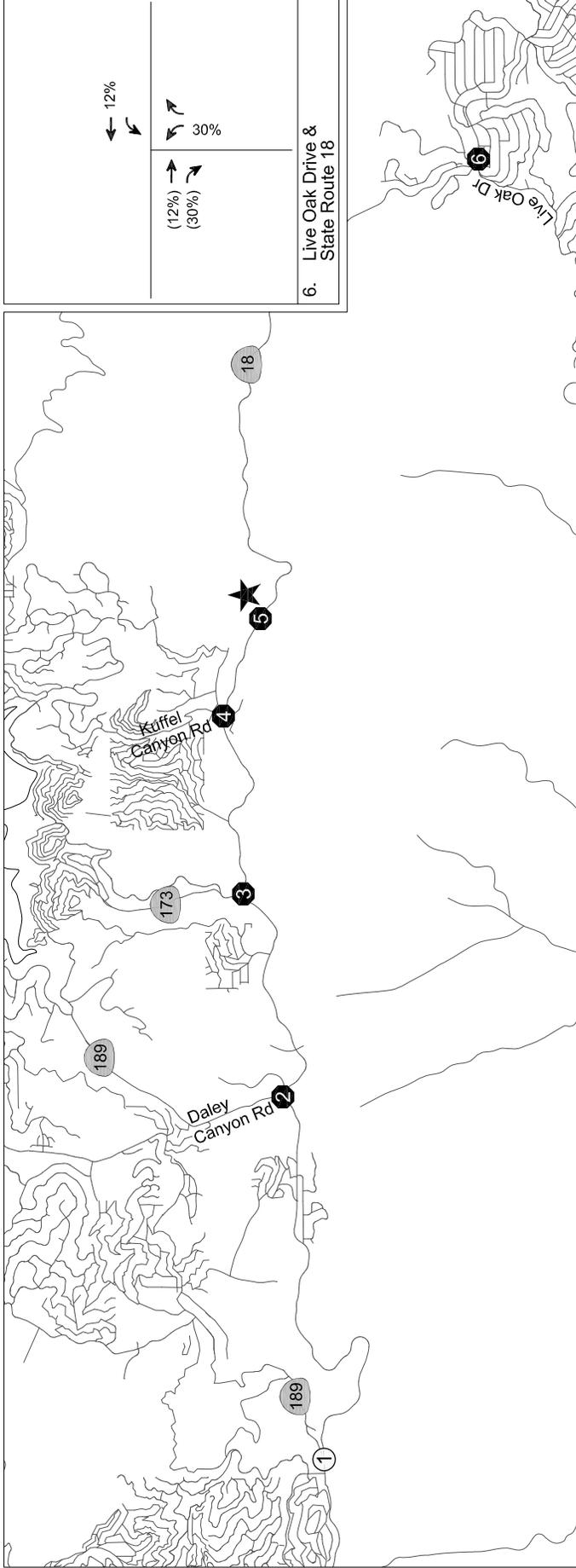
- Approximately 10% of the traffic is generated to/from the northwest coming from the Hesperia area
- Approximately 8% to/from the north coming from the Lake Arrowhead area
- Approximately 12% to/from the northeast coming from the Big Bear area
- Approximately 30% to/from the southeast coming from the San Bernardino area using SR 330 and then Live Oak Drive to SR-18
- Approximately 40% to/from the southwest coming from the San Bernardino area using SR-18.

Based on the parking space count distribution between the two parking lots, 60% of the Project traffic was distributed to the parking lot north of SR-18 and 40% of the Project traffic was distributed to the parking lot south of SR-18. Exhibit 4.16-6: *Project Trip Distribution*, illustrates the trip distribution for the proposed Project. Exhibit 4.16-7: *A.M./P.M. Peak Hour Project Trip Assignment*, shows the A.M./P.M. peak hour Project trip assignment at the study intersections.

**Table 4.16-4: Proposed Project Trip Generation Rates**

Project Condition		AM Peak Hour (9-10AM)			PM Peak Hour (3-4PM)		
		In	Out	Total	In	Out	Total
<b>Peak Hour of Generator</b>		113	15	128	65	90	155
Other Conditions	# of Days Per Year	AM Peak Hour (7-8AM)			PM Peak Hour (5-6 PM)		
		In	Out	Total	In	Out	Total
Summer/Christmas Weekend Peak Day	6	16	1	17	43	85	128
Summer/Christmas Weekend Design Day	44	13	1	14	34	68	102
Summer/Christmas Weekday	100	15	0	16	10	23	33
Winter Weekend Day	56	15	0	16	10	23	33
Winter Weekday	140	13	0	13	1	20	21
Park Closed	19	0	0	0	0	0	0
Total	365						
Special Event		1	0	1	44	23	67

<p>1. State Route 189 &amp; State Route 18</p>	<p>2. Daley Canyon Road &amp; State Route 18</p>	<p>3. State Route 173 &amp; State Route 18</p>	<p>4. Kuffel Canyon Road &amp; State Route 18</p>	<p>5. Project Driveway &amp; State Route 18</p>
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**LEGEND**

- Project Site
- Signalized Study Intersection
- Unsignalized Study Intersection

X%(X%) Inbound(Outbound) Trip Percentage

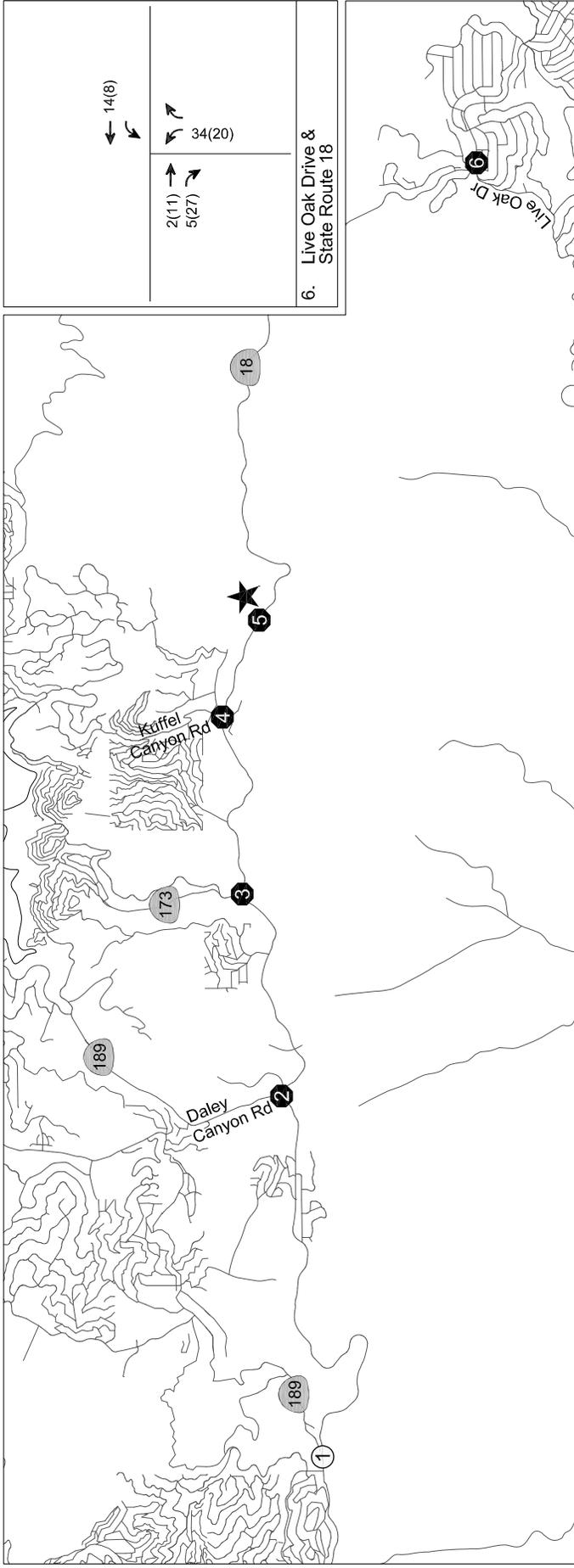
N  
 Not to Scale

# Project Trip Distribution



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<p>1. State Route 189 &amp; State Route 18</p>	<p>2. Daley Canyon Road &amp; State Route 18</p>	<p>3. State Route 173 &amp; State Route 18</p>	<p>4. Kuffel Canyon Road &amp; State Route 18</p>	<p>5. Project Driveway &amp; State Route 18</p>
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**LEGEND**

- Project Site
- Signalized Study Intersection
- Unsignalized Study Intersection
- AM(PM) Peak Hour Peak Hour Traffic Volumes
- N  
Not to Scale

# A.M./P.M. Peak Hour Project Trip Assignment



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**Existing Plus Project Conditions**

The Existing plus Project conditions are analyzed on the same roadway network as the existing conditions. The Project-only traffic volumes described above and shown in Exhibit 4.16-7 were added to the existing traffic volumes to obtain the Existing plus Project peak hour traffic volumes shown in Exhibits 4.16-8 and 4.16-9.

The study intersections were analyzed using the methodologies described above. The Existing plus Project intersection operating conditions for morning and afternoon peak hours on a Saturday and Sunday are shown in Table 4.16-5. As shown, under the Existing plus Project conditions, all six study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours.

**Opening Year Plus Project Conditions**

The Opening Year plus Project (Year 2016) conditions analyzed the traffic volumes, roadways, and intersection configurations that would exist in the year 2016 following full development of the Project without improvements to the roadway network. The Project-only traffic volumes described above and shown in Exhibit 4.16-7 were added to the Opening Year without Project (Year 2016) traffic volumes to obtain the Opening Year plus Project (Year 2016) peak hour traffic volumes shown in Exhibits 4.16-10 and 4.16-11.

The study intersections were analyzed using the methodologies described above. The Opening Year plus Project (Year 2016) intersection operating conditions for morning and afternoon peak hours on a Saturday and Sunday are shown in Table 4.16-6. As shown, under the Opening Year plus Project (Year 2016) conditions, all six study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours.

**Full Buildout Plus Project Conditions**

The Full Build-Out plus Project (Year 2035) conditions analyzed the traffic volumes, roadways, and intersection configurations that would exist in the year 2035 following full development of the Project without improvements to the roadway network. The Project-only traffic volumes described above and shown in Exhibit 4.16-7 were added to the Full Build-Out without Project (Year 2035) traffic volumes to obtain the Full Build-Out plus Project (Year 2035) peak hour traffic volumes shown in Exhibits 4.16-12 and 4.16-13.

The study intersections were analyzed using the methodologies described above. The Full Build-Out plus Project (Year 2035) intersection operating conditions for morning and afternoon peak hours on a Saturday and Sunday are shown in Table 4.16-7. As shown, under the Full Build-Out plus Project (Year 2035) conditions, all six study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours.

#### **Signal Warrant Analysis**

A signal warrant analysis was conducted for the single driveway with traffic signal control. There are expected to be approximately 192 pedestrians during the morning peak hour and 234 pedestrians during the afternoon peak hour. As such, a traffic signal is warranted based on the number of pedestrians expected to cross SR-18 once the Project is open and operational and will be installed as part of the Project.

#### **Sight Distance**

At the request of the County, a sight distance analysis was also conducted for the north and south driveways on SR-18. Sight distances at each of the locations were calculated per the Highway Design Manual, 6th Edition (Caltrans, June 21, 2013). Analysis of the sight distance at the driveway on the north side of the highway and at the driveway on the south side of the highway was conducted as part of the TIA, and it was determined that sufficient sight distance is available to meet state design standards. If needed, the trees surrounding the driveways would be trimmed to provide the required sight distances.

#### **Proposed Site Access and Circulation**

The Project proposes to consolidate driveways on SR-18 to one location with driveways servicing the parking lots located on the north and south sides of the highway. The driveways would provide 36 feet of street width to accommodate two outbound lanes (one shared through/right turn lane, one left-turn lane) and one inbound lane. This width would also accommodate delivery trucks. There would be one eastbound left-turn lane and one westbound left-turn lane constructed on SR-18 to accommodate the visitors of the Project turning into the driveways off the highway. This intersection would be signalized and striped crosswalks would be provided across one or both legs crossing SR-18 and across both driveways.

The 95th percentile queue lengths, as determined by the HCM methodology, averaged to less than one car; thus, the storage length for the left-turn lanes would be 50 feet, the minimum required by Caltrans design standards.

Based on the number of parking spaces in both parking lots, about 60% of the visitors will enter through the driveway on the north side of SR-18 and 40% of the visitors will enter the driveway on the south side of SR-18. Most of the recreational and retail facilities would be located on the north side of SR-18, with the campground located on the south side of the highway.

Pedestrian access would be provided by an at-grade crosswalk and the traffic signal equipment would include pedestrian push buttons with pedestrian "Walk/Don't Walk" indications on all crosswalks.

**Table 4.16-5: Existing Plus Project Conditions (Year 2015)  
Saturday and Sunday Peak Hour LOS**

Study Intersection	Peak Hour	Existing		Existing Plus Project Conditions		Change in Delay (sec)	Impact [b]
		Delay	LOS [a]	Delay	LOS [a]		
<b>SATURDAY</b>							
1. SR-189 & SR-18 [c]	AM	14.2	B	14.2	B	0.0	No
	PM	13.9	B	14.6	B	0.7	
2. Daley Canyon Road & SR-18 [d]	AM	12.4	B	12.7	B	0.3	No
	PM	12.4	B	13.3	B	0.9	
3. SR-173 & SR-18 [d]	AM	13.9	B	15.3	C	1.4	No
	PM	20.8	C	25.9	D	5.1	
4. Kuffel Canyon Road & SR-18 [d]	AM	10.9	B	11.4	B	0.5	No
	PM	12.5	B	13.6	B	1.1	
5. Project Driveways & SR-18 [d][e]	AM	0.0	A	11.7	B	11.7	No
	PM	0.0	A	14.5	B	14.5	
6. Live Oak Drive & SR-18 [d]	AM	10.9	B	12.0	B	1.1	No
	PM	12.4	B	13.7	B	1.3	
<b>SUNDAY</b>							
1. SR-189 & SR-18 [c]	AM	15.9	B	16.4	B	0.5	No
	PM	15.6	B	16.6	B	1.0	
2. Daley Canyon Road & SR-18 [d]	AM	11.9	B	12.1	B	0.2	No
	PM	12.6	B	13.5	B	0.9	
3. SR-173 & SR-18 [d]	AM	14.8	B	16.5	C	1.7	No
	PM	16.4	C	19.0	C	2.6	
4. Kuffel Canyon Road & SR-18 [d]	AM	11.0	B	11.6	B	0.6	No
	PM	11.7	B	12.7	B	1.0	
5. Project Driveways & SR-18 [d][e]	AM	0.0	A	12.0	B	12.0	No
	PM	0.0	A	12.9	B	12.9	
6. Live Oak Drive & SR-18 [d]	AM	11.4	B	12.5	B	1.1	No
	PM	10.8	B	11.9	B	1.1	

**Notes:**

[a] All locations analyzed using HCM methodology

[b] Significant Impact determined using County of San Bernardino methodology

[c] Signalized intersection

[d] Unsignalized intersection

[e] The no Project condition based on Existing cross-section of SR-18

**Table 4.16-6: Opening Year Plus Project Conditions (Year 2016)  
Saturday and Sunday Peak Hour LOS**

Study Intersection	Peak Hour	Existing		Existing Plus Project Conditions		Change in Delay (sec)	Impact [b]
		Delay	LOS [a]	Delay	LOS [a]		
<b>SATURDAY</b>							
1. SR-189 & SR-18 [c]	AM	14.3	B	14.3	B	0.0	No
	PM	13.9	B	14.7	B	0.8	
2. Daley Canyon Road & SR-18 [d]	AM	12.4	B	12.8	B	0.4	No
	PM	12.5	B	13.4	B	0.9	
3. SR-173 & SR-18 [d]	AM	14.0	B	15.4	C	1.4	No
	PM	21.3	C	26.8	D	5.5	
4. Kuffel Canyon Road & SR-18 [d]	AM	10.9	B	11.4	B	0.5	No
	PM	12.6	B	13.7	B	1.1	
5. Project Driveways & SR-18 [d][e]	AM	0.0	A	11.7	B	11.7	No
	PM	0.0	A	14.6	B	14.6	
6. Live Oak Drive & SR-18 [d]	AM	10.9	B	12.0	B	1.1	No
	PM	12.4	B	13.7	B	1.3	
<b>SUNDAY</b>							
1. SR-189 & SR-18 [c]	AM	16.0	B	16.7	B	0.7	No
	PM	15.6	B	16.7	B	1.1	
2. Daley Canyon Road & SR-18 [d]	AM	12.0	B	12.2	B	0.2	No
	PM	12.6	B	13.6	B	1.0	
3. SR-173 & SR-18 [d]	AM	14.9	B	16.7	C	1.8	No
	PM	16.7	C	19.3	C	2.6	
4. Kuffel Canyon Road & SR-18 [d]	AM	11.1	B	11.7	B	0.6	No
	PM	11.8	B	12.8	B	1.0	
5. Project Driveways & SR-18 [d][e]	AM	0.0	A	12.0	B	12.0	No
	PM	0.0	A	13.0	B	13.0	
6. Live Oak Drive & SR-18 [d]	AM	11.4	B	12.6	B	1.2	No
	PM	10.8	B	12.0	B	1.2	

**Notes:**

[a] All locations analyzed using HCM methodology

[b] Significant Impact determined using County of San Bernardino methodology

[c] Signalized intersection

[d] Unsignalized intersection

[e] The no Project condition based on Existing cross-section of SR-18

**Table 4.16-7: Full Buildout Plus Project Conditions (Year 2035)  
Saturday and Sunday Peak Hour LOS**

Study Intersection	Peak Hour	Existing		Existing Plus Project Conditions		Change in Delay (sec)	Impact [b]
		Delay	LOS [a]	Delay	LOS [a]		
<b>SATURDAY</b>							
1. SR-189 & SR-18 [c]	AM	15.2	B	15.2	B	0.0	No
	PM	15.3	B	16.6	B	1.3	
2. Daley Canyon Road & SR-18 [d]	AM	13.4	B	13.8	B	0.4	No
	PM	13.3	B	14.3	B	1.0	
3. SR-173 & SR-18 [d]	AM	15.2	C	16.9	C	1.7	No
	PM	26.7	D	34.9	D	8.2	
4. Kuffel Canyon Road & SR-18 [d]	AM	11.3	B	11.8	B	0.5	No
	PM	13.4	B	14.5	B	1.1	
5. Project Driveways & SR-18 [d][e]	AM	0.0	A	12.0	B	12.0	No
	PM	0.0	A	15.3	C	15.3	
6. Live Oak Drive & SR-18 [d]	AM	11.3	B	12.4	B	1.1	No
	PM	13.1	B	14.5	B	1.4	
<b>SUNDAY</b>							
1. SR-189 & SR-18 [c]	AM	16.7	B	17.3	B	0.6	No
	PM	16.8	B	18.0	B	1.2	
2. Daley Canyon Road & SR-18 [d]	AM	12.6	B	12.8	B	0.2	No
	PM	13.6	B	14.6	B	1.0	
3. SR-173 & SR-18 [d]	AM	16.5	C	18.6	C	2.1	No
	PM	18.7	C	21.9	C	3.2	
4. Kuffel Canyon Road & SR-18 [d]	AM	11.5	B	12.1	B	0.6	No
	PM	12.3	B	13.3	B	1.0	
5. Project Driveways & SR-18 [d][e]	AM	0.0	A	12.3	B	12.3	No
	PM	0.0	A	13.3	B	13.3	
6. Live Oak Drive & SR-18 [d]	AM	11.8	B	13.0	B	1.2	No
	PM	11.2	B	12.3	B	1.1	

**Notes:**

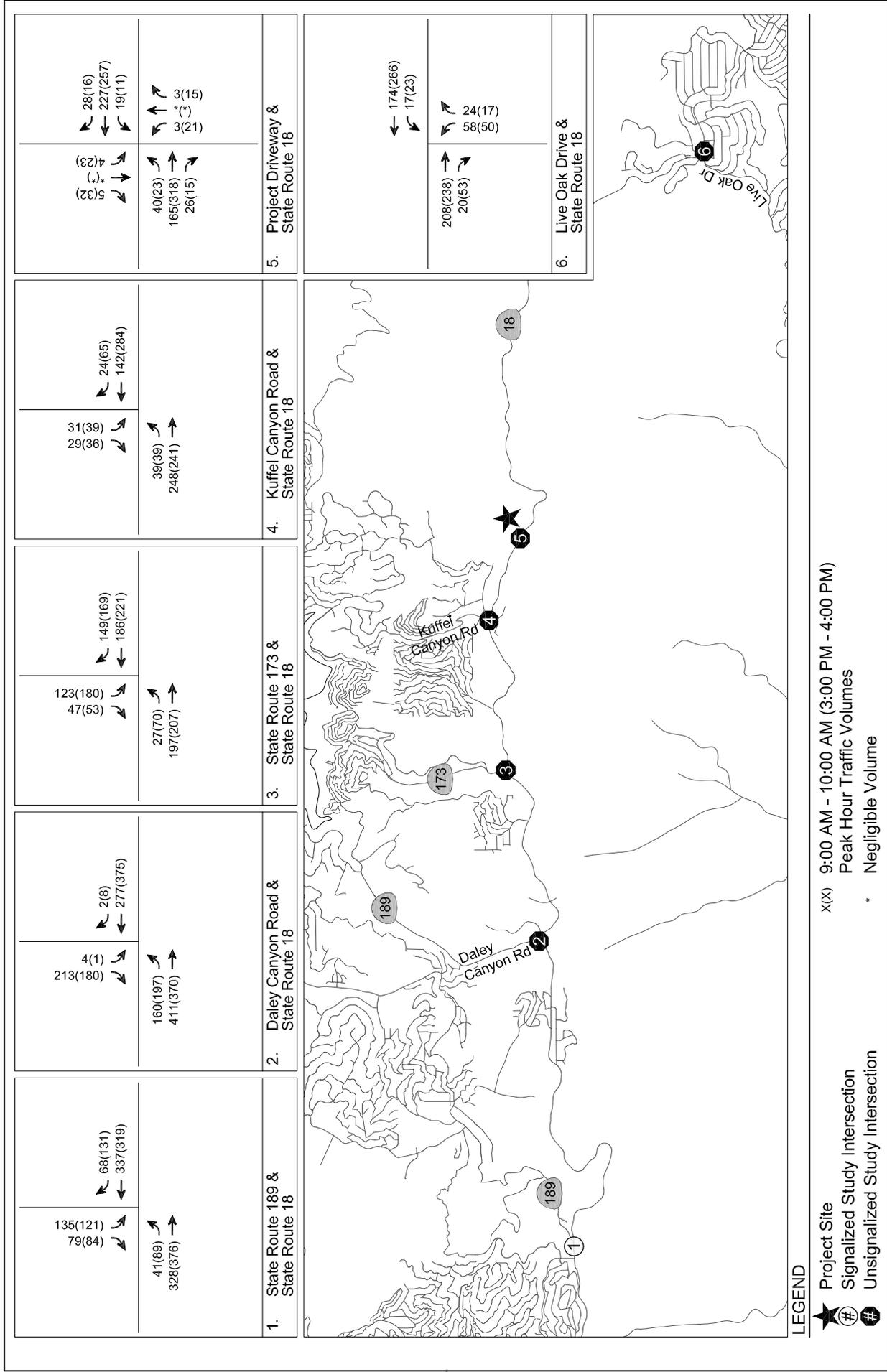
[a] All locations analyzed using HCM methodology

[b] Significant Impact determined using County of San Bernardino methodology

[c] Signalized intersection

[d] Unsignalized intersection

[e] The no Project condition based on Existing cross-section of SR-18



**LEGEND**

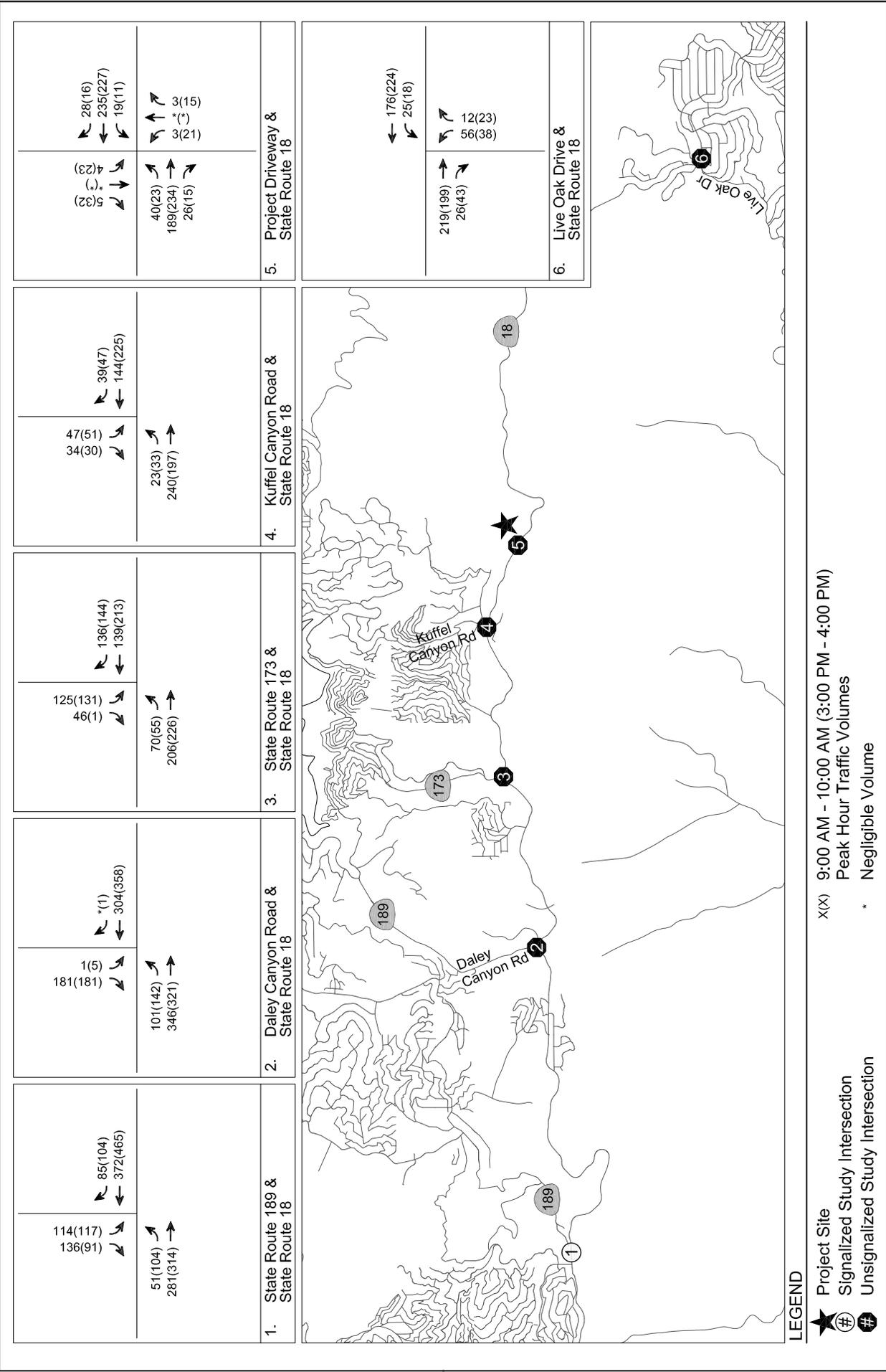
- ★ Project Site
- Ⓝ Signalized Study Intersection
- Ⓢ Unsignalized Study Intersection
- X(X) 9:00 AM - 10:00 AM (3:00 PM - 4:00 PM) Peak Hour Traffic Volumes
- \* Negligible Volume

SKYPARK AT SANTA'S VILLAGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT

## Existing Plus Project Conditions (Year 2014) Saturday Peak Hour Traffic Volumes



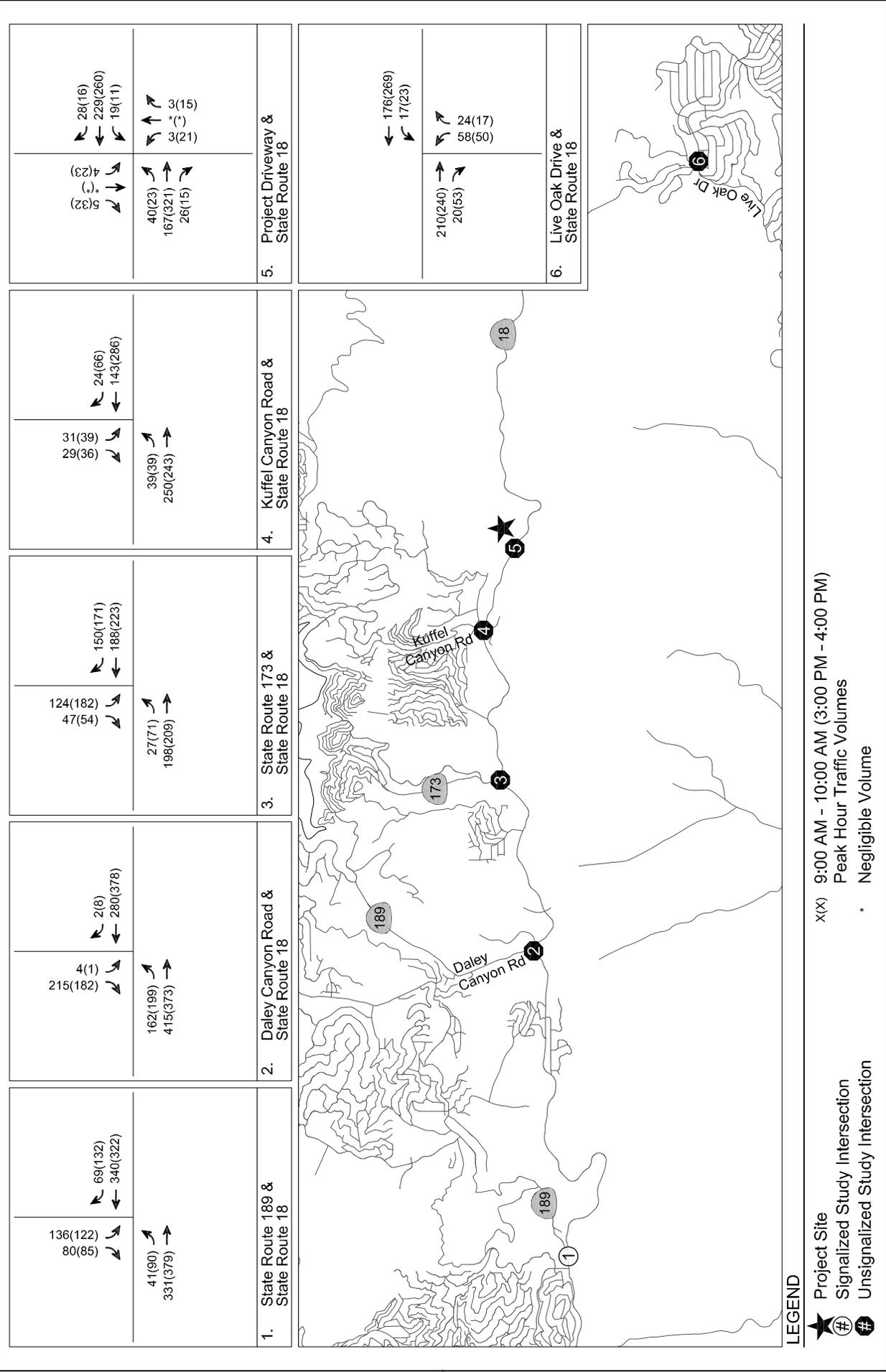
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Source: Gibson Transportation Consulting

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# Opening Year Plus Project Conditions (Year 2015) Saturday Peak Hour Traffic Volumes

**LEGEND**

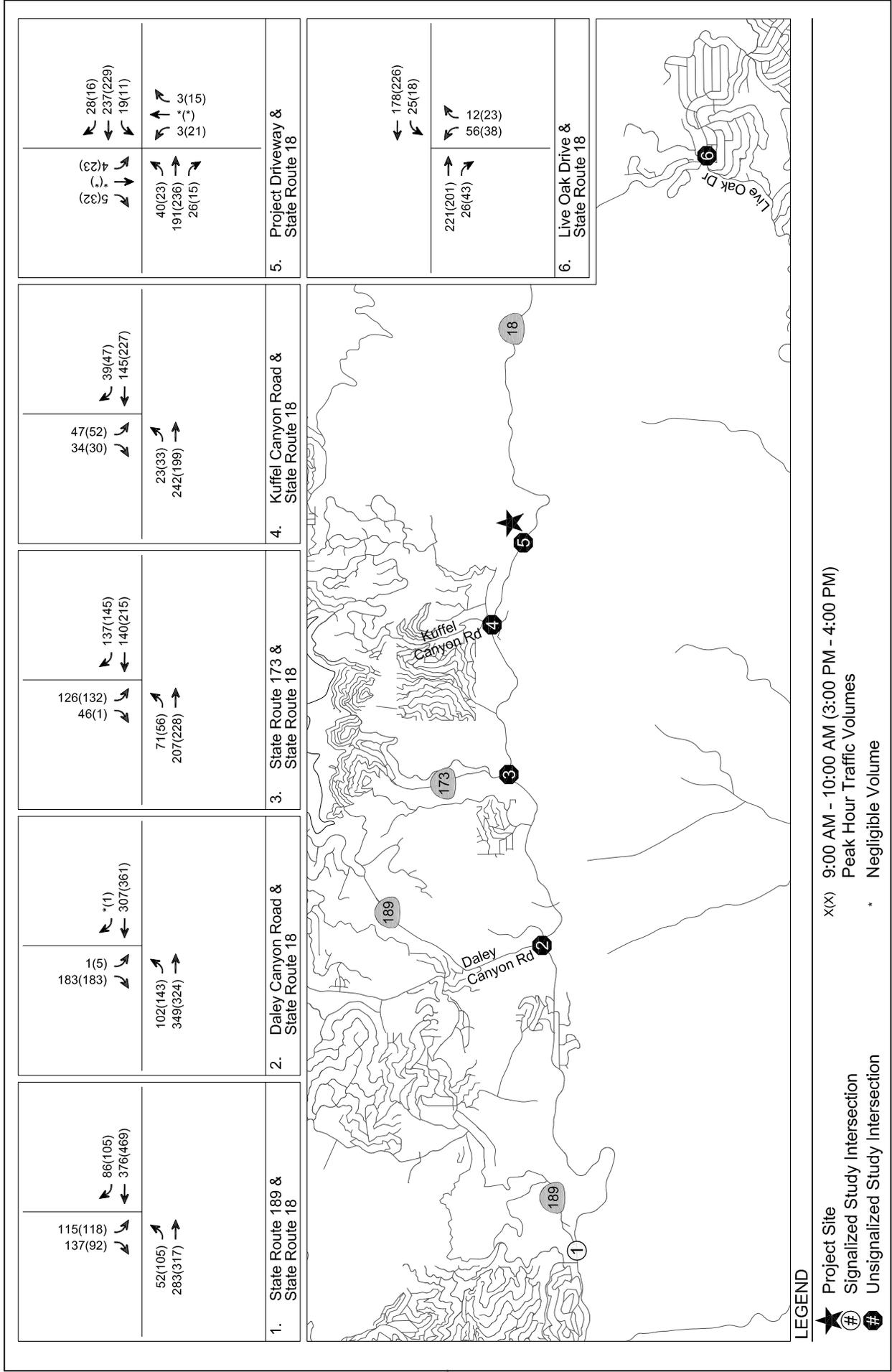
- ★ Project Site
- Ⓜ Signalized Study Intersection
- Ⓜ Unsignalized Study Intersection

- X(X) 9:00 AM - 10:00 AM (3:00 PM - 4:00 PM)  
Peak Hour Traffic Volumes
- \* Negligible Volume



Source: Gibson Transportation Consulting

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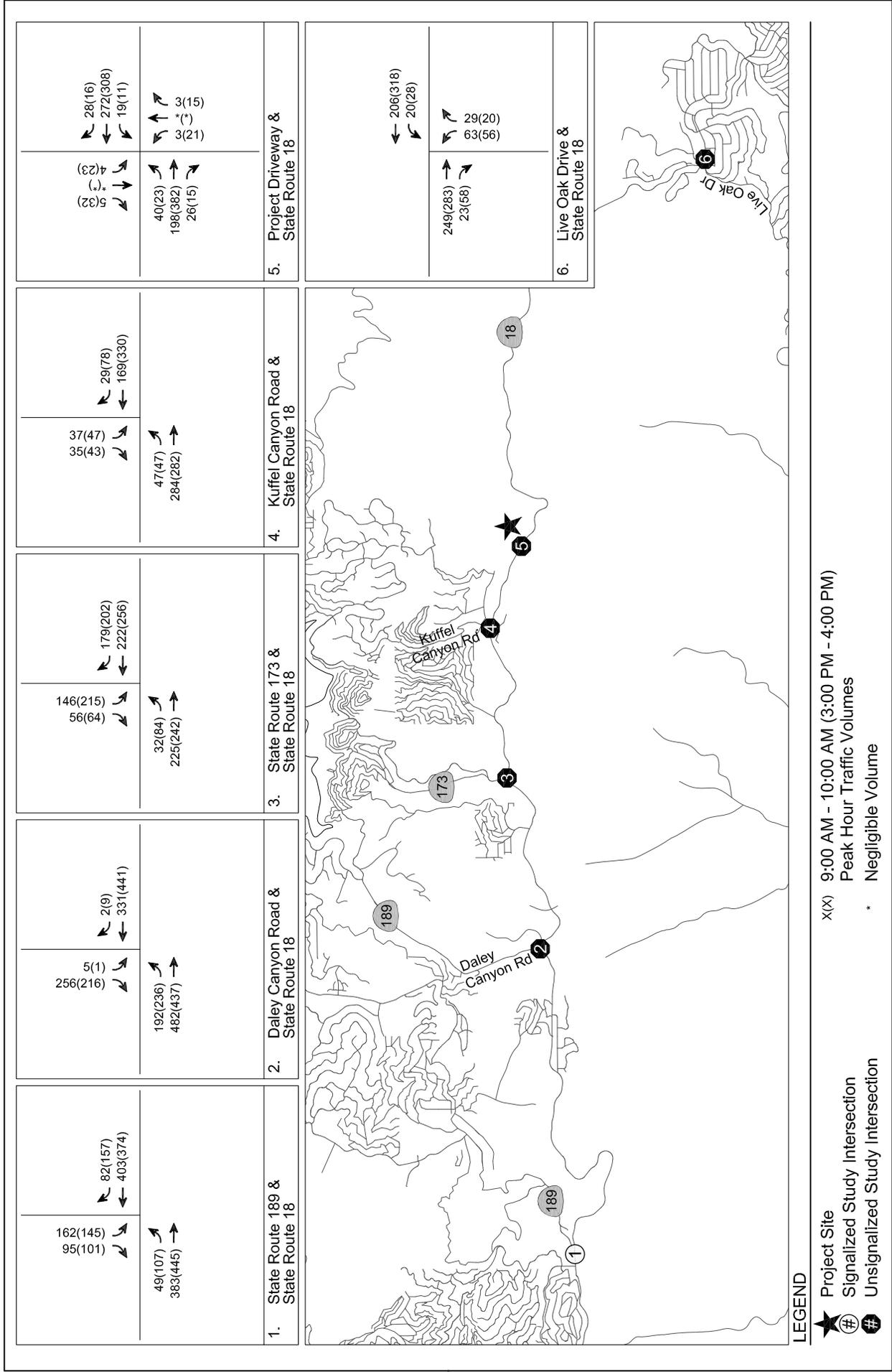


SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT

## Opening Year Plus Project Conditions (Year 2015) Sunday Peak Hour Traffic Volumes

Source: Gibson Transportation Consulting

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**LEGEND**

- ★ Project Site
- # Signalized Study Intersection
- # Unsignalized Study Intersection
- X(X) 9:00 AM - 10:00 AM (3:00 PM - 4:00 PM) Peak Hour Traffic Volumes
- \* Negligible Volume

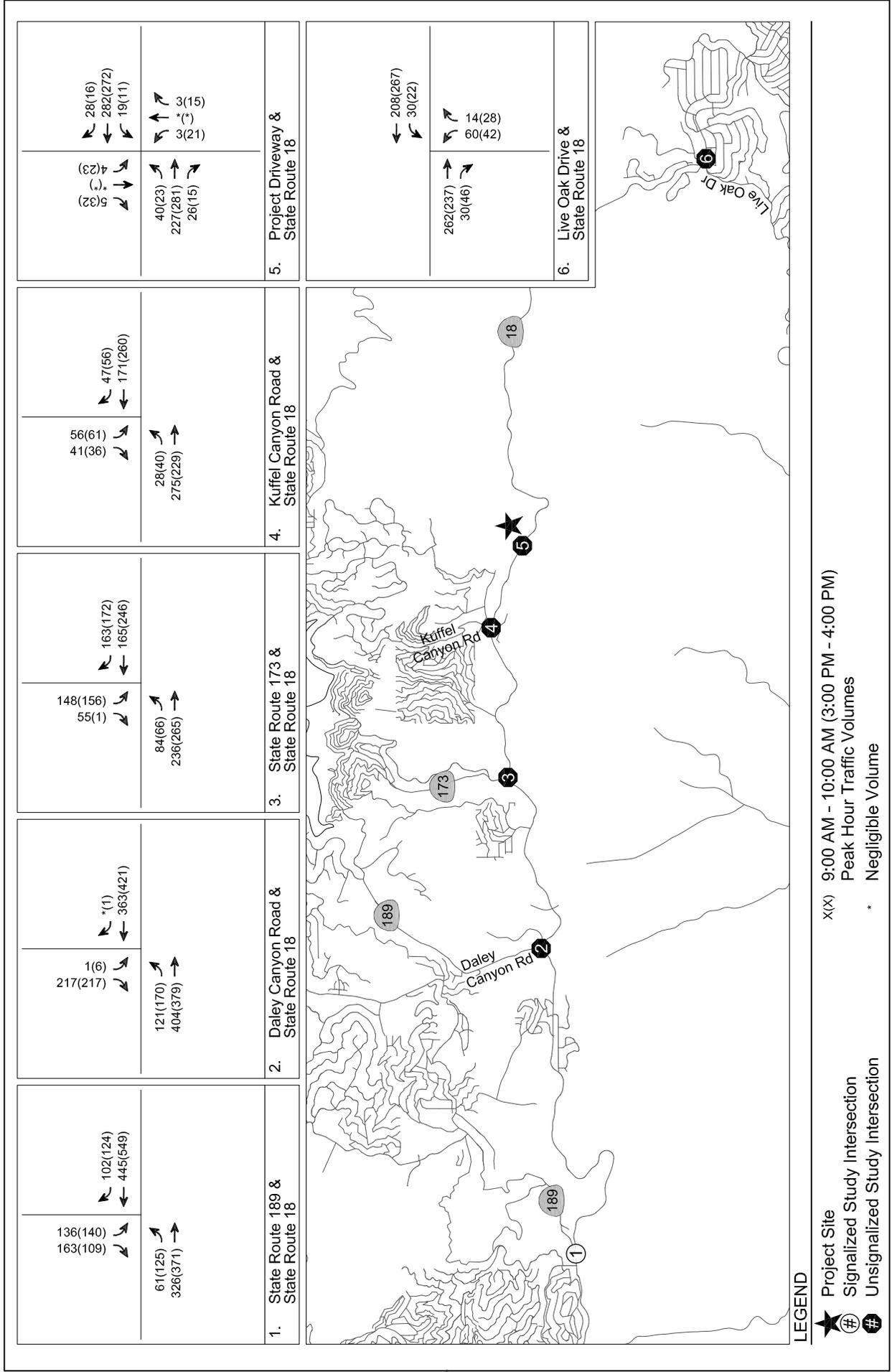
**SKYPARK AT SANTA'S VILLAGE PROJECT**  
**DRAFT ENVIRONMENTAL IMPACT REPORT**

# Full Buildout Plus Project Conditions

## (Year 2035) Saturday Peak Hour Traffic Volumes

Source: Gibson Transportation Consulting

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**LEGEND**  
 Project Site  
 Signalized Study Intersection  
 Unsignalized Study Intersection

X(X) 9:00 AM - 10:00 AM (3:00 PM - 4:00 PM)  
 Peak Hour Traffic Volumes  
 \* Negligible Volume

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There were no significant traffic impacts found in the Existing plus Project, the Opening Year plus Project (Year 2016), and the Full Build-Out plus Project (Year 2035) analyses. Based on the County's significance criteria, the Project is not anticipated to result in significant impacts at any of the study intersections during either peak hour on Saturday and Sunday under the Full Build-Out plus Project Conditions. Even the Project driveway could operate with two-way stop sign control without creating a significant impact. However, Caltrans and the County were concerned with potential operational issues that may not be fully measured in the significant impact analysis methodology. Specifically, Caltrans was concerned with the possibility of pedestrians crossing SR-18 unprotected and the number of left turns that would occur from SR-18 into the Project on busy Project days.

To alleviate these operational concerns, traffic turning left into the Project driveways would be served by adding left-turn lanes at the Project driveway approaching from both directions on SR-18. This would minimize the conflict between the vehicles turning into the Project driveways and the vehicles traveling through on SR-18.

Following Caltrans guidelines, an Intersection Control Evaluation (ICE) was conducted at this intersection; the ICE evaluated the following alternatives access treatments for the main Project entry point:

- a. Single driveway with two-way stop control;
- b. Split driveways with two-way stop control and a pedestrian underpass;
- c. Single driveway with four-way stop control;
- d. Single driveway with traffic signal control; and
- e. Roundabout design on the Project driveway.

Of the above choices, the single driveway with traffic signal control was found to be the safest and most cost-effective alternative. Other choices either had shortcomings in the area of pedestrian safety/control, compatibility concerns with the current operations along SR-18, or major construction cost/environmental impact implications due to topography and tree removal.

A signal warrant analysis was conducted for the single driveway with traffic signal control, it was determined that a traffic signal is warranted based on the number of pedestrians crossing SR-18 once the Project is open and operational. Thus, a signal would be installed as part of the transportation improvement program and as mitigation for this potential impact. The proposed improvement would be implemented by widening SR-18 and restriping the section of the highway to provide a left-turn lane for traffic in each direction. The widening and addition of the left-turn lanes would be designed to meet the requirements set forth by Caltrans. Again because of the steep topography and the number of trees along the roadway, Design Exceptions may be necessary to eliminate and/or reduce the shoulders along the section of road to be widened. The resulting design would be consistent with the design of the remainder of the SR-18 corridor.

With implementation of Mitigation Measure TRA-1, the intersection operates at an acceptable LOS under all scenarios, and would reduce potentially significant impacts to a less than significant level. Refer to Exhibit 4.16-14: *Proposed Intersection Configuration*.

**Mitigation Measures:**

**MM TRA-1** As part of the street improvement plans, the Project Proponent shall design a traffic signal at the intersection of State Route 18 and the project access. It shall include the following:

- The north and south legs shall be designed with 36-foot roadways to accommodate two outbound lanes (one shared through/right turn lane and one left turn lane) and one inbound lane.
- Provide for pedestrian indications and crosswalks at the intersection.
- Provide 432.5 foot westbound and eastbound left turn lanes on State Route 18.
- Advance signal ahead flashing beacons required by Caltrans for both directions on State Route 18.

## CONSTRUCTION

Construction of the proposed Project is anticipated to occur over a total of approximately two months. Localized truck traffic could result as materials are hauled to specific work zones for the proposed Project improvements. Overall, truck traffic generated during the construction phases would result in total volumes higher than existing conditions and a significant impact to transportation and circulation may occur. Construction to complete the exterior refurbishment and interior carpentry of the existing buildings (for restaurant, coffee shop, retail, rentals, etc.) by contractors and mid-size trucks and equipment. Improvements at the campground include minor grading for road and campsites, installation of infrastructure (gas line, water and sewer pipelines), and construction of the bathroom/showers/laundry building which would utilize a backhoe, grader and/or bobcat, and utility trucks. Meadow restoration would use similar equipment. Construction of improvements to SR-18 and the entrance could require heavy equipment including graders and backhoes as well as utility trucks. The existing parking lots on the north and south side of SR-18 would be used for construction equipment staging and construction vehicle parking. Although these different components of construction are not dependent on each other it is anticipated for the purposes of this analysis, and as a worst case scenario, that they could be constructed concurrently, over an approximate two month period.

These temporary construction-related impacts would be avoided with implementation of a Construction Traffic Management Plan (TMP), to be established by the County prior to construction of any improvements. The TMP would require prior notices, adequate sign-posting, detours, phased construction and temporary driveways where necessary to reduce construction-related impacts that may result from the proposed Project.

## CUMBERLAND DRIVE

The County of San Bernardino will require as a condition of approval of the proposed Project, a 20-foot wide right-of-way to be dedicated to the County, along the northwest boundary of the site, as a potential future contribution for the extension of Cumberland Drive. The extension of Cumberland Drive is expected to be constructed at some time in the future. However, it is not known when in the future it may be constructed because it

is based on future development by private property owners. In order for the Cumberland Drive extension to occur the following would have to occur:

- Property owners to the north of the Project site submit applications to the County for planned residential development;
- An alignment study is completed and reviewed and approved by the County Public Works Department to identify the exact location of the roadway;
- Future residential development or developments north of the Project site design and construct the extension of Cumberland Drive to SR-18 as a condition of approval, in accordance with the location identified in the alignment study.

As such, it cannot be determined at this time if the dedication as a part of the proposed Project will actually be used for an extension of Cumberland Drive. However, the dedication of right-of-way within the Project site ensures that the property will be retained for that purpose, if the road is to be constructed and in that location. Therefore, the proposed Project will not conflict with the potential future implementation of Lake Arrowhead Community Plan Policy LA/CI 1.14. Compliance with CEQA will be required for any future extension of Cumberland Drive prior to initiation of any construction activities.

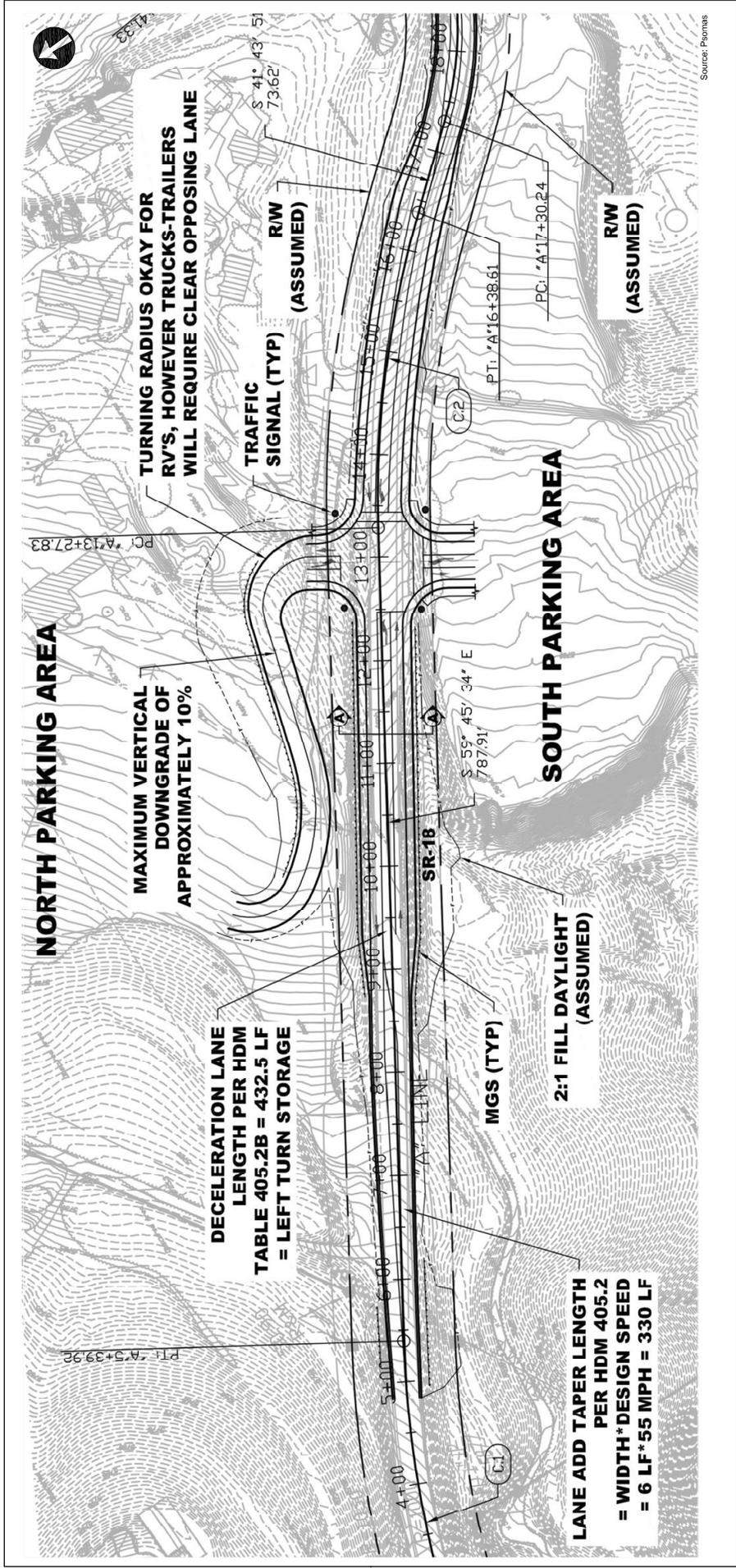
Currently Cumberland Drive is designated as a Mountain Secondary (60-foot right-of-way) in the County's General Plan Circulation Element, as shown on Figure CI-2, *Major Roads and Freeways – Mountain Region*. The proposed amendment to the Circulation Element is to change the designation of Cumberland Drive from Mountain Secondary to Local Road (40-foot right-of-way). Cumberland Drive, as currently identified as a Secondary Street in Figure CI-2, *Major Roads and Freeways – Mountain Region* of the Circulation Element, would be removed from this figure as local streets are not shown on it.

Lake Arrowhead Community Plan Policy LA/CI 1.14 was developed based on the anticipation that the undeveloped areas north and northwest of the existing Santa's Village attraction would be developed as residential. The undeveloped areas north and northwest of the Project site are currently located within the Lake Arrowhead Single

Residential 14,000 minimum (LA/RS-14m) Land Use District which allow for single residential units on individual lots with a minimum lot size of 14,000 square feet. The Project site is also in the LA/RS-14m and LA/SD-RES Land Use Districts. LA/SD -RES allows for a combination of residential, commercial, and/or manufacturing activities that maximizes the utilization of natural as well as man-made resources. The proposed Project includes an amendment to change the existing Land Use Districts from LA/RS-14m and LA/SD-RES to Lake Arrowhead/Rural Commercial (LA/CR). The (LA/CR) Land Use District provides sites in rural areas where a range of commercial services intermixed with residential uses can be established which are limited in scope and intensity and meet the need of the remote population and the traveling public. The proposed amendment to the Land Use District designation reduces the intensity of residential development allowed. Further, the proposed Project does not include the construction of residences. Therefore, the proposed Project is reducing the number of residences in the Project area as compared to development of the area in accordance with the current Land Use Districts that would utilize an extension of Cumberland Drive south to SR-18, if it were to be constructed.

The change in classification from Mountain Secondary to Local Roadway will not adversely affect the ability of the existing segment of Cumberland Drive to continue to serve as a local connector to SR-173. The existing segment of Cumberland Drive north of the project between SR-173 and Bald Eagle Ridge Road is a two lane road with a painted center divider. The change in classification will not change the number of lanes, it will continue to be a two lane road, with one lane in each direction. The fire department requires that local roads are paved to a minimum width of 26-feet. A local roadway classification requires a two lane, 26-foot paved road with one lane in each direction. Cumberland Drive, with a local roadway classification will continue to provide the same level of access and evacuation capacity. Existing roadways in the residential areas surrounding the Project site (i.e. Blue Ridge Drive, Greenbriar Drive, Sycamore Drive) are local roadways. Cumberland Drive, as a local roadway, would be consistent with the surrounding area.

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Source: Parsons

SKYPARK AT SANTA'S VILLAGE PROJECT  
 DRAFT ENVIRONMENTAL IMPACT REPORT

# Proposed Intersection Configuration

Exhibit 4.16-14



Source: Gibson Transportation Consulting

6/3/2016 JN M:\Mdata\148449\MXD\EIR

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<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.16-2**      **Implementation of the Project would not 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. This impact would be *no impact*.**

The Congestion Management Program (CMP) is a state-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program and State Transportation Improvement Program processes. There are no CMP arterial monitoring intersections in the Project vicinity and, thus, no CMP analysis was performed. No impact would occur in this regard.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.16-3**      **Implementation of the Project would not 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. This impact would be *less than significant*.**

## CONSTRUCTION AND OPERATION

The nearest public use airports are San Bernardino International Airport (airport identifier SBD) located approximately 10 miles southwest of the Project Site; Redlands Municipal Airport (airport identifier REI) located approximately 10 miles southeast of the Project Site; and Hesperia Airport (airport identifier L26) located approximately 13 miles north of the Project Site. Construction of the infrastructure associated with the Project

would not interfere with flight operations at these airports because construction would not result in significant sources of glare, direct illuminations, vapor, smoke, or dust which would affect airport operations. In addition, the Project site is well outside of Airport Influence Areas for all three airports, and Project implementation would not result in a change in air traffic patterns for any of these airports. Therefore, a less than significant impact is anticipated in this regard.

<i>Threshold:</i>	<i>Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</i>
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**Impact 4.16-4**      **Implementation of the Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). This impact would be *less than significant*.**

## OPERATION AND CONSTRUCTION

As discussed in Impact 4.16-1 above, there is the potential for a significant operational impact to occur at the Project Driveways & SR-18, because of the possibility of pedestrians crossing SR-18 unprotected and the number of left turns that would occur from SR-18 into the Project on busy Project days. Therefore, Mitigation Measure TRA-1 recommends the addition of left-turn lanes approaching the Project Site from both directions on SR-18; widening SR-18 and restriping the section of the highway to provide a left-turn lane for traffic in each direction, to reduce potentially significant impacts to this intersection. With the exception of this roadway improvement, no new roadways on the transportation system within the Project area are proposed as part of the Project. In addition, the improvements proposed in Mitigation Measure TRA-1 would be designed to meet the requirements set forth by Caltrans. Therefore, no hazardous roadway design features would result. As such, implementation of the Project would not create a transportation hazard as a result of an incompatible use, and a less than significant impact has been identified.

The Project proposes to construct multiple improvements as described in Section 3.0, *Project Description* of this EIR. All improvements would be installed in conformance with

County design standards to ensure that no hazardous transportation design features would be introduced by the Project. A less than significant impact would occur in this regard.

<i>Threshold:</i>	<i>Would the Project result in inadequate emergency access?</i>
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**Impact 4.16-5**      **Implementation of the Project would not result in inadequate emergency access. This impact would be *less than significant*.**

### OPERATION

Operation of the proposed Project would not result in inadequate emergency access because all Project design features would comply with design standards and regulations set forth by the County. During the course of the County's required review of the proposed Project, the Project's design was reviewed to ensure that adequate access to and from the Project Site is provided for emergency vehicles. Operational impacts to emergency access would be less than significant.

### CONSTRUCTION

Traffic circulation may be temporarily adversely affected during the Project's construction phases. Impacts would occur as a result of construction equipment and vehicles on roadways adjacent to construction areas. Impacts that are likely to occur would be a disruption of the normal flow of traffic as a result of the movement of construction vehicles and heavy equipment within the public right-of-way and temporary lane closures, and fire and police protection emergency vehicles may be temporarily impacted.

The County shall deploy appropriate temporary signage and identify any detour routes to ensure safe and efficient movement of vehicles, including emergency vehicles, during the Project's construction phases. Implementation of a Construction Traffic Management Plan (TMP) to be established by the County prior to construction of any improvements as described in Impact 4.16-1, above, would ensure that construction-related impacts are minimized throughout all construction phases. Impacts regarding emergency access would be less than significant and no mitigation would be required.

<i>Threshold:</i>	<i>Would the Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</i>
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**Impact 4.16-6**      **Implementation of the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This impact would be *less than significant*.**

### OPERATION

Operation of the proposed Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, nor would the Project decrease the performance or safety of such facilities. The Project has been designed to comply with all applicable County transportation policies.

None of the Project components would interfere with, or alter, the use of public transit, bicycle, or pedestrian facilities, nor would any element of the Project's design preclude the use of these facilities. The existing transit routes and bus shelters, bike lanes and pedestrians trails identified earlier in this section would continue to function as they currently do, and a less than significant impact is anticipated.

### CONSTRUCTION

Traffic circulation may be temporarily adversely affected during the proposed Project's construction phases. Impacts would occur as a result of construction equipment and vehicles on roadways adjacent to construction areas. Impacts that are likely to occur would be a disruption of the normal flow of traffic as a result of the movement of construction vehicles and heavy equipment within existing right-of-way and temporary lane closures. As such, alternative transportation facilities such as bus turnouts and bicycle lanes may be temporarily impacted. As discussed in Impact 4.16-1, above, these temporary construction-related impacts would be minimized with implementation of a Construction Traffic Management Plan (TMP), to be established by the County prior to construction of any improvements. Impacts regarding adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities would be less than significant.

## **4.17 UTILITIES**

Utility services include solid waste services, electricity, gas, water services, wastewater services, telephone, and cable television. In unincorporated mountain areas in San Bernardino County, water, gas, and electric companies provide utility services.

This section provides discussion of existing conditions within the Project area as they pertain to utilities. Information in this section is based primarily on the *San Bernardino County General Plan* and the *Lake Arrowhead Community Plan, Hydrogeologic Evaluation of the Proposed SkyPark at Santa's Village, San Bernardino, California* prepared by Thomas Harder & Co., December 2015 (Appendix G), and the site plan.

### **ENVIRONMENTAL SETTING**

Four utility easements exist on the property for electric, water, gas, and telecommunication access. All four easements are on the northern portion of the proposed Project site. The electric and gas easement runs perpendicular (north to south) to SR-18 and along the western property line. Approximately 500 feet along the start (from SR-18) of the western property line, a 10-foot wide telephone easement runs parallel to SR-18. A gas and water Easement connects to the telephone easement and extends all the way across to the eastern property line of the Project site. Approximately 2,000 feet from SR-18, a 10-foot electric power pole easement extends across the western property line of the site to the eastern property line (see Exhibit 3.0-8 *Utility Easements*).

#### **Solid Waste**

Burrtec Mountain Disposal (BMD) provides the Project site's solid waste service. Currently BMD provides the property owner with solid waste containers. It is anticipated that BMD would supply additional commercial and construction containers during construction and operational phases of the Project.

**Electricity**

Southern California Edison (SCE) provides the existing Project site's electrical service. The utility connection extends through the meadow to each existing building. Both heating and cooling are powered by electricity in the existing buildings. Currently, the existing buildings are the only illuminated elements. Additional exterior illumination would be expected within the parking lot areas and the proposed campground area other than safety requirements at the main entrances and pedestrian pathways.

**Natural Gas**

The existing Project site is connected to natural gas. The local provider of natural gas is Southern California Gas (SoCal Gas). A high-pressure distribution pipeline bisects the proposed project area from east to west. The distribution pipeline runs through the meadow, in the existing 10-foot wide utility easement. The proposed Project is set to leave all existing natural gas lines in place, thus there would be no interruption of the easement during the restoration of the meadow. However, a natural gas line will be extended to the campsite for restroom/shower/laundry water heating and fire pits/rings. Several community camp fire rings are proposed at the campground. These camp fire rings would be supplied by natural gas and burning of wood or other materials at the campground would not be allowed. Use of camp fire rings at the campground must be operated in accordance with the San Bernardino County Fire Protection District Fire Code<sup>1</sup>. A permit must be obtained by the fire code official prior to use of the camp fire rings at the campground.

**Water Supply**

Groundwater in the project area occurs in the complex rock fractures that are recharged through percolation of precipitation and surface water. The project site generally north of SR-18 and its three existing wells are located in the Hooks Creek Hydrologic Subunit. The Project site has three existing wells, one is inactive and the Fire Ring Well and the Meadow Well are active (see Figures 2 and 3 in the Thomas Harder & Co. Technical Memorandum). The Meadow Well and Fire Ring Well will be used to meet the water demand of the Project. The Fire Ring Well was drilled in 1991 to a depth of 414 feet below

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<sup>1</sup> [http://www.sbcounty.gov/Uploads/SBCFire/content/fire\\_marshall/pdf/2011\\_SBCFPD\\_Ordinance.pdf](http://www.sbcounty.gov/Uploads/SBCFire/content/fire_marshall/pdf/2011_SBCFPD_Ordinance.pdf)

ground surface. The Fire Ring Well would provide water for domestic use and decorative landscaping on the Project site. The Meadow Well was constructed sometime before 1955 when it began operating for Santa's Village. It would be used for decorative landscaping, supplemental water supply for the existing small pond, an orchard, and construction water. Additionally, the Project also has a connection to the local water purveyor, Skyforest Mutual Water Company (SMWC), which can be used in case of emergencies. SMWC is a member of Crestline Lake Arrowhead Water Agency (CLAWA), a water wholesaler delivering imported California State Water Project water to the Crestline and Lake Arrowhead area.

### **Wastewater**

The existing Project site (north of SR-18) is serviced by its own septic system. A septic system is a small-scale sewage treatment system commonly found in areas that lack sewage pipes provided by local governments. An additional septic system would be installed in the campsite (south of SR-18) to service the campgrounds. The septic system would include a holding tank and leach lines for liquid waste disposal. The leach lines would follow the geologic contour of the site, thus seeping through the southern San Bernardino Mountains. Solid wastes would be removed continually. A percolation test is required prior to installation to ensure the porosity of the soil is adequate to serve as a drain field. Accordingly, Ray W. McDonald & Assoc. Inc. prepared a percolation test and system design on January 2015. Results indicated that the proposed system design for the allocated site has sufficient area to handle the liquid waste from the restroom facility (consisting of 2 laundry units, 2 urinal units, 8 toilets, 6 showers (4 standard and 2 handicap), and 8 wash basins/sinks) without creating a nuisance or contaminating the groundwater; and the system would meet the requirements of the Santa Ana Water Quality Control Board (SAWQCB).

### **Telecommunications**

The existing Project site has telephone, cable, and internet services provided by Charter. It is not anticipated that another service provider would be required to implement the proposed Project or that expansion of the existing service is required.

## REGULATORY FRAMEWORK

### SOLID WASTE

#### *STATE*

##### CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

California's Integrated Waste Management Act of 1989 (Assembly Bill (AB) 939) requires cities and counties to divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. AB 939 requires each City and County to prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), in an effort to meet the goal of at least 15 years of ongoing landfill capacity, as defined by the Act. Cal Recycle is a department within the California Natural Resources Agency and administers programs formerly managed by the California's Integrated Waste Management Board (CIWMB) and Division of Recycling.

SB 1016, which established a per capita disposal measurement system, amended AB 939 in 2007. The per capita disposal measurement system is based on a jurisdiction's reported total disposal of solid waste divided by the jurisdiction's population with a CIWMB target per capita rate of disposal. Each jurisdiction is responsible for submitting an annual report outlining its progress in implementing diversion programs and its current capital disposal rate.

##### AB 341, MANDATORY COMMERCIAL RECYCLING MEASURE

Effective June 2012, the Mandatory Commercial Recycling Measure is designed to reduce greenhouse gas (GHG) emissions by diverting commercial and multifamily family solid waste to recycling efforts. Senate Bill 1018 amended the measure by requiring businesses that generate 4 cubic yards or more of commercial solid waste per week to arrange for recycling services. The threshold for triggering mandatory compliance for multifamily housing is five or more units. Local jurisdictions are required to implement commercial solid waste recycling programs that consists of education, outreach and monitoring of businesses, and shall report the progress of the program to CalRecycle through an Electronic Annual Report.

CALIFORNIA SOLID WASTE REUSE AND RECYCLING ACCESS ACT OF 1991

The California Solid Waste Reuse and Recycling Access Act require areas within development projects to be set aside for collection and loading recyclable materials. Local agencies are required to adopt a model ordinance developed by CalRecycle, or an ordinance of their own, governing adequate areas in development projects for collection and loading of recyclable materials.

CAL GREEN BUILDING CODE

The California Green Building Standards Code (CalGreen Code) came into effect for all projects beginning after January 1, 2011. Section 4.408, Construction Waste Reduction Disposal and Recycling mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged through the provision of a waste management plan for on-site sorting of construction debris. CALGreen is adopted by reference in section 9.14.030 of the Tracy Municipal Code.

*LOCAL*SAN BERNARDINO COUNTY GENERAL PLAN**Goals:**

- CI 14.** The County will ensure a safe, efficient, economical, and integrated solid waste management system that considers all wastes generated within the County, including agricultural, residential, commercial, and industrial wastes, while recognizing the relationship between disposal issues and the conservation of natural resources.

**Policies:**

- CI 14.1** Utilize a variety of feasible processes, including source reduction, transfer, recycling, land filling, composting, and resource recovery to achieve an integrated and balanced approach to solid waste management.

**Programs**

1. Seek federal and state funds for projects utilizing resource and material recovery processes.
2. Participate in resource and material recovery studies.
3. Continue recycling operations at County landfills; expand recycling operations to other landfills or resource recovery facilities.

**CI 14.4** Initiate educational and other programs to reduce waste generation, increase diversion of solid waste away from landfills, promote recycling, and identify new facilities for waste disposal within the County.

## NATURAL GAS AND ELECTRICITY

### *LOCAL*

#### SAN BERNARDINO COUNTY GENERAL PLAN

##### **Goals:**

CI 18.1 The County will ensure efficient and cost effective utilities that serve the existing and future needs of people in the unincorporated areas are provided.

##### **Policies:**

CI 18.1 Coordinate with Southern California Edison and other utility suppliers to make certain that adequate capacity and supply exists for current and planned development in the County.

## WATER

### *STATE*

#### **California Water Code Sections 10910 through 10915**

Sections 10910 through 10915 (inclusive) of the California Water Code require land use agencies to: (1) identify any public water purveyor that may supply water for a proposed development project; and, (2) request from the identified purveyor a Water Supply Assessment (WSA) for projects that meet the following criteria:

- A proposed residential development of more than 500 dwelling units. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space. A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified above.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The purpose of a WSA is to demonstrate the sufficiency of the purveyor's water supplies to satisfy the water demands of a proposed project, while still meeting the water purveyor's existing and planned future uses. Water Code sections 10910 through 10915 identify the specific information that must be included in a WSA. Senate Bill (SB) 610 amended the Public Resources and Water Codes as it pertains to consultation with water supply agencies and water supply assessments.

### **Sections 10750 through 10756**

Sections 10750 through 10756 of the California Water Code (AB 3030) provide a systematic procedure for an existing local agency to develop a groundwater management plan. This section of the code provides such an agency with the powers of a water replenishment district to raise revenue to pay for facilities to manage the basin (extraction, recharge, conveyance, quality). One hundred forty-nine agencies have adopted groundwater management plans in accordance with AB 3030. Other agencies

have begun the process. In some basins, groundwater is managed under other statutory or judicial authority.

### **Senate Bill 221**

SB 221 is a companion measure to SB 610 that seeks to promote more collaborative planning between local water suppliers and cities and counties. Where SB 610 requires water assessments be furnished to local governments for inclusion in any environmental documentation for projects (as defined by Water Code Section 10912) subject to CEQA, SB 221 states that approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

### **Assembly Bill 901, Urban Water Management Planning Act of 1983**

The Urban Water Management Planning Act (Division 6 Part 2.6 of the Water Code Section 10610-10656) requires that an Urban Water Management Plan (UWMP) be prepared by California's urban water suppliers to support their long-term resource planning. This is to ensure adequate water supplies are available to meet existing and future water demands. Urban water suppliers are required to assess the reliability of their water sources if that water supplier either provides over 3,000 acre-feet of water annually or serves 3,000 or more connections. The required assessment evaluates reliability over a 20-year period and considers normal, dry, and multiple dry years. The completed assessment is to be included in the UWMP, which must be prepared every five years and submitted to the Department of Water Resources (DWR).

### **Assembly Bill 2403, Sustainable Groundwater Management Act**

The Sustainable Groundwater Management Act empowers local agencies to manage groundwater basins in a sustainable manner. It provides five to seven years for locals to form a Groundwater Sustainability Agency and to create a Groundwater Sustainability Plan. The plan would have a 20-year implementation horizon with the possibility for two five-year extensions, if the agency is making progress towards sustainability.

### **California Code of Regulations**

Title 24, Part 5 of the California Code of Regulations has established the California Plumbing Code, which became effective January 1, 2014. The California Plumbing Code

sets forth efficiency standards for all new federally regulated plumbing fittings and fixtures, including showerheads and lavatory faucets. Accordingly, the maximum flow rate for showerheads is 2.0 gallons per minute (gpm) at 80 pounds per square inch (psi). The maximum flow rate for lavatory faucets is 1.5 gpm at 60 psi. In addition, all water closets (i.e., flush toilets) are limited to 1.6 gallons per flush and urinals are limited to 0.5 gallon per flush. In addition, Section 1605.3(h) establishes State efficiency standards for non-federally regulated plumbing fittings, including commercial pre-rinse spray valves.

### *REGIONAL*

#### REGIONAL WATER QUALITY CONTROL BOARDS

The Santa Ana Regional Water Quality Control Board (SARWQCB) is one of nine statewide regional boards. The SARWQCB protects ground and surface water quality in Orange, Riverside, and San Bernardino Counties. In order to carry out its mission to preserve and enhance water quality, the SARWQCB conducts the following range of activities to protect ground and surface waters under its jurisdictions:

- Addresses region-wide and specific water quality concerns through updates of the Water Quality Control Plan (Basin Plan);
- Prepares, monitors compliance with, and enforces Waste Discharge Requirements, including NPDES permits;
- Implements and enforces local stormwater control efforts;
- Regulates the cleanup of contaminated sites, which have already polluted or have the potential to pollute ground or surface water;
- Enforces water quality laws, regulations, and waste discharge requirements;
- Coordinates with other public agencies and groups that are concerned with water quality; and
- Informs and involves the public on water quality issues.

The Lahontan Regional Water Quality Control Board is one of nine statewide regional boards. The Lahontan Regional Water Quality Control Board protects ground and

surface water quality and extends from the Oregon border to the northern Mojave Desert and includes all of California east of the Sierra Nevada crest, including watersheds north of SR-18. In order to carry out its mission to preserve and enhance water quality and to meet its goals (protect human health, protect/improve aquatic life and surface water quality, support disadvantaged communities, and to respond to and prepare for climate change), the Lahontan Regional Water Quality Control Board set forth key efforts for 2015, outlined below.

**Nitrate and Salts in groundwater**

- Ensure compliance with Drinking Water Replacement Water Orders (dairies and Barstow wastewater treatment plant);
- Require source control at dairies;
- Require groundwater remediation at LACSD No. 20 and Barstow;
- Review Mojave and Indian Wells Salt and Nutrient Management Plans;
- Work with local government agencies to complete adequate Local Area Management Plans (LAMPs) for regulating onsite wastewater systems;
- Revise wastewater treatment plant permits to require infrastructure improvements and reduced nitrogen and salt loading to groundwater;
- Develop and implement strategy for irrigated lands

**Chromium in groundwater**

- Oversee Pacific Gas and Electric (PG&E) Hinkley Compressor Station cleanup, issue new Order and ensure background study completion;
- Investigate Ducommon chemical manufacturing;
- Investigate TXI cement plant

**Perchlorate in ground waters**

- Request funds for cleanup of Barstow perchlorate;
- Support Division of Drinking Water assistance grant for perchlorate impacted area

**Petroleum in groundwater**

- Close cleanup sites that are a low-threat to public health and the environment;
- Identify recalcitrant sites and require priority sites to clean up groundwater

**Other pollution problems in groundwater**

- Support Hinkley community to address arsenic, nitrate, and supply issues
- Require increased groundwater protection at American Organics Composting
- Require groundwater investigation, cleanup, and replacement water at PCE impacted sites
- Identify priority groundwater pollution cases and require investigation, plume control, cleanup
- Apply appropriate remedies (active, monitored natural attenuation, or combination)

**Bacteria in surface waters**

- Participate in statewide grazing regulatory action program
- Continue to implement Proposition 84 Grazing Grant
- Update the Region's bacteria standards in collaboration with State Board's statewide bacteria objectives project
- Work with partners in Bishop Creek watershed to address sources of bacteria pollution

**Acidic Drainage at Leviathan Mine**

- Continue Water Board efforts to prevent discharge of untreated acid mine drainage into Leviathan Creek.
- Provide input to United States Environmental Protection Agency (USEPA) on alternatives for a final remedy

**Mercury in surface waters**

- Analyze fish tissue from Susan River to verify water quality impairment

- Participate in statewide policy for reservoirs mercury control program

### **Protect Aquatic Life and Surface Water Quality**

- Track implementation of Lake Tahoe, Truckee, Squaw Creek, Indian Creek Reservoir, Heavenly Valley Creek, and Blackwood Creek Total Maximum Daily Load requirements
- Develop partnership agreements to implement supplemental environmental projects program
- Require avoidance and mitigation for construction projects to protect wetlands and riparian areas
- Develop publicly available guidance for using regulatory and monitoring tools to protect and restore water quality (i.e., NPDES/ waste discharge requirements for construction and industrial; 401 Certification/WDR for dredge and fill; bioassessment/rapid assessment program)

### **Environmental Justice**

- Participate in Integrated Regional Water Management projects involving disadvantaged communities (e.g. identify drinking water and community sewer needs)
- Work with USEPA to ensure Leviathan Mine final remedy that is protective of Washoe Tribe cultural resources and tribal community health
- Conduct Disadvantaged Community Risk Assessment – investigate domestic well quality
- Incorporate environmental justice when developing waste discharge requirements and permits
- Conduct education and outreach related to new funding programs associated with Water Bond

### **Climate Change**

- Compile workshop input into report and present recommendations for adaptation

- Conduct nearshore monitoring in Lake Tahoe to assess whether water quality changes are related to climate change
- Encourage recycled water projects
- Encourage low impact development (LID) and incorporate LID principles into permits
- Encourage salt and nutrient management plans to consider/incorporate aquifer storage recovery
- Infrastructure improvements, sewer conveyance, and pump stations
- Incorporate climate change adaptations into regulatory decisions (i.e., protect floodplains, wetlands and stream environment zones/riparian).

*LOCAL*SAN BERNARDINO COUNTY GENERAL PLAN**Goals:**

- CO 5.** The County will protect and preserve water resources for the maintenance, enhancement, and restoration of environmental resources.

**Policies:**

- CO 5.1** Because the San Bernardino County Flood Control District is responsible for debris basin construction and maintenance at the base of the mountains, development in these areas will be coordinated with that agency.
- CO 5.2** The County Water Masters will continue to monitor the County's adjudicated groundwater basins to ensure a balanced hydrological system in terms of withdrawal and replenishment of water from groundwater basins.
- CO 5.3** The County will promote conservation of water and maximize the use of existing water resources by promoting

activities/measures that facilitate the reclamation and reuse of water and wastewater.

**Programs**

1. The County may require water reclamation systems and the use of reclaimed wastewater and other non-potable water to the maximum extent feasible for:
  - a. Agricultural uses,
  - b. Industrial uses,
  - c. Recreational uses,
  - d. Landscape irrigation, and
  - e. Groundwater recharge projects.
2. Apply water conservation and water reuse (reclamation) measures that are consistent with County, state and/or federal policies and regulations on wastewater.
3. Encourage the responsible authority to develop new and strengthen existing conservation and reclamation programs to reduce water consumption and prevent loss or waste of water.
4. Continue promoting public education programs to increase consumer awareness about the need for and benefits of water conservation.
5. Encourage the cities to develop water conservation elements in their general plans and guidelines that can be implemented through the land use planning and development review process.

6. New development will implement feasible water conservation measures recommended by the water agency or purveyor that supplies the development with water.
7. Encourage water agencies to use pricing as a conservation tool and to require water audits to ensure the effectiveness of and continued compliance with water conservation measures.
8. Encourage the responsible authority to develop ordinances to regulate non-essential water use and to establish water conservation measures in areas experiencing groundwater supply problems or overdraft as defined by state and local agencies.

**M/CO 3.7** Discourage the extraction and exportation of native groundwater for commercial purposes due to limited groundwater resources coupled with the increasing demands on this precious resource.

**M/CO 3.8** Coordinate with Mountain wastewater and water agencies in establishing programs designed to use reclaimed wastewater from Mountain sewage systems to recharge the local groundwater basins when consistent with County public health and environmental standards.

**M/CO 3.9** Support and apply water conservation and reuse measures through the development review process.

#### LAKE ARROWHEAD COMMUNITY PLAN

##### **Goals:**

**LA/CO 4.** Enhance and maintain the quality of water from Lake Arrowhead and Grass Valley Lake, their tributaries and underground water supplies.

**Policies:**

- LA/CO 4.1** Require the hook-up to sewers of any properties currently adjacent to lines within the Lake Arrowhead Community Service District through notification by the district.
- LA/CO 4.2** Enforce grading and landscaping standards to reduce soil erosion.
- LA/CO 4.3** Ensure that the County Building Code incorporates appropriate construction activity control measures.

**TELECOMMUNICATIONS***LOCAL*SAN BERNARDINO COUNTY GENERAL PLAN**Goals:**

- CI 15.** The County will improve its telecommunications infrastructure and expand access to communications technology and network resources to improve personal convenience, reduce dependency on non-renewable resources, take advantage of the ecological and financial efficiencies of new technologies, maintain the County's economic competitiveness, and develop a better-informed citizenry.

**Policies:**

- CI 15.1** Maximize the use of telecommunications to reduce transportation and land use demands.
- CI 15.2** Encourage special districts to provide up-to-date telecommunications infrastructure in new home designs.
- CI 15.3** Work with telecommunication industries to provide a reliable and effective network of facilities that is commensurate with open space aesthetics and human health and safety concerns.

## IMPACT ANALYSIS AND MITIGATION MEASURES

### METHODOLOGY

An evaluation of the significance of potential impacts on utilities must consider both direct effects to the resource as well as indirect effects in a local or regional context. Potentially significant impacts would generally result in the loss or degradation of a utility service or obviously conflict with Federal, State, or local agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially affect the resource on region-wide basis.

### THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based, in part, on CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on public services and utilities if it would do any of the following:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- 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;
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- 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;

- Have solid waste disposal needs that would exceed the permitted capacity of the landfill that serves the project;
- Not comply with federal, state, and local statutes and regulations related to solid waste.

## PROJECT IMPACTS AND MITIGATION

<i>Threshold:</i>	<i>Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</i>
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**Impact 4.17-1**      **Implementation of the Project would not result in the Project exceeding wastewater treatment requirements of the applicable Regional Water Quality Control Board. This impact would be *less than significant*.**

The implementation of the proposed Project would involve the use of the existing septic system north of SR-18. Increased usage is expected upon completion of the Project, consequently it would increase the amount of wastewater generated. However, the incremental increase in wastewater generated from the operation of SkyPark at Santa's Village as compared to what the previous Santa's Village attraction generated when it was in operation is not expected to exceed the capacity of the existing septic system. The existing septic system north of SR-18 has sufficient area to handle the liquid waste from operation of the Project without creating a nuisance or contaminating the groundwater.

Additionally, a new septic system would be installed in the campground site (south of SR-18). A percolation test is required prior to installation to ensure the porosity of the soil is adequate to serve as a drain field. Accordingly, Ray W. McDonald & Assoc. Inc. prepared a percolation test and system design on January 2015. Results indicated that the proposed system design for the allocated site has sufficient area to handle the liquid waste from the restroom facility (consisting of 2 laundry units, 2 urinals, 8 toilets, 6 showers, and 8 wash basins/sinks) without creating a nuisance or contaminating the groundwater. Therefore, the existing and proposed septic systems would not result in exceeding wastewater treatment requirements of Santa Ana or Lahontan Regional Water Quality Control Boards.

<i>Threshold:</i>	<i>Would the Project 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?</i>
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**Impact 4.17-2      Implementation of the Project would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. This impact would be *less than significant*.**

The Project will not require or result in the construction of new water treatment facilities or expansion of existing facilities. Refer to Impact 4.17-4 below for more information on water supply.

As mentioned above, a new septic system would be installed in the campground. As a result of the implementation of this Project would result in an increase in generation of wastewater as a result of increased usage. However, addition of the new septic system is anticipated to be well within the capacity of anticipated campground use and the existing septic system on the north side of SR-18 is sufficient to support re-opening and operation of SkyPark at Santa's Village. Wastewater from the Project will not need to be conveyed to a wastewater treatment plant. The Project will not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities. Therefore, impacts regarding water and wastewater treatment facilities would be less than significant.

<i>Threshold:</i>	<i>Would the Project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</i>
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**Impact 4.17-3      Implementation of the Project would not result in the construction of new stormwater drainage facilities or expansion of existing facilities. This impact would be *less than significant*.**

See section 4.9 *Hydrology and Water Quality*, Impacts 4.8-5 for a discussion of stormwater drainage facilities that will be constructed with the proposed Project.

*Threshold:*                      *Would the Project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

**Impact 4.17-4                      Implementation of the Project would not result in a need for new or expanded water entitlements. This impact would be *less than significant*.**

Implementation of the Project would result in an increase in water usage at the site. However, the increased water usage is covered by existing entitlements, and the existing water supplies of the site would be sufficient to meet the Project's needs. The estimated available groundwater resources in the Hooks Creek Subunit has been defined using the term maximum perennial yield which is: The maximum quantity of groundwater perennially available if all possible methods and sources are developed for recharging the basin. The perennial yield of the Hooks Creek Subunit ranges from 120 to 300 acre-feet/year with an average of 226 acre-feet/year.

The Project has an expected total water demand of 17.8 acre-feet/year. The Fire Ring Well would provide water for domestic use and decorative landscaping at the Project site. It is anticipated that the Fire Ring Well would provide approximately 4,800,000 gallons per year (14.7 acre-feet/year). The Meadow Well would be used for decorative landscaping, supplemental water supply for the existing small pond, an orchard, and construction water. The anticipated water demand for the Meadow Well would be 1,000,000 gallons per year (3.1 acre-feet/year). Under normal operating conditions, the Project will rely on these two existing Project wells. The Project site also has a connection to the local water purveyor, Skyforest Mutual Water Company (SMWC), which could also be used in case of emergencies.

The perennial yield of the Hooks Creek Subunit ranges from 120 to 300 acre-feet/year with an average of 226 acre-feet/year. The Project's expected total water demand of 17.8 acre-feet/year is well below the low end of the range of estimated perennial yield of the Hooks Creek Subunit. Accordingly, the Project would not substantially deplete available groundwater supplies and would not result in a need for new or expanded water

entitlements. Therefore, impacts regarding water entitlements would be less than significant.

*Threshold: Would the Project 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?*

**Impact 4.17-5 Implementation of the Project would not require a determination by the wastewater treatment provider that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. This impact would be *less than significant*.**

See 4.17-1 and 4.17-2 Impacts above. Wastewater from the Project will go to two on-site septic systems and will not need to be conveyed to a wastewater treatment plant. The proposed Project does not require a determination from a wastewater treatment provider that it has adequate capacity to serve the project. Most of the Lake Arrowhead Community Plan area is served by the Lake Arrowhead Community Services District (LACSD) for wastewater treatment. However, the Project site is not located within the service area of LACSD or any other wastewater treatment providers.

As mentioned in 4.17-4 Impact above, the Project has a connection to the local water purveyor, Skyforest Mutual Water Company (SMWC), which could be used in case of emergencies. SMWC is a member of Crestline-Lake Arrowhead Water Agency (CLAWA), a water wholesaler delivering imported California State Water Project water to Crestline/Lake Arrowhead area. The existing water supplies on site (Fire Ring Well and Meadow Well) would be sufficient to meet the Project's needs. It is not anticipated that the Project would need to utilize water from SMWC unless there is an emergency. Therefore, the Project would not affect SMWC to supply water to its other clients. This impact would be less than significant.

*Threshold:*                      *Would the Project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

**Impact 4.17-6                      Implementation of the Project would not affect landfill capacity. Therefore, impacts would be *less than significant*.**

The implementation of this Project involves minimal construction: improvements to the existing buildings located north of SR-18, construction of a restroom facility in the proposed campsite (south of SR-18). The proposed Project would not anticipate any demolition. Thus, all of these activities would generate waste that would end up in sanitary landfills at a local level; however, the property owner would recycle and repurpose as much waste as feasible. A Commercial Recycling Program has been developed for operation of SkyPark at Santa's Village. The Program outlines appropriate recycling techniques for each different waste stream.

General onsite recycling consists of using steel, animal resistant recycle and trash receptacles throughout the site. Trash and recycle dumpsters would also be steel and animal resistant and enclosed in gated areas. Burrtec would service the dumpsters on an on-going basis. A SkyPark Recycling Center will be located near the Upper Village Gate, where there will be a sorting receptacle for glass, plastics, and cardboards. The Office Recycling Program would take measures to reduce paper usage, reuse paper, and recycle paper waste. These procedures would be in effect in all offices located at SkyPark at Santa's Village. Park maintenance and land management practices include using reusable mops and cleaning cloths where sanitary; recycling motor oils from maintenance vehicles; and using wood chipper for tree trimmings and spread mulch and grass clippings. Recycling receptacles would also be placed in all food service areas and concessions to encourage guest recycling.

In addition, the Project would be required to recycle or reuse a minimum of 50 percent of its construction debris, as required by the California Green Building Standards Code, further reducing potential impacts regarding landfill capacity. A Recycling and Reuse Plan must be submitted to and approved by the County's Environmental Programs Division before a construction, demolition, or grading permit may be issued. Compliance

with the above would ensure the Project's potential impacts regarding landfill capacity are reduced to a less than significant level.

*Threshold: Would the Project comply with federal, state, and local statutes and regulations related to solid waste?*

**Impact 4.17-7 Implementation of the Project would comply with federal, state, and local statutes and regulations related to solid waste. This impact would be *less than significant*.**

Solid waste statutes and regulations are discussed in the regulatory framework above. The proposed Project would comply with these applicable regulations. Therefore, impacts regarding federal, state, and local statutes and regulations related to solid waste would be less than significant.

## CUMULATIVE IMPACTS

The proposed Project would not result in a significant cumulative impact to public utilities. Although the implementation of the Project is expected to result in increased water usage due to the addition of restrooms, restaurants, and generation of wastewater due an increase in park use, these needs do not rise to a cumulatively significant level given existing water supply and entitlements, the capacity of existing wastewater septic system, and the proposed additional septic system. The increased use of SkyPark at Santa's Village is anticipated to result in an increase in solid waste generation; however, this increase does not rise to a cumulatively significant level given existing landfill capacity.

As discussed throughout this section, the Project does not have a significant and unavoidable impact on public services and utilities. In addition, the Project and other cumulative projects in the County would be required to comply with the above-mentioned regulations pertinent to utilities. Each future development project must comply with all applicable state laws, and each development project must address site-specific utility issues to County standards. Therefore, the proposed Project, in combination with cumulative projects, would have a less than significant cumulative impact on utilities.

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Section 5.0  
OTHER CEQA REQUIRED TOPICS

SKYPARK AT SANTA'S VILLAGE  
DRAFT ENVIRONMENTAL IMPACT REPORT

## **5.0 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT**

### **5.1 CEQA REQUIREMENTS**

Section 15126.2 (b) of the CEQA Guidelines requires that an EIR discuss any significant impacts associated with the Project.

In Section 4.0, *Environmental Analysis*, of this Draft EIR, describes the potential environmental impacts of the proposed Project and recommends mitigation measures to reduce impacts to a less than significant level, where feasible. Chapter 1, *Executive Summary*, contains Table 1.0-3, which summarizes the impacts, mitigation measures, and levels of significance after mitigation.

### **5.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS**

Section 15162(b) of the CEQA Guidelines requires an EIR to discuss the significant environmental effects of a proposed project that cannot be avoided if the proposed project is implemented, including those which can be mitigated, but not reduced to a less than significant level. These impacts are referred to as “significant and unavoidable impacts” of a project. More information on these impacts is found in Section 4 of this Draft EIR. All impacts were found either less than significant without mitigation or reduced to less than significant with incorporation of mitigation measures. Therefore, the proposed Project will not result in significant and unavoidable impacts.

### **5.3 PROJECT IMPACTS**

Implementation of the proposed Project would require the long-term commitment of land and natural resources; however, because proposed environmental conditions would be similar to those currently existing on the Project site, the significance of impacts is limited. Significant and unavoidable impacts are listed below:

- Construction of the proposed Project would require the use of water, timber, steel, sand, gravel, and other minerals and natural resources. Although these uses are

not considered an unusual demand for these resources during construction, they nonetheless represent an incremental increase in demand for nonrenewable resources.

- Nonrenewable energy sources such as oil based fuels would be used during construction and subsequent operations of the Project; and
- Heavy machinery would be used during construction, resulting in proportionate air emissions and noise levels.

Once the average 50- to 100-year life span of the Project is reached, it is probable that the site would continue to support recreational uses. The large investment of capital resources that would be expended on the Project site, including Santa's Village attraction restoration and re-purposing, infrastructure, and amenities would likely continue beyond the average life span of the Project. Consequently, the Project would largely commit the Project site to similar uses in the future.

Construction and implementation of the proposed Project would commit energy, labor, and building materials. This commitment would be commensurate with that of other Projects of similar nature and magnitude. Energy, labor, and building materials would also be committed to the construction of buildings and infrastructure necessary to support the redevelopment of the existing site. Ongoing maintenance of the Project site would entail a long-term commitment of energy resources in the form of natural gas and electricity. This commitment of energy, labor, and building materials would be a long-term obligation, because once the portions of Project site that have been developed, it is highly unlikely that the land could be returned to its original condition. A more in-depth discussion of energy impacts is continued below in Section 5.5, *Energy Conservation*.

#### **5.4 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES**

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the significant irreversible environmental changes that would result from implementation of a proposed project. Examples include: primary or secondary impacts of the project that would generally commit future generations to similar uses (e.g., highway improvements at the access point); uses of nonrenewable resources during the initial and continued phases of the project (because a large commitment of such resources make removal or nonuse

thereafter unlikely); and/or, irreversible damage that could result from any potential environmental accidents associated with the project. The Project would not result in an unusually high demand for nonrenewable resources. As the portion of the Project site that is planned for use again is already developed the proposed redevelopment and additional amenities will not result in a substantial change in type of use of the site or result in changes to the surrounding residential, commercial and forest areas.

## 5.5 ENERGY CONSERVATION

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Appendix F requires a description (where relevant) of the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, the California State Legislature adopted Assembly Bill 1575 (AB 1575) in response to the oil crisis of the 1970s. Appendix F of the CEQA Guidelines provides guidance for assessing potential impacts that a project could have on energy supplies, focusing on the goal of conserving energy by ensuring that projects use energy wisely and efficiently. Because Appendix F does not include specific significance criteria, this threshold is based on the goal of Appendix F. Therefore, an energy impact is considered significant if the proposed project 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 San Bernardino County GHG Emissions Reductions Plan includes reducing 159,423 Metric Tons of Carbon Dioxide Equivalent (MTCO<sub>2</sub>eq) per year from new development by 2020 as compared to the 2020 unmitigated condition. Mitigation of GHG emissions impacts through the GHG Development Review Process (DRP) provides one of the most substantial reduction strategies for reducing external emissions. The DRP procedures for evaluating GHG impacts and determining significance for CEQA purposes will be streamlined by (1) applying a uniform set of performance standards to all development projects, and (2) utilizing Screening Tables to mitigate project GHG emissions. All development projects, including those otherwise determined to be exempt from CEQA will be subject to applicable Development Code provisions, including the GHG performance standards, and state requirements, such as the California Building Code

requirements for energy efficiency. With the application of the GHG performance standards, projects that are exempt from CEQA and small projects that do not exceed 3,000 MTCO<sub>2</sub>eq/ year will be considered to be consistent with the Plan and determined to have a less than significant individual and cumulative impact for GHG emissions.

Energy consumption emissions were calculated using CalEEMod and Project-specific land use data. Electricity would be provided to the Project site from Southern California Edison. The Project would indirectly result in a net increase of 165.01 MTCO<sub>2</sub>eq/year due to energy consumption. The total amount of project-related GHG emissions combined would total 2,900.5 MTCO<sub>2</sub>eq/ year.

The Project would be subject to applicable federal, state, and local regulatory requirements, further reducing Project-related GHG emissions. The proposed Project would not hinder the State's GHG reduction goals established by AB 32 and other strategies to help reduce GHG emissions. Therefore, a less than significant impact would occur in this regard.

**Section 6.0**  
**EFFECTS FOUND NOT**  
**TO BE SIGNIFICANT**

**SKYPARK AT SANTA'S VILLAGE**  
**DRAFT ENVIRONMENTAL IMPACT REPORT**

EFFECTS NOT FOUND TO BE SIGNIFICANT

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**6.0 EFFECTS NOT FOUND TO BE SIGNIFICANT**

In the course of this evaluation, certain impacts of the proposed Project were found to be less than significant due to the inability of a Project of this scope to create such impacts, the absence of Project characteristics producing effects of this nature, or the ability of mitigation measures to reduce potential impacts to less than significant levels. The following thresholds were found not to be significant, less than significant, or less than significant with incorporation of mitigation measures based on the analysis in Section 4.0, *Environmental Analysis* in this DEIR.

**AESTHETICS**

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features;
- Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area.

**AGRICULTURE AND FORESTRY**

- 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 uses;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- 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 Governmental Code section 51104 (g));

- Result in the loss of forest land or conversion of forest land to non-forest use;
- 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.

## **AIR QUALITY**

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Expose sensitive receptors to substantial pollutant concentrations;
- Conflict with or obstruct implementation of the applicable air quality plan;
- Create objectionable odors affecting a substantial number of people;
- 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 O<sub>3</sub> precursors).

## **BIOLOGICAL RESOURCES**

- 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 Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on federally protected wetlands as defined by Clean Water Act Section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

## CULTURAL RESOURCES

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Have a substantial adverse effect on a Tribal Cultural Resource;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources;
- Disturb any human remains, including those interred outside of formal cemeteries.

## GEOLOGY, SOILS, AND SEISMICITY

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- 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 active fault trace. Refer to Division of Mines and Geology Special Publication 42;

- Strong seismic groundshaking or seismic-related ground failure, including liquefaction and lateral spreading; or
- Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse;
- 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.
- 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.

### **GREEN HOUSE GAS EMISSIONS/ CLIMATE CHANGE**

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

### **HAZARDS AND HAZARDOUS MATERIALS**

- Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials;
- 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;

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- 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;
- 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;
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan;
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas and where residences are intermixed with wildlands.

## HYDROLOGY AND WATER QUALITY

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new 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);
- 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 which would result in substantial erosion or siltation on- or offsite;

- 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 runoff in a manner which would result in flooding on- or offsite;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- 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;
- 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;
- Inundation by seiche, tsunami, or mudflow.

## LAND USE

- Physically divide an established community;
- 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;
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

## MINERAL RESOURCES

- 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;

- 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.

## **NOISE**

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- 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; and
- 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.

## **POPULATION AND HOUSING**

- 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).
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

## **PUBLIC SERVICES**

- 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:
  - Fire protection;
  - Police protection;
  - Schools;
  - Other public facilities.

## RECREATION

- 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;
- 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.

## TRANSPORTATION AND CIRCULATION

- 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;
- 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;

- 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;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

## UTILITIES

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- 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;
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- 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;
- Have solid waste disposal needs that would exceed the permitted capacity of the landfill that serves the project;
- Not comply with federal, state, and local statutes and regulations related to solid waste.

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## SECTION 7.0

### GROWTH INDUCING IMPACTS

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#### 7.0 GROWTH INDUCING IMPACTS

Section 15126 of the CEQA Guidelines requires that an EIR discuss a Project's potential to foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines also indicate that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. This section of the EIR analyzes such potential growth-inducing impacts, based on criteria suggested in the CEQA Guidelines.

In general terms, a Project may foster spatial, economic, or population growth in a geographic area if it meets any one of the following criteria:

1. Remove an impediment to growth (e.g., establish an essential public water or wastewater service or provide new access roads to an area);
2. Foster economic expansion or growth (e.g., change revenue base, expand employment, etc.);
3. Foster population growth (e.g., construct additional housing), either directly or indirectly;
4. Establish a precedent-setting action (e.g., an innovation, a change in zoning, or a general plan amendment approval); or
5. Develop or encroach on an isolated or adjacent area of open space (distinct from an "infill" type of Project).

Should a Project meet any one of the above-listed criteria, it may be considered growth-inducing. The potential growth-inducing impacts of the proposed Project are evaluated against these five criteria in this section.

Section 15126.2(d) of the CEQA Guidelines requires that an EIR "discuss the ways" a Project could be growth inducing and to "discuss the characteristics of some Projects that

may encourage activities that could significantly affect the environment.” However, the CEQA Guidelines do not require that an EIR predict (or speculate), specifically where such growth would occur, in what form it would occur, or when it would occur. The answers to such questions require speculation, which CEQA discourages (see CEQA Guidelines §15145).

## **REMOVAL OF A BARRIER TO GROWTH**

Remove an impediment to growth (e.g., establish an essential public water or wastewater service or provide new access roads to an area); or General Plan Amendment (GPA).

The Project site has existing infrastructure and is served by the following utility providers: Skyforest Mutual Water Company for potable water, Southern California Gas Company for natural gas, and Southern California Edison for electricity. The Project site is not connected to a waste water service and uses onsite septic systems for wastewater. Extensions from the existing lines would be extended to provide service to the campground site south of SR-18. A septic system for wastewater will be constructed for the campground site. Therefore, implementation of the project will not result in the construction of additional water or wastewater service that would extend to areas beyond the project site, removing an impediment to growth and supporting additional development.

SR-18 already provides access to the site. Implementation of the Project will not result in construction of new roads that would provide access to areas that do not currently have access. Therefore, the Project is not providing new essential infrastructure and thereby removing an impediment to growth.

## **ECONOMIC GROWTH**

Currently economic activity on the Project site is nonexistent, as the Santa's Village attraction has been closed since 1998. Implementation of the Project would result in re-investment in the community, as realized by opportunities to increase local employment. It is reasonable to assume that future events held at the Project site and the ability of the Project to attract new users would result in increased economic activity within the

community of Skyforest, as the visitors to SkyPark would also likely increase the use of local gas stations, restaurants, and other businesses along SR-18.

Construction activities required to implement the Project including renovation of existing facilities, expanded recreational facilities, campground amenities, extension of utilities to the campground and traffic improvements on SR-18 would result in a temporary increase in construction jobs in the region. As construction jobs are temporary they are not anticipated to generate population growth in the area.

Operation of SkyPark is anticipated to result in approximately 65 year round positions with up to an additional 175 seasonal positions during peak season. Due to the low job to household ratio in the Mountain region it is expected that any long-term/operational jobs generated would likely will be filled by existing residents. The proposed Project would create enough jobs that would generate the need for new housing development in Mountain region where housing is already available.

## **POPULATION GROWTH**

CEQA requires the consideration of the potential direct and indirect growth inducing impacts of a proposed project. Implementation of the proposed Sky Park at Santa's Village project would not induce the construction of new homes, and thereby result in direct residential growth.

As outlined above, although the Project will result in new employment opportunities it is not anticipated to result in enough jobs that would require the construction of housing because existing housing is not available. Also, it is expected that jobs generated by the Project would likely be filled by people who already live in the mountain area.

## **ESTABLISHMENT OF A PRECEDENT SETTING ACTION**

The proposed Project includes a General Plan Amendment to change the Land Use District from Lake Arrowhead /Special Development- Residential (LA/SD-RES) & Lake Arrowhead/Single Residential-14,000 square foot minimum lot size (LA/RS-14M) to Lake Arrowhead/Rural Commercial (LA/CR) on 152.92 acres. The proposed GPA would change the existing land use designation of LA/SD-RES and LA/RS-14m, which allows

residential development, to LA/CR, which allows for rural commercial development as well as residential, one residence per parcel. Once the proposed GPA is adopted, future development of the site for anything other than commercial and one residence per parcel would require a GPA. As a GPA would be required it would be more difficult to develop the site with residential uses with implementation of the proposed Project as compared to the existing conditions today. Thus, implementation of the Project and associated GPA is actually population growth prohibitive.

## **ENCROACH ON OPEN SPACE**

The Project site is comprised of approximately 152.92 acres of forest land, including a historic meadow, a pond, and existing buildings that were used in SkyPark Santa's Village prior to its closing in 1998. Following the park's closure, the property was purchased by the Skyforest Company and was used primarily to store logs and as a grinding site following the bark beetle outbreak in 2002. The stored wood has been removed and the new property owner would convert this area to a renewed SkyPark at Santa's Village; whilst integrating existing buildings, restoring the meadow, and adding new recreational amenities on site. US Forest Service land, which is open space, is located directly to the east and south of the Project site. As the Project is a re-opening of a historic use, the Santa's Village attraction, in its existing location the Project will develop or encroach on an isolated or adjacent area of open space. The proposed campground will be located adjacent to the US Forest Service land but it will be retained on site and in an area next to SR-18 that has been disturbed by fires and storage and processing of bark beetle infested timber.

## **CONCLUSION**

Re-opening of the park would attract local and non-local visitors which would be expected to also have moderate positive impact on local businesses and the local economy. The Project does not include the construction of new houses. As outlined above, the Project will not result in any of the following: remove an impediment to growth, foster substantial economic expansion or growth, establish a precedent-setting action, or develop or encroach on an isolated or adjacent area of open space. Therefore, the proposed Project would have a less than significant growth-related impacts.

# Section 8.0 ALTERNATIVES

SKYPARK AT SANTA'S VILLAGE  
DRAFT ENVIRONMENTAL IMPACT REPORT

**SECTION 8.0**

**ALTERNATIVES TO THE PROPOSED PROJECT**

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**8.0 ALTERNATIVES TO THE PROPOSED PROJECT**

**8.1 INTRODUCTION**

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe a range of reasonable alternatives to the Project, or a range of reasonable alternatives to the location of the Project, that could feasibly attain the basic objectives of the Project. An EIR does not need to consider every conceivable alternative project, but it does have to consider a range of potentially feasible alternatives that will facilitate informed decision making and public participation.

Per Section 15126.6(a) of the CEQA Guidelines, the discussion of alternatives must include several different issues. The discussion of alternatives must focus on alternatives to the Project, or to the Project location, which will avoid or substantially reduce any significant effects of the Project, even if the alternatives would be more costly or hinder to some degree the attainment of the Project objectives. The “No Project” alternative must also be evaluated. The “No Project” analysis must discuss the existing conditions and what would reasonably be expected to occur in the foreseeable future if the Project was not approved. The range of alternatives required is governed by a “rule of reason.” Therefore, the EIR must only evaluate those alternatives necessary to permit a reasoned choice. The alternatives must be limited to only ones that would avoid or substantially lessen any of the significant effects of the Project.

Additionally, an EIR should not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative. The CEQA Guidelines also require an EIR to state why an alternative is being rejected. If the County ultimately rejects any, or all alternatives, the rationale for rejection will be presented in the findings that are required before the County certifies the EIR and takes action on the Project. According to Section 15126.6(f)(1) of the CEQA Guidelines, among the factors that may be taken into account when addressing feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure,

general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the applicant could reasonably acquire, control, or otherwise have access to the alternate site.

The Project alternatives are evaluated to determine the extent to which they attain the basic Project objectives of the County, while significantly reducing or avoiding any significant effects of the Project. The Project objectives are outlined in Section 3.5, *Project Objectives*, in Chapter 3.0, *Project Description*, of this EIR.

The objectives of the Project include the following:

- Rehabilitate and repurpose the existing Santa's Village attraction and re-open for the public to enjoy;
- Provide the opportunity for economic stability in the surrounding mountain communities;
- Provide a balance between both passive and active recreational uses that meet the demands of the community and surrounding area;
- Provide the opportunity to become a role model for future sustainable, conservation-based recreation parks in the State;
- Promote the importance of wildlife and habitat education through eco-tourism;
- Provide job training and career placement in partnership with Rim of the World School district through "Pathways" a Regional Occupational Program and other outreach programs.
- Restore the existing meadow on site through the implementation of a conservation plan prepared by the US Department of Agriculture, Natural Resources Conservation Service;
- Provide the opportunity for a healthier community through outdoor recreation activities such as hiking, biking, fishing, climbing and environmental studies;
- Revitalize the existing pond to improve overall hydrology and further support recreational activities;
- Provide additional facilities where community gathering events can be held;

- Provide safe traffic access into and through the Project area;
- Provide adequate parking facilities within the Project area;
- Provide camping opportunity to further cater to tourism within the Project area;
- Provide on-site operation and maintenance for hospitality, recycling, enhancement; and
- Provide on-site security support.

As outlined in more detail in the Environmental Analysis sections of this DEIR (Section 4.1-4.17), implementation of the proposed Project will not result in significant and unavoidable impacts.

## 8.2 ALTERNATIVES TO THE PROPOSED PROJECT

As noted previously, the CEQA Guidelines (Section 15126.6(e)(2)) require that the alternatives discussion include an analysis of the “No Project” Alternative. Pursuant to CEQA, the “No Project” Alternative refers to the analysis of existing conditions (i.e., implementation of current plans) and what would reasonably be expected to occur in the foreseeable future if the Project was not approved. Potential environmental impacts associated with two alternatives are compared below to assess impacts from the Project. These alternatives include: 1) “No Project” Alternative; and 2) Residential Development Alternative. Refer to Table 8.0-1, *Comparison of Alternatives*, for an impact matrix that compares the Alternatives to the proposed Project.

**Table 8.0-1: Comparison of Alternatives**

Topic	Alternative 1: “No Project” Alternative	Alternative 2: Residential Development Alternative
Aesthetics, Light, and Glare	<	>
Agriculture and Forestry	=	>
Air Quality	<	>
Biological Resources	<	>
Cultural Resources	=	>

Topic	Alternative 1: “No Project” Alternative	Alternative 2: Residential Development Alternative
Geological Resources	<	=
Greenhouse Gas Emissions	<	>
Hazards and Hazardous Materials	<	=
Hydrology, Drainage, and Water Quality	>	>
Land Use	=	>
Mineral Resources	=	=
Noise	<	>
Population and Housing	=	=
Public Services	=	>
Recreation	>	>
Transportation and Circulation	<	>
Utilities	=	>
Achieves Project Objectives	NO	NO

- = Impact is equivalent to impact of proposed Project (neither environmentally superior nor inferior).
- < Impact is less than impact of proposed Project (environmentally superior).
- > Impact is greater than impact of proposed Project (environmentally inferior).

Table 8.0-2, *Project Objectives Consistency Analysis*, identifies objectives consistency for each of the proposed alternatives.

**Table 8.0-2: Project Objectives Consistency Analysis**

Project Objective	Alternative 1: “No Project” Alternative	Alternative 2: Residential Development Alternative
	<b>Consistent:</b>	<b>Consistent:</b>
Rehabilitate and repurpose the existing Santa’s Village attraction and re-open for the public to enjoy	No	No
Provide the opportunity for economic stability in the surrounding mountain communities	No	No

Project Objective	Alternative 1: “No Project” Alternative	Alternative 2: Residential Development Alternative
Provide a balance between both passive and active recreational uses that meet the demands of the community and surrounding area	No	No
Provide the opportunity to become a role model for future sustainable, conservation-based recreation parks in the State	No	No
Promote the importance of wildlife and habitat education through eco-tourism	No	No
Provide job training and career placement in partnership with Rim of the World School district through “Pathways” a Regional Occupational Program and other outreach programs	No	No
Restore the existing meadow on site through the implementation of a Conservation Plan prepared by the USDA Natural Resources Conservation Service	No	Yes
Provide the opportunity for a healthier community through outdoor recreation activities such as hiking, biking, fishing, climbing and environmental studies	No	No
Revitalize the existing pond to improve overall hydrology and further support recreational activities	No	No
Provide additional facilities where community gathering events can be held	No	No
Provide safe traffic access into and through the Project area	Yes	Yes
Provide adequate parking facilities within the Project area	Yes	Yes
Provide camping opportunity to further cater to tourism within the Project area	No	No
Provide on-site operation and maintenance for hospitality, recycling, enhancement	No	No
Provide on-site security support	No	No

### 8.3 ALTERNATIVE 1: “NO PROJECT” ALTERNATIVE

#### DESCRIPTION OF ALTERNATIVE

The “No Project” Alternative (Alternative 1) assumes that the proposed Project improvements would not be completed, including the restoration and re-purposing of

the existing Santa's Village attraction buildings, the Wilderness Adventure/Zipline and Aerial Park, the Forest Playground and Skybike Monorail, restoration of Hencks Meadow and stocking of the pond for fly-fishing, improved trails for eco-tours, hiking and biking, and the campground.

The "No Project" Alternative assumes that no development would occur on the Project site, and existing Santa's Village attraction buildings and parking lot and disturbed Hencks Meadow and area south of SR-18 would remain in its current state. The Santa's Village attraction would continue to be closed to the public. As outlined in Table 8.0-2 Project Objectives Consistency Analysis above, this alternative does not meet any of the project objectives with the exception of providing adequate traffic access and adequate parking. This is because the current traffic access and parking is adequate for the existing use, as personal office space for the current property owner.

#### IMPACT COMPARISON TO THE PROPOSED PROJECT

##### Aesthetics, Light, and Glare

Implementation of Alternative 1 would not alter the scenic vista of Project site at all, as it would remain in its current state. No new or additional facilities would be constructed, and therefore, the scenic resources including the forest and open space of Hencks Meadow in the existing property would remain intact. Additionally, no new sources of light and glare would be constructed. Therefore, when compared to the proposed Project, new light impacts associated with Alternative 1 would be less.

However, under the No Project alternative the existing Santa's Village attraction buildings would not be renovated and the restoration and conservation of Hencks Meadow in accordance with the USDA Natural Resources Conservation Service's Conservation Plan would not be implemented, which would include an aesthetic improvement to both. Retaining the site in its current condition would result in less than significant impacts associated with aesthetics, light, and glare.

### Agriculture and Forestry

The Project site is not mapped as Prime Farmland, Unique Farmland, Farmland of Statewide Importance. The Project site is not zoned for agriculture or under a Williamson Act contract. Therefore, the proposed Project will not result in impacts to Farmland or land zoned for agriculture or under Williamson Contract. The Project site is not zoned for forest land or timberland. The implementation of the proposed Project would not result in the loss of forest land. Construction activities for the proposed improvements are primarily located in areas that are already developed, disturbed, and/or are open and lack trees.

Alternative 1 would not include any improvements. As with the proposed Project, Alternative 1 would not result in impacts to Farmland, or land zoned for agriculture or under Williamson Act contract. Alternative 1 would not result in the loss of forest land or land zoned for forest land or timberland.

### Air Quality

Implementation of Alternative 1 would not increase air quality impacts over current conditions. No additional traffic is anticipated to occur over current conditions, and therefore, would not increase air quality impacts. Implementation of Alternative 1 would not generate increased automobile trips to the site because no improvements would be implemented and the park would not be re-opened to the public. Additionally, because no construction would occur, no construction-related air quality emissions would be generated. Air quality impacts from Alternative 1 would be less than the proposed Project.

### Biological Resources

As outlined in the *Habitat Assessment* prepared for the Project site there are three sensitive plant species that have a moderate potential to occur in the undeveloped/forested areas: silver-haired ivesia, Parish's yampah, and Laguna Mountains jewelflower (not state or federally listed, but CNPS Rare Plant). Based on habitat requirements for specific species and the availability and quality of habitats needed by each sensitive wildlife species, it was determined that the project site has a high potential to support Andrew's marble butterfly, a moderate to high potential to support bald eagle, lodgepole chipmunk and

white-eared pocket mouse. There is a low potential to support rosy boa, coast horned lizard, American badger, and two-striped garter snake. The southern rubber boa (SRB) is designated as a threatened species under the CESA and designated by the USFS Regional Forester as a Forest Service sensitive species. Large portions of the site support suitable habitat for the SRB, with high quality habitat in the northern portion of the site and it is assumed to be present on site. San Bernardino flying squirrel (SBFS) is designated as a California species of special concern and a USFS Regional Forester as a Forest Service sensitive species. The site supports suitable habitat for SBFS with high quality habitat located in the northeastern portion of the site. SBFS is assumed to be present on site. The California spotted owl (CASO) is designated as a California species of special concern and a USFS Regional Forester as a Forest Service sensitive species. The site supports suitable habitat for CASO with high quality habitat located in the northeastern portion of the site. A single adult CASO was found immediately offsite in the vicinity of a nest tree and this species is expected to be present on site.

No construction of additional recreation amenities, including additional trails in the forested areas, is proposed to occur with implementation of Alternative 1. Alternative 1 would not include re-opening the site to public use and therefore would not increase human use of hiking and biking trails and indirect impacts to habitat for sensitive species. Therefore, Alternative 1 would have less impacts on sensitive species and habitats than the proposed Project.

### Cultural Resources

Alternative 1 would not include the development of any new amenities or facilities. No ground disturbance would occur, and therefore, no adverse changes would occur to any potential cultural resources.

As outlined in the *Cultural Resources Assessment* for the Project site, the records search and field survey did not identify any known cultural resources within the Project site. Because no historical, paleontological, or archaeological resources exist on the Project site, less than significant impacts would occur and no additional cultural resources work or monitoring would be necessary. Both Alternative 1 and the proposed Project would result in less than significant impacts.

### Geology, Soils, and Seismicity

As previously stated, both Alternative 1 and the proposed Project would be located within the same Project footprint. Less numbers of people and structures could potentially be exposed to geologic hazards under Alternative 1 as compared to the proposed Project scenarios. No significant geologic hazards are anticipated to occur. Although implementation of the proposed Project would be mitigated to a level of less than significant Alternative 1 would have less people and structures on site and therefore less potential for exposure to geologic hazards.

### Greenhouse Gas Emissions

No construction would occur with the implementation of Alternative 1, and therefore, no construction-related greenhouse gas emissions would be generated. Implementation of Alternative 1 would not generate increased automobile trips to the site because no improvements would be implemented and the park would not be re-opened to the public. Therefore, no increase in operational greenhouse gas emissions would occur over existing conditions, which is less than the proposed Project. The proposed Project and Alternative 1 would not result in significant impacts associated with greenhouse gas emissions.

### Hazards and Hazardous Materials

Alternative 1 would not include the development of additional recreational amenities and increase in use at the Project site. The proposed project would transport standard chemicals used in retail and restaurant settings, and for construction. These uses are not expected to use significant quantities of hazardous materials or to generate significant quantities of hazardous wastes. As Alternative 1 would not increase public use of the site and associated increase in use and transport of standard chemicals in retail, restaurants, maintenance, etc., it would have less potential impacts than the proposed Project. However, both Alternative 1 and the proposed Project have less than significant potential impacts associated with hazards and hazardous materials.

### Hydrology and Water Quality

Alternative 1 would not include the development of additional recreational amenities, and the Project site would continue to operate as personal office space for the property

owner. No potential construction hydrology and/or water quality issues would occur with Alternative 1. All hydrology impacts associated with implementation of the proposed Project would be considered less than significant. Alternative 1 does not include restoration and conservation of Hencks Meadow and installation of three water & sediment control basins and rock-lined waterway between them, which would result in an improved water quality exiting the developed/disturbed portion of the site and entering downstream surface waters. Thus, Alternative 1 would result in greater impacts than the proposed Project related to long term hydrology and water quality.

#### Land Use

Alternative 1 would not include the development of additional recreational amenities, and the Project site would not be re-opened for public use. No potential land use inconsistencies would occur, as no land use changes would occur with Alternative 1. Therefore, impacts regarding land use would be less than significant.

#### Mineral Resources

The Project site is located in an area mapped as Mineral Resource Zone 4 (MRZ-4) which includes areas where no known occurrences of mineral resources exist. The Project site is not located on an important mineral resource recovery site. Therefore, the proposed Project will not result in impacts to mineral resources. Like the proposed Project, Alternative 1 will not result in impacts to mineral resources.

#### Noise

No construction would occur with the implementation of Alternative 1. Therefore, no construction-related noise would be generated. Implementation of Alternative 1 would not generate increased automobile trips to the site because no improvements would be implemented and the park would not be re-opened to the public. Therefore, no operational noise impacts would occur over existing conditions. Therefore, when compared to the proposed Project, Alternative 1 would result in reduced construction and operational noise impacts.

### Population and Housing

Although the proposed Project would create new long-term employment opportunities, it would not create enough jobs that would generate the need for new housing development in an area where housing is already available. The proposed Project will not result in displacement of housing and necessitate the need for replacement housing elsewhere. The proposed Project will not result in impacts associated with population and housing. As with the proposed Project, Alternative 1 will not result in impacts associated with population and housing.

### Public Services

Under Alternative 1, no increased impacts on public services would occur, as the Project site would remain in its existing state. No additional amenities would be developed as part of Alternative 1, and therefore, increased public service demands would not occur.

### Recreation

No additional recreational amenities would occur with implementation of Alternative 1, and the Project site would remain in its current state.

Alternative 1 would not renovate and re-purpose the existing Santa's Village attraction; the former recreational use and existing developed area with existing access would not be utilized. As Alternative 1 would not maximize the diverse recreational opportunities of the site for the community, when compared to the proposed Project, Alternative 1 would have greater impacts when compared to the proposed Project related to recreation.

### Transportation and Traffic

Implementation of Alternative 1 would not include the development of additional amenities and therefore, no additional traffic would be generated.

While the proposed Project would increase the intensity and usage of the Project site, and therefore would increase traffic to and from the site, traffic impacts are considered to be less than significant with implementation of mitigation measures. Minor traffic impacts are anticipated to occur during construction of the Project. However, with

implementation of a Traffic Management Plan, impacts are anticipated to be less than significant.

### Utilities

Under Alternative 1, no increased impacts on utilities would occur, as the Project site would remain in its existing state. No additional amenities and uses would be developed as part of Alternative 1, and therefore, increased utility demands would not occur. The site is currently served with a gas line, water line and power. Under Alternative 1 these would not need to be extended to the portion of the site south of SR-18 to serve the campground.

The proposed Project is anticipated to generate an increased demand of utilities (electricity, gas, water and generation of waste water and trash) when compared to existing use of the site. However, as service providers have capacity this increased demand the proposed Project would also result in less than significant impacts related to utilities.

### ABILITY TO MEET PROJECT OBJECTIVES

Alternative 1, the "No Project" Alternative, would not meet any of the Project objectives, with the exception of adequate traffic access and parking facilities (as there is adequate access and parking for the existing uses). The "No Project" Alternative would continue to be closed to the public for recreational use.

## **8.4 ALTERNATIVE 2: RESIDENTIAL DEVELOPMENT ALTERNATIVE**

### DESCRIPTION OF ALTERNATIVE

A portion of the Project site is designated as Lake Arrowhead/Single Residential- 14,000 Square Foot Minimum lot size (LA/RS-14M). Areas to the north and west of the Project site are also designated as LA/RS-14 and include existing residential lots/homes. If the proposed Project were not to be implemented it is anticipated that the site may be developed as residential, consistent with the residential community to the north and west with a minimum lot sizes of 14,000 square foot. The total Project site, north and south of

SR-18 is 152.92 acres. It is anticipated that even if the site was developed as residential that Hencks Meadow, the pond, Hooks Creek and associated riparian habitat would not be developed, approximately 11.4 acres, and that the steep southern facing slopes on the southern portion of the property would not be developed, approximately 27.8 acres. This would leave approximately 114 acres for a maximum of 354 residential lots (14,000 square foot minimum) and associated roadways.

#### IMPACT COMPARISON TO THE PROPOSED PROJECT

##### Aesthetics, Light, and Glare

Construction of residences along SR-18 would be consistent with residential development to the west of the Project site along SR-18, but it would change the aesthetic setting of the site from Santa's Village attraction and forest to residential. The addition of up to 354 residences would substantially increase the amount of lighting in the area. Although all lighting would be required to adhere to County lighting ordinances and directed downward it is anticipated Alternative 2 would increase ambient nighttime lighting within the Project site as compared to the proposed Project. When compared to the proposed Project Alternative 2 would have greater impacts related to aesthetics and lighting.

##### Agriculture and Forestry

The Project site is not mapped as Prime Farmland, Unique Farmland, Farmland of Statewide Importance. The Project site is not zoned for agriculture or under a Williamson Act contract. Therefore, Alternative 2 will not result in impacts to Farmland or land zoned for agriculture or under Williamson Contract. The Project site is not zoned for forest land or timberland. However, a large portion of the Project site contains mixed conifer forest (approximately 93 acres) that would be impacted from construction of up to 354 residential lots in Alternative 2.

##### Air Quality

Construction of Alternative 2 would require disturbance and earthmoving activities on a much larger footprint resulting in a greater generation of particulate matter/dust. Construction would also require more equipment and therefore generate more construction equipment emissions. Residential units generate multiple vehicle trips per

day. It is anticipated that the number of trips from the residences per day, with peak trips Monday through Friday associated with work and school, would be greater than the number of trips generated by visitors, with peak trips on weekends and holidays. Therefore, long-term operational air quality impacts from residential trips is expected to be greater than from visitor trips.

### Biological Resources

Although it is anticipated that with Alternative 2 that Hencks Meadow, the pond, Hooks Creek and associated riparian habitat would not be developed, the Project site has forest habitat that supports numerous sensitive wildlife species (Andrew's marble butterfly, bald eagle, lodgepole chipmunk, white-eared pocket mouse, rosy boa, coast horned lizard, American badger, and two-striped garter snake) and potential several sensitive plant species (silver-haired ivesia, Parish's yampah, and Laguna Mountains jewelflower). The southern rubber boa (designated as a threatened species under the CESA and designated by the USFS Regional Forester as a Forest Service sensitive species), the San Bernardino flying squirrel (designated as a California species of special concern and a USFS Regional Forester as a Forest Service sensitive species), and the California spotted owl (designated as a California species of special concern and a USFS Regional Forester as a Forest Service sensitive species) are expected to be present on site. Alternative 2 would result in a substantial loss of forest habitat that supports these sensitive species, which would be a significant impact. Alternative 2 would result in greater impacts than the proposed Project related to biological resources.

### Cultural Resources

With build out of the site as residential the Santa's Village attraction would be removed/demolished. Per the Cultural Assessment of the Project site it is recommended that the Santa's Village Historic District (P-36-12758) is eligible for listing in the California Register with the themes of tourism and theme park development under both Criterion 1 and 3. Demolition of the Santa's Village Historic District would result in significant impacts to cultural resources. Also since Alternative 2 will disturb a larger area there is a higher potential that unknown archaeological resources could be unearthed. Alternative 2 would have greater impacts than the proposed Project related to cultural resources.

### Geology, Soils, and Seismicity

All residential structures would be required to comply with the current building code and therefore impacts associated with geology, soils, and seismicity would be less than significant. Alternative 2 and the proposed Project would both have less than significant impacts will compliance with the current building code and recommendations of the geotechnical engineering related to grading and compaction.

### Greenhouse Gas Emissions

Residential units generate multiple vehicle trips per day. It is anticipated that the number of trips from the residences per day, with peak trips Monday through Friday associated with work and school, would be greater than the number of trips generated by visitors, with peak trips on weekends and holidays. Therefore, long-term operational air quality impacts from residential trips is expected to be greater than from visitor trips. Vehicle emissions are a significant contributor to greenhouse gas emissions. Alternative 2 would be expected to generate more greenhouse gas emissions than the proposed Project, a greater impact.

### Hazards and Hazardous Materials

Alternative 2 would utilize standard chemicals used in residences and for construction (paints, oils, cleaning products, solvents, batteries, etc.). These uses are not expected to use significant quantities of hazardous materials or to generate significant quantities of hazardous wastes. Both Alternative 2 and the proposed Project have less than significant potential impacts associated with hazards and hazardous materials.

### Hydrology and Water Quality

Development of a residential tract would require preparation of a Stormwater Pollution Prevention Plan (SWPPP), as a requirement of the General Construction permit, to address potential water quality impacts from construction activities. Development of Alternative 2 would also require preparation of a Water Quality Management Plan that identifies Best Management Practices (BMPs) to address potential water quality impacts after construction from the residences. Alternative 2 is anticipated to generate more pollutants and result in an increase of impervious surfaces as compared to the proposed Project and is therefore anticipated to result in greater impacts to water quality.

### Land Use

A portion of the project is currently designated as LA/RS-14, however, it is the Hencks Meadow area that would be anticipated to be preserved/not developed. The remainder of the Project site is currently designated as LA/SD-RES that allows for the combination of residential, commercial, and/or manufacturing activities that maximizes the utilization of natural as well as man-made resources. Alternative 2 would require a General Plan Amendment to change the designation to LA/RS-14 for the entire site. As the surrounding areas to the north and west to Lake Arrowhead are also LA/RS-14 Alternative 2 would be a compatible adjacent land use. However, immediately west and south of the Project site is US Forest Service forest land. With residences located directly adjacent to the forest land it is anticipated there would be more wildland interface impacts from human presence, including noise and lighting and potentially presence, onto forest land. Alternative 2 would have greater land use impacts than the proposed Project.

### Mineral Resources

The Project site is located in an area mapped as Mineral Resource Zone 4 (MRZ-4) which includes areas where no known occurrences of mineral resources exist. The Project site is not located on an important mineral resource recovery site. As with the proposed Project Alternative 2 will not result in impacts to mineral resources.

### Noise

Both Alternative 2 and the proposed Project would increase the traffic coming to and from the Project site as well as the human presence at the site. Therefore, both the proposed Project and Alternative 2 would increase the result in noise in the area from people and cars. However, it is not anticipated that noise from a residential neighborhood would be greater than people using the recreational facilities in the proposed Project. Therefore, Alternative 2 would result in equivalent noise impacts as the proposed Project.

### Population and Housing

Alternative 2 would result in the construction of up to 354 new single family residences. Alternative 2 will not result in displacement of housing and necessitate the need for replacement housing elsewhere or physically divide an existing community. Alternative

2 will not result in impacts associated with population and housing. As with the proposed Project, Alternative 2 will not result in impacts associated with population and housing.

#### Public Services

Under Alternative 2, increased demand for public services would occur, as it increases the intensity of use at the Project site. Impacts on public services would be greater for Alternative 2 than the proposed Project.

#### Recreation

Alternative 2 would not renovate and re-purpose the existing Santa's Village attraction; the former recreational use and existing developed area with existing access would not be utilized. As Alternative 2 would not maximize the diverse recreational opportunities of the site for the community, when compared to the proposed Project. In addition, Alternative 2 would generate new residents that would increase the demand on existing parks. Therefore, Alternative 2 would have greater impacts when compared to the proposed Project related to recreation.

#### Transportation and Traffic

Residential units generate multiple vehicle trips per day. It is anticipated that the number of trips from the residences per day, with peak trips Monday through Friday associated with work and school, would be greater than the number of trips generated by visitors, with peak trips on weekends and holidays. As Alternative 2 would increase the peak hour trips on the surrounding roadway network, including SR-18, it would have greater impacts than the proposed Project.

#### Utilities

Under Alternative 2, increased demand for utilities would occur, as it increases the intensity of use at the Project site. Impacts on demand for utilities (use of water, electricity, gas and generation of wastewater and trash) would be greater for Alternative 2 than the proposed Project.

#### ABILITY TO MEET PROJECT OBJECTIVES

Alternative 2 would not meet the Project objectives. Alternative 2 would include the development of up to 354 single family residential lots. Alternative 2 would have greater impacts than the proposed Project.

### **8.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

CEQA Guidelines requires that an Environmentally Superior Alternative be identified; that is, an alternative that would result in the fewest or least significant environmental impacts. If the "No Project" Alternative is the environmentally superior alternative, State CEQA Guidelines Section 15126.6 (e)(2) requires that another alternative that could feasibly attain most of the basic Project's basic objectives be chosen as the environmentally superior alternative.

Alternative 1 would result in impacts equivalent to the proposed Project in the areas of agriculture and forestry, cultural resources, land use, mineral resources, population and housing, public services, and utilities. Alternative 1 would result in less impacts than the proposed Project in all other areas. Alternative 2 would result in impacts equivalent to the proposed Project in the areas of geological resources, hazards and hazardous materials, mineral resources, and population and housing. Alternative 2 would result in greater impacts than the proposed Project in all other areas.

Alternative 1 would not meet the objective of restoring Hencks Meadow, whereas it is expected this objective would be met with implementation of Alternative 2. With the exception of providing safe traffic access and adequate parking, both Alternative 1 and Alternative 2 do not meet any of the other project objectives.

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## 9.0 REFERENCES

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**Section 10.0**  
**ORGANIZATIONS AND**  
**PERSONS CONSULTED**

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ORGANIZATIONS AND PERSONS CONSULTED

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**10.0 ORGANIZATIONS AND PERSONS CONSULTED**

**LEAD AGENCY**

**COUNTY OF SAN BERNARDINO**

San Bernardino County Land Use and Services Department

Planning Division

385 North Arrowhead Avenue, First Floor,

San Bernardino, CA 92415-0187

*Contact:* Kevin White, Senior Planner  
Land Use Services Department - Planning Division

**COUNTY ENVIRONMENTAL CONSULTANT TEAM**

**MICHAEL BAKER INTERNATIONAL**

3536 Concourse St, Suite 100

Ontario, CA 91764

*Contact:* Ms. Kari Cano, Project Manager/Senior Environmental Planner  
Mr. Alex Pohlman, Environmental Planner, GIS  
Mr. Ruben Salas, Environmental Planner  
Ms. Renee Gleason, Environmental Planner  
Dr. Thomas McGill, Natural Resources  
Mr. Travis McGill, Field Biologist  
Mr. Thomas Millington, Field Biologist  
Ms. Ashley Barton, Field Biologist  
Mr. Eddie Torres, Director of Technical Studies  
Mr. Achilles Malisos, Manager of Air and Noise Studies  
Ms. Alesia Hsiao, Environmental Analyst  
Ms. Amanda McCallum, Administrative Support

**RVA & ASSOCIATES INC.**

3602 Inland Empire Boulevard, Suite C-310  
Ontario, CA 91764

*Contact:* Ms. Ruth Villalobos  
Ms. Sonya Hooker  
Mr. Seve Villalobos  
Ms. Miranda Losing  
Mr. Fernando Guzman

**BCR CONSULTING**

1420 Guadalajara Place  
Claremont, CA 91711

*Contact:* Mr. David Brunzell

**COMMENTING AGENCIES DURING THE  
NOP COMMENTING PERIOD**

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

Inland Deserts Region  
3602 Inland Empire Blvd., Suite C-220  
Ontario, CA 91764

*Contact:* Leslie MacNair, Regional Manager

**CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

San Bernardino Unit  
Resource Management  
3800 N. Sierra Way  
San Bernardino, CA 92405

*Contact:* Henry Herrera  
Forester I, RPF #2936

**CRESTLINE LAKE ARROWHEAD WATER AGENCY**

24116 Crest Forest Drive  
Crestline, CA 92325

*Contact:* Roxanne M. Holmes  
General Manager

**LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD**

Victorville Branch Office  
14440 Civic Drive, Suite 200  
Victorville, CA 92392

*Contact:* Jan Zimmerman, PG  
Engineering Geologist

**SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS**

818 West 7<sup>th</sup> Street, 12<sup>th</sup> Floor,  
Los Angeles, CA 90017-3435

*Contact:* Ping Chang  
Program Manager II  
Land Use and Environmental Planning

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

21865 Copley Drive  
Diamond Bar, CA 91765-4178

*Contact:* Jillian Wong, Ph.D, Program Supervisor  
Planning, Rule Development & Area Sources

**UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE**

602 South Tippecanoe Avenue,  
San Bernardino, CA 92408

*Contact:* Jody Noiron  
Forest Supervisor

**COMMENTING PUBLIC DURING THE  
NOP COMMENTING PERIOD**

Hugh A. Bialecki, DMD, President (Save Our Forest Association, Inc.)

James Chuang, Environmental Specialist (Southern California Gas Company)

Steven Farrell, Conservation Chair (San Bernardino Mountains Group - Sierra Club)

Susan Walker (Sierra Club Member)