INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION (IP 16-198)

PETERS CANYON REGIONAL PARK
GENERAL DEVELOPMENT PLAN AND
RESOURCE MANAGEMENT PLAN

ORANGE COUNTY, CALIFORNIA

Prepared for:

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JUNE 2019

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ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	degrees Fahrenheit
AB	Assembly Bill
Air Basin	South Coast Air Basin
amsl	above mean sea level
AQMP	Air Quality Management Plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
CMP	Congestion Management Program
CNEL	community noise equivalent level
CHRIS	California Historical Resources Information System
CO	carbon monoxide
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSS	Coastal Sage Scrub
DAMP	Drainage Area Management Plan
dBA	A-weighted decibel
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	Environmental Protection Act
FHWA	Federal Highway Administration
GDP	General Development Plan
GHG	greenhouse gas
GIS	geographic information system
HCP	Habitat Conservation Plan
ICU 2003	2003 Intersection Capacity Utilization
IOD	Irrevocable Offer of Deed
IRWD	Irvine Ranch Water District
IS	Initial Study
L_{eq}	sound pressure level in decibels, equivalent to the total sound energy over a given period of time
LIP	Local Implementation Plan
LOS	level of service
LST	Localized Significance Threshold
MLD	most likely descendent
MND	Mitigated Negative Declaration
mph	miles per hour
MRZ	Mineral Resource Zone
$MtCO_2e$	metric tons of CO_2 equivalent
MWDOC	Metropolitan Water District of Orange County
NAAQS	National Ambient Air Quality Standards

ACRONYMS AND ABBREVIATIONS

Term	Definition
NAHC	Native American Heritage Commission
NCC	Natural Communities Coalition
NCCP	Natural Communities Conservation Plan
NHM	Natural History Museum of Los Angeles County
ND	Negative Declaration
NO_2	nitrogen dioxide
NROC	Nature Reserve of Orange County
O_3	ozone
OC Parks	Orange County Parks Department
OSHA	Occupational Safety and Health Administration
PCRP	Peters Canyon Regional Park
$PM_{2.5}$	fine particulate matter
PM_{10}	inhalable particulate matter
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
RCNM	Roadway Construction Noise Model
RMP	Resource Management Plan
ROG	Reactive Organic Gases
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SHB	polyphagous shot hole borer
SCAG	Southern California Association of Governments
SO_2	sulfur dioxide
UCMP	University of California Museum of Paleontology
UCPP	United Coalition to Protect Panhe
VOC	volatile organic compound
WEAP	Worker Environmental Awareness Program
WQMP	Water Quality Management Plan

SECTION 1.0 – INTRODUCTION

1.1 PURPOSE OF THE NOTICE OF INTENT TO ADOPT AND INITIAL STUDY

All "projects" within the State of California are required to undergo environmental review to determine the environmental impacts associated with implementation of the Project in accordance with the California Environmental Quality Act (CEQA). CEQA was enacted in 1970 by the California Legislature to disclose to decision makers and the public the significant environmental effects of a proposed Project and identify possible ways to avoid or minimize significant environmental effects of a project by requiring implementation of mitigation measures or recommending feasible alternatives. CEQA applies to all California governmental agencies at all levels, including local, regional, and state, as well as boards, commissions, and special districts.

The proposed Project is the adoption of a General Development Plan (GDP) and a Resource Management Plan (RMP), which provide guidance on overall future park development and resource management at Peters Canyon Regional Park (PCRP, Project). The GDP proposes improvements in seven areas of the park to enhance public access and recreation. These include improvements to existing trails and parking, and development of new park facilities. The RMP will ensure long-term guidance on park resource management.

The County of Orange, as the Lead Agency for the Project, is responsible for preparing environmental documentation in accordance with CEQA to determine if approval of the Project could have a significant impact on the environment. As defined by Section 15063 of the CEQA Guidelines, an Initial Study (IS) is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) would be appropriate for providing the necessary environmental documentation and clearance for the Project.

1.2 PROJECT LOCATION AND SITE CHARACTERISTICS

1.2.1 Project Background

In 1992, the County of Orange acquired PCRP from The Irvine Company. Since that time, PCRP has been operating under an Interim Operations Plan (IOP) managed by the County of Orange. Under the current IOP, PCRP has traditional regional park elements (e.g., restrooms, parking, park office, and trails) that are managed by the County of Orange; however, most of the park's activities are passive in nature. Activities include hiking, running, mountain biking, horseback riding, picnicking, dog walking, and bird watching.

In 1996, the park was enrolled in the Central and Coastal Subregion of the Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) reserve known as the Nature Reserve of Orange County (NROC). Despite its proximity to urban development, the NROC supports important habitat for a number of native animal and plant species. The NROC was developed to create a multispecies, multi-habitat reserve system and implement a long-term adaptive management program to protect coastal sage scrub (CSS) and other habitats and species located within CSS. The NCCP/HCP allows for compatible development and uses within the NROC, provided that such development and uses adhere to NCCP/HCP program policies and adaptive management programs. PCRP is subject to provisions of the NCCP/HCP Implementation Agreement, including the preparation of a General Development Plan/Resource Management Plan prior to the establishment of permanent uses and facilities.

In November 2017, the Canyon Fire II burned the northern portion of PCRP surrounding the Upper Peters Canyon Reservoir and Dam (Figure 2). The fire entered PCRP at the corner of Jamboree Road and Canyon View Avenue. It then spread in a southwesterly direction, fed by the wind. The final burn area extends from Canyon View Avenue in the north, to the housing development and Brentwood Drive in the west, Jamboree Road in the east and approximately 33 percent of the northern portion of PCRP toward the south. Vegetation within the areas that were burned in the fire, were destroyed with remnant dead trees and shrubs. The environmental baseline for this document takes into consideration these fire-burned portions of the Project site. In addition, volunteer restoration efforts occurred on November 19, 2017, and January 21, 2018, involving the planting of 800 1-gallon container plants of mixed CSS and transitional species and approximately 70 acres of emerging target non-native species were treated within the burn area post-fire. The baseline environmental settings of each issue area are described prior to the evaluation of the corresponding environmental impacts in Section 3.0, where applicable.

1.2.2 Location

PCRP is a 340-acre regional park located within the cities of Tustin and Orange and within County of Orange unincorporated land (Figure 1: Project Vicinity Map). The Project boundary includes the complete PCRP. The Project site is bordered by Canyon View Avenue to the north; Jamboree Road to the east; Peters Canyon Road to the south; and Skylark Place, Newport Boulevard, and residential units to the west (Figure 2: Project Location Map).

1.3 PROJECT DESCRIPTION

The purpose of the GDP/RMP is to provide a comprehensive, long-term development and management plan to provide safe, educational, and enjoyable public access and recreation while preserving the natural and cultural resource values of the park. The GDP is the master plan for the park and identifies proposed uses, trailheads, staging area locations, and other improvements as well as the general operations and management of the park facility (Figure 3, County of Orange 2018a). The GDP proposes improvements in several areas of the park to enhance public access and recreation. These include improvements to existing trails and parking and development of new park facilities. The RMP provides land management goals and strategies and serves as a framework to manage, protect, and enhance the natural and cultural resource values of the park while providing appropriate public access and recreational opportunities (County of Orange 2018b).

Figure 1: Project Vicinity Map

Figure 2: Project Location Map

1.3.1 General Development Plan

The GDP identifies recreational improvements and management approaches focused on enhancing the park's recreational value and habitat preservation. Components of the plan include park background, existing conditions, the outreach process, key improvement areas, the plan for the park, operations and maintenance, and implementation and phasing.

Overall park goals used to guide the design of the GDP include:

- Provide inviting park entry points that offer visitors information about the park's trail system, points of interest, and park rules.
- Preserve and enhance existing trails as well as connections to surrounding regional and local trails while providing a variety of experiences for different age groups and mobility levels.
- Preserve, restore, and enhance the natural character of the park, including vegetation, natural materials and surfaces, and view corridors.
- Provide park visitors with enjoyable experiences compatible with the park's natural environment.
- Include educational opportunities that inform visitors about the park's unique history and cultural and natural resources.
- Ensure the long-term viability of the historic Upper Peters Canyon Reservoir's habitat, water storage, and aesthetic elements.
- Provide amenities that enhance the park visitor's experience.
- Maintain a safe environment for both visitors and staff.
- Provide an opportunity for the community and volunteers to assist with stewardship activities.

The GDP proposes general park improvements that provide visitor-serving enhancements including improvements to park trails; Canyon View staging area enhancements; Lower Peters Canyon Reservoir entry, trailheads, and restroom; Upper Peters Canyon Reservoir enhancements; Big Red Rest Area; and Skylark Place Staging Area. The GDP proposes four areas where trails need to be realigned in order to reduce erosion and provide a better experience for trail users. In addition to these improvements, supporting amenities at many of the improvement locations include drinking fountains, shade structures, landscaping, picnic tables, benches, waste receptacles, information kiosks, and signage. To compliment trail activities, amenities such as benches, waste receptacles, information kiosks, and dog waste bag dispensers will be placed at strategic points along the trails.

The GDP proposes improvements in six areas of the park that will enhance public access and recreation. The proposed improvements for each area are described in the following sections and Table 1 provides the names of existing and proposed trails.

Figure 3: General Development Plan

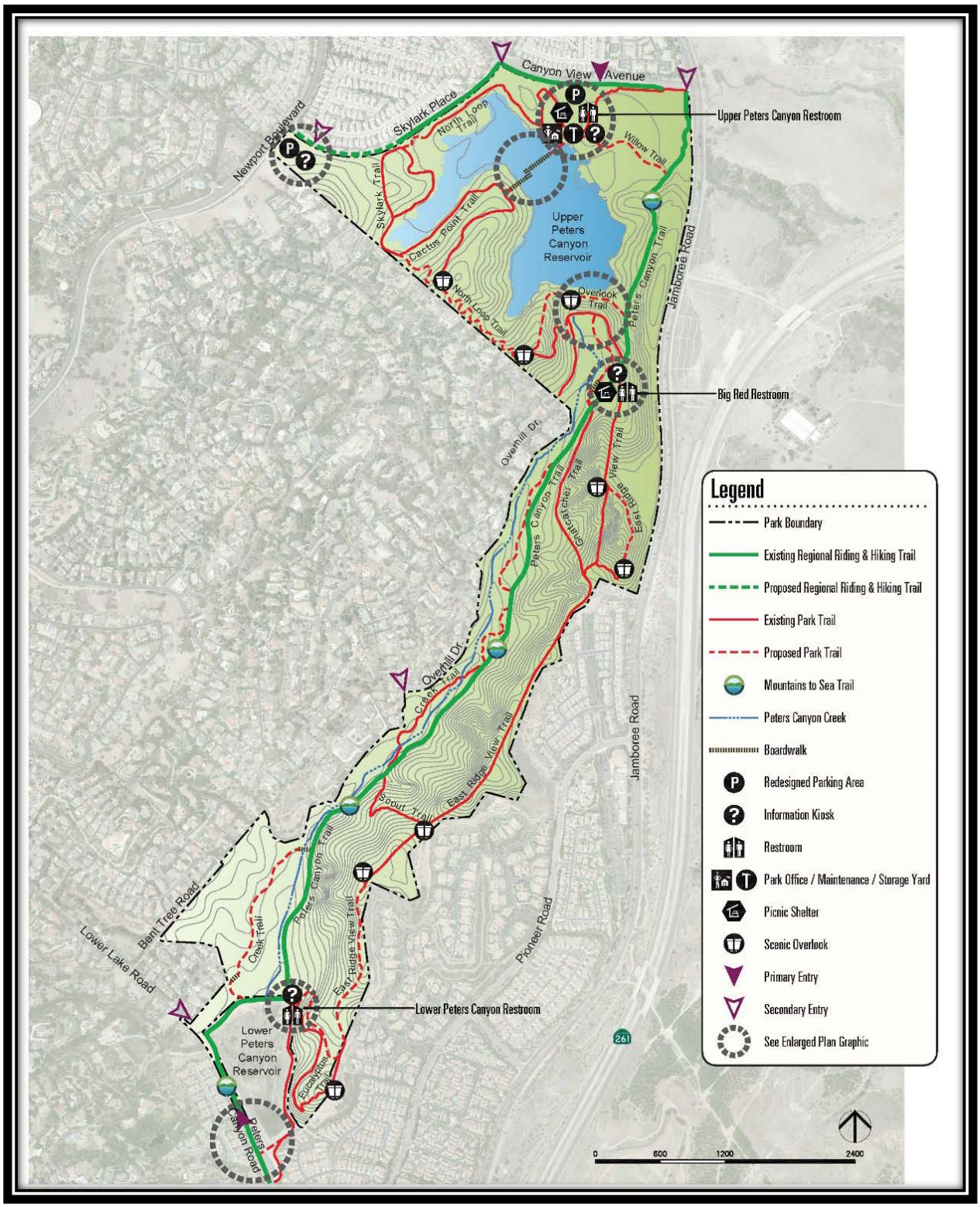


*Exhibit 5.1 from General Development Plan (County of Orange 2018a)

1.3.1.1 Canyon View Staging Area

The existing north park entrance off Canyon View Avenue will continue to function as the main gateway into the park. To improve the main entrance experience for park visitors, Project modifications are proposed to enhance the visual aesthetics, improve parking capacity, and provide safer vehicular and pedestrian circulation.

The proposed improvements to the Canyon View Staging Area include enhancing the sense of arrival through providing a new entry monument sign, stone wall, vehicular access gate, decorative stone paving, and native landscaping. Project modifications consist of redesigning the parking area to improve vehicular, equestrian trailer, and parking circulation. The parking lot will include an island with pull-through parking spaces to accommodate horse trailers. The parking lot surface will consist of decomposed granite. Walkways from the parking areas and relocated parking pay stations will enhance safety for visitors to the park as they exit their vehicles to enter the park. The existing restroom and drinking fountain will remain.

An arrival plaza with shade structures, several small gathering areas, benches, picnic tables, and waste receptacles will be provided. Interpretive, directional, and regulatory signage will delineate trails, display park rules, and educate the visitors about the historic, cultural, and natural park features.

The Project proposes the addition of a small, modular park office with a maintenance/storage facility adjacent to the existing restrooms. This area is proposed to accommodate park staff and materials for operation and maintenance of the park on a full-time basis.

1.3.1.2 Lower Peters Canyon Reservoir Entry, Trailheads, and Restroom

The primary entry point for the southern portion of the site is the Peters Canyon Road entrance; however, this entrance has no vehicular entry point or on-site parking. To create a better entry statement, a new monument sign, park rules sign, and trail signage will be provided. A new pedestrian entrance is proposed north of the maintenance gate, which will direct visitors away from residences to a concrete walkway and stairs to access the existing asphalt maintenance road. New signage will direct park users to a new trailhead.

A new restroom will be provided at the northeast side of the Lower Peters Canyon Reservoir and will replace the existing portable restrooms. Native trees and scrub will be used to provide visual screening. A small rest area will be provided near this restroom with seating areas, park and trail signage, a drinking fountain, waste receptacles, and decorative paving.

1.3.1.3 Upper Peters Canyon Reservoir Enhancements

Reservoir enhancements are proposed at Upper Peters Canyon Reservoir to include more education features about the history of the reservoir, along with new viewing points for visitors to experience the reservoir. Two boardwalks over the Upper Peters Canyon Reservoir will connect the Canyon View Avenue staging area to the North Loop Trail and the Cactus Point Trail. The boardwalks will create interpretive opportunities focused on the reservoir, its aquatic habitat, and ecological resources. The boardwalks will also give visitors the opportunity to experience the reservoir in both wet or dry conditions.

Another viewing opportunity of the reservoir will be provided on the new Overlook Trail along the top of the dam. Small viewing platforms will be built to offer visitors a panoramic view of the park, and the viewing areas will include interpretive signage, benches, and waste receptacles.

1.3.1.4 Big Red Rest Area

Due to public comments provided during community outreach, a restroom is being provided about halfway through the park at the intersection of the East Ridge View Trail and Peters Canyon Regional Riding and Hiking Trail. This rest area is located at the base of a hill known as Big Red, and this natural resting place will provide a restroom and a trail user rest area with small shade structures and a drinking fountain. Additional amenities include shade trees, benches, waste receptacles, trail signage and an information kiosk.

1.3.1.5 Skylark Place Staging Area

The Skylark Place staging area will be a secondary entry to the park and will accommodate overflow parking that typically occurs during peak periods of attendance by park users on weekends and during special events. The area is proposed to be designed similarly to the Canyon View staging area at the main entrance, with an entry monument sign, vehicular access gate, decorative stone paving, and native landscaping.

The parking lot surface will be decomposed granite, and horse trailer parking will be accommodated. Pay stations, connection to existing trails, signage, and waste receptacles would be provided. A landscape buffer of native trees and shrubs will assist in screening the area.

1.3.1.6 Additional GDP Components

Trail Pullout Nodes

A Trail Pullout Nodes Concept plan was provided in the GDP, where potential locations along the interior trails for trail pullout nodes are identified. The nodes can be adjacent to a trail where users can pull off the trail to take a break, rest on a bench, enjoy a view, observe natural habitat and wildlife, and help alleviate the congestion of multiple users. The nodes also provide opportunity areas to restore surrounding habitat.

Amenities

To complement trail activities, amenities such as benches, waste receptacles, signage, information kiosks, and dog waste bag dispensers will be placed at strategic points along the trail paths.

Viewing Opportunities

Benches will be placed along trails, where appropriate, to optimize views of the mountain ranges and the Pacific Ocean as well as close-up points of interest, such as the Upper Peters Canyon Reservoir and the native landscape. Bench placement will take into account the privacy of homes adjacent to the park, the disturbance of habitat, and visitor use patterns.

Table 1: Existing and Proposed Trails

Park Area	Modified / Realigned Trails	Unmodified Trails*	New Trails / Trail Extensions*
Canyon View Staging Area	Lake View Trail (proposed to be renamed *North Loop Trail*) Willow Trail	Peters Canyon Trail Cactus Point Trail	
Skylark Staging Area		Skylark Trail	Trail to connect overflow parking to Skylark Trail
Historic Reservoir Viewing Areas			Boardwalk over reservoir Boardwalk to Lakeview Trail (proposed to be renamed *North Loop Trail*) Overlook Trail (trail on top of dam)
Big Red Rest Area	East Ridge View Trail	Gnatcatcher Trail Creek Trail	Trail closer to Peters Canyon Creek Extension of the Creek Trail
Lower Peters Canyon Trailheads and Restroom		Eucalyptus Trail Scout Trail	Camp Myford Trail Eucalyptus Emergency (vehicular) Access Trail spur

*For a visual representation of existing and proposed trails, please refer to Exhibit 5.1 – General Development Plan (County of Orange 2018a), which illustrates both existing and proposed riding/hiking and park trials in PCRP.

1.3.1.7 Trail Names

For trails within the park that are designated in the County of Orange Master Plan of Regional Riding and Hiking Trails Recreation Element of the General Plan as "regional" that are suggested to be renamed, the new names will be evaluated with the Regional Trails Coordinator for impacts and consistency. Subsequently, any new names will be recommended to be included in the next amendment to the County of Orange Recreation Element.

1.3.2 Resource Management Plan

An RMP has been prepared to document existing baseline conditions and provide a long-term resource management plan for PCRP. The RMP includes goals and strategies for managing and monitoring the park's natural and cultural resources. It will also serve as a guide for future decision making related to public access and recreation, public outreach and education, fire management, exotic/invasive pest and plant control, trail design, biological monitoring, mitigation and restoration, park maintenance, and other management purposes at PCRP. The major goals of the plan are to provide public access while protecting natural and cultural resources by balancing recreation with habitat preservation, enhancement, and restoration activities; to monitor public use and habitat management activities to ensure that sensitive resources are protected; to evaluate effectiveness and progress of habitat management activities; and to develop short- and long-term fire management plans.

1.3.2.1 RMP Goals

The RMP includes goals that outline a management framework for protecting the resources of PCRP. The goals and strategies were developed for seven management plans including Public Access and Recreation Management, Reservoir Management, Cultural Resource Management, Biological Resource Management, Fire Management, Park Operation and Management, and Public Outreach and Volunteer Management. For more information, refer to the complete RMP (County of Orange 2018b). RMP goals are listed below.

Public Access and Recreation Management

- PAR-1: Provide an appropriate range of recreation opportunities and associated infrastructure for visitors to enjoy the park.
- PAR-2: Provide recreational opportunities in balance with protection, restoration, and enhancement of natural, cultural, and historic resources.
- PAR-3: Maintain trails to County standards in accordance with NCCP.
- PAR-4: Maintain safety for visitors and staff. Reduce user conflicts and enhance trail safety.
- PAR-5: Minimize, to the maximum extent practicable, impacts from the siting and construction of new Park facilities on NCCP/HCP Identified Species, CSS, and Covered Habitats in accordance with Section 5.8 of the NCCP/HCP.
- PAR-6: Monitor public access within the park to determine public access issues and quantify impacts.

Reservoir Management

- R-1: Maintain the historic reservoir as a natural aesthetic park feature that supports native habitat in accordance with management agreements.
- R-2: Establish procedures to maintain the reservoir in wet and dry conditions.

Cultural Resource Management

- CR-1: Preserve and protect the cultural, geological, and paleontological resources of the park.
- CR-2: Provide public access and educational programs to interpret cultural, geological, and paleontological resources.

Biological Resource Management

- BR-1: Preserve, protect, and enhance the biological resources of the park in balance with providing public access and recreation.
- BR-2: Manage pests, including plant diseases and non-native plant species, to protect native biological diversity and critical ecosystem functions.

- BR-3: Identify all habitat restoration opportunities.

Fire Management

- F-1: Prevent fire in the park
- F-2: Minimize impacts of fire suppression activities during fire
- F-3: Assist with post-fire habitat recovery including developing and implementing post-fire evaluation and guidelines for appropriate rehabilitation measures to address erosion, revegetation, non-native species, trail stability, security, public safety, and cultural resources; and conducting a post-fire cultural resource assessment in coordination with OCFA.

Park Operations and Management

- POM-1: Provide sufficient staff resources to support park programs, operations, and maintenance, including visitor safety and services, recreational amenities, stewardship, and infrastructure.
- POM-2: Conduct park operations and maintenance activities in accordance with OC Parks Strategic Plan, park RMP, NCCP, and Irrevocable Offer of Deed (IOD).
- POM-3: Develop and provide training on best management practices (BMPs) for regular and unique events (e.g., polyphagous shot hole borers [SHBs], removal of non-natives, etc.).

Public Outreach and Volunteer Opportunities

- POE-1: Expand the volunteer program to support park staff efforts in achieving habitat restoration, non-native species control, trail etiquette signage, and trail maintenance.
- POE-2: Increase public understanding, appreciation, and participation in environmental and cultural stewardship and education.
- POE-3: Increase public outreach.

1.3.2.2 Proposed Management Strategies

A summary of management strategies proposed in the RMP is provided below. For a detailed list of strategies, refer to the completed RMP (County of Orange 2018b).

Public Access and Recreation Management

Proposed strategies will offer access to unique park features, create a consistent park-wide image in signage and amenities, align trails and native vegetation to minimize views of adjacent residences, provide visitor amenities, implement a pilot plan to study trail usage and capacity, rehabilitate and block unauthorized trails. The strategies will formulate standards for quality of natural resources, provide appropriate levels of park staffing, minimize soil erosion, work with Parks Planning and Design Division to develop "trail design criteria," establish annual plans for maintaining sustainable trails, provide annual reports on recreation use and trail conditions, develop trail maintenance BMPs, monitor soil erosion and

slope failure, coordinate emergency response efforts with first responders, and maintain emergency access.

Reservoir Management

Proposed management strategies include developing and implementing annual maintenance plans for invasive plant management, locating new trails to minimize impacts to the reservoir or creek banks, maintaining reservoir in accordance with IOD requirements, educating the park visitors about reservoir history and function. Along with, establishing access into reservoir for maintenance and water quality BMP requirements, incorporating water quality education into outreach efforts, consulting with OC Parks NPDES staff and contractors to conduct BMPs, defining maintenance responsibilities and permitting requirements for each drainage improvement, partnering with OCPW to maintain reservoir for nuisance and storm water drainage purposes, inventorying wetlands, and identifying opportunities for habitat enhancement.

Cultural Resource Management

Strategies for maintaining cultural and historic resources are to develop maps of cultural and paleontological sites of significance, provide training to volunteers and staff on important cultural, geologic, and paleontological information, site infrastructure such that it does not impact archaeological or paleontological sites, and encourage research and develop interpretive materials for public benefit.

Biological Resource Management

Biological resource management includes identifying all habitat restoration opportunities, monitoring the park for sensitive species and protection of habitat for wildlife, nesting, and ecological values; coordinating with NCCP/HCP land managers (the California Resources Agency, the California Department of Fish and Game, the California Department of Forestry and Fire Protection, the California Department of Parks and Recreation, the United States Fish and Wildlife Service (USFWS), the County of Orange, cities within Orange County, the San Joaquin Hills Transportation Corridor Agency, the Foothill/Eastern Transportation Corridor Agency, Orange County Fire Authority, Orange County Flood Control District, the Regents of the University of California, Santiago County Water District, Irvine Ranch Water District, Metropolitan Water District of Southern California, Southern California Edison, the M.H. Sherman Company, Chandis Securities Company, the Sherman Foundation, and the Irvine Company) on resource management activities. Management will include non-native invasive species management and pest management programs and maintenance of NCCP specifications for habitat values; mapping and prioritizing existing, proposed, and potential habitat mitigation and restoration sites; creating BMPs to manage impacts by operations and public use; educating the public on biological resources and stewardship; determining effective measurements of biological resource management activities and implementing appropriate monitoring; supporting improvements to minimize disturbance and impacts to sensitive resources; implementing measures to monitor recreation impacts to natural resources; evaluating wildlife habitat values associated with man-made structures before altering or removing them; managing the reservoir as a natural feature to benefit native wildlife; develop long-term management plans to control non-native plant and animal species; develop and implement BMPs to reduce the spread of invasive plants and shot hole borer infestations; manage pests in buildings while also protecting human health and surrounding natural resources; and monitoring brown-headed cowbirds.

Fire Management

Strategies for fire management include developing and implementing BMPs and protocols for maintaining defensible space; pre-fire planning, fire response and post-fire assessment and activities; coordinating with Orange County Fire Authority (OCFA) on defensible space zone plans; updating the Emergency Access Plan annually; and mapping wildfire occurrences using GIS mapping. Other strategies to protect the park from fire include incorporating recommendations from the NCCP Wildland Fire Management Plan; maintaining emergency access annually; BMPs and protocols with land management partners for establishment of sustainable, non-invasive vegetation; invasive plant management activities; and fire response and post-fire assessment and activities. Strategies also include minimizing impacts of fire suppression activities during fires including removing the minimal amount of vegetation necessary to access or isolate burn areas and avoiding areas during fire suppression where known cultural resources have been documented. Fire recovery strategies include post-fire evaluation and response, guidelines for rehabilitation, restoration program of fire-tolerant native vegetation, documentation of fire locations, dates and ignition sources using GIS mapping, and completion of post-fire cultural resource assessments for incorporation into the Wildfire Management Plan.

Park Operations and Management Plan

Operations and maintenance strategies include providing staff and budget for future staff to adequately operate, hours of operation, manage, maintain, and monitor the park, including a Natural Resources Specialist to manage natural resources and education and outreach programs and guide RMP implementation; additional future staff includes one Senior Park Ranger for weekdays, one Park Ranger II for weekends; one Maintenance Worker for weekdays, and two groundskeepers; developing work plans and BMPs for maintenance and management activities, including land management, habitat restoration, and invasive pest containment; practicing adaptive management by keeping BMPs and strategies updated; engaging staff in collaborative partnerships with other resource agencies; and training park staff on BMPs and permitting.

Public Outreach and Volunteer Opportunities

Strategies include volunteer, outreach, and interpretive programs led by a Natural Resource Specialist and educational programs on habitat restoration and invasive species management to foster public support. OC Parks Planning & Design Division will be consulted to develop a well-designed interpretive and trail signage system. Interpretive and trail signage plans, environmental education programs, information and literature, social media and school programs will be developed. Staff and volunteers will participate in special events, programs, and forums to share information and foster knowledge and appreciation of park resources and facilitate partnership opportunities. Volunteers will participate in a trail management program and will be trained using the Irvine Ranch Conservancy Land Steward Manual as a guide. Increased public outreach will include participating in multi-agency forums to share information and resources, implement outreach opportunities to gain support for resource management goals and strategies, and employ a Natural Resource Specialist to undertake increased outreach scope and effort.

1.3.3 Construction Staging Areas and Disposal Sites

Construction-related staging and disposal areas will be coordinated with park staff, and on-site activities will be located in convenient proximity to vehicle circulation routes, as discussed in Section 7.11 of the GDP. Storage of construction equipment and materials is expected to be in a secure location and in areas

that would avoid blocking viewsheds and/or avoid placement in sensitive natural resources to the extent practicable. Three staging areas have been identified in Figure 4 in the CEQA document, as well as Section 7.2 of the GDP. Each area will be approximately 6,000 square feet, fenced, and accessible to existing vehicular circulation routes.

1.3.4 Construction Personnel and Equipment

The following equipment may be needed for Project construction: watering trucks, loaders, skip loaders, motor graders, roller, backhoes, forklift, Pettibone forklift, cranes, delivery semi-trucks, and crew trucks. This equipment could potentially be used over a worst-case duration of 113 weeks and may involve up to approximately 188 workers. Potential construction staging areas are provided in Figure 4.

In total, the Project proposes:

- 35 semi-truck loads (448 cubic yards) miscellaneous debris removed
- 95 semi-truck loads (1,330 cubic yards) of dirt removed
- 135 semi-truck loads (1,890 cubic yards) of decomposed granite added
- 39 truckloads (250 cubic yards) of concrete added
- 4 semi-truck loads (56 cubic yards) of base rock
- 2 semi-truck loads (28 cubic yards) of sand backfill
- 15,000 board feet of boardwalk added
- 1,200-square-foot ranger station construction
- 1,4000-square-foot wood deck with a 1,250-linear-foot wood fence

Table 2 provides the type and estimated number of equipment for each construction activity.

Figure 4: Potential Construction Staging Areas

Table 2: Equipment per Construction Activity by Project

	Loader	Skip loader	Motor grader	Roller	Backhoe	Fork lift	Pettibone fork lift	Crane	Semi-truck loads (14 CY)	Truck loads (10 CY)	Crew truck	Watering truck
PRIORITY PROJECT												
Lower Peters Canyon Trailheads and Restroom	1	2			2	1		1	23	6	23	2
Skylark Place Staging Area	1	1	1	1	1	1			56	3	15	1
Canyon View Staging Area	1	1	1	1	1	1		1	230	10	20	1
Big Red Rest Area	1	1			1	1		1	21	2	15	1
Historic Reservoir Viewing Areas	2	2			1	2	1		26	15	21	2

1.3.5 Implementation Schedule

The construction implementation will occur between October and February, when practicable. The improvements proposed in the GDP will be implemented over the next 5 to 10 years based on priority projects and available funding (OC Parks and/or grant funding) as noted in the GDP, Chapter 7 – Implementation and Phasing. Improvement projects will be budgeted in both the OC Parks Five-year Strategic Financial Plan and the Capital Improvement Projects budgets that are approved by the Board of Supervisors on an annual basis. Table 3 provides the estimated duration of the construction activities for components of the Project in order of priority, with the highest priority project at the top; the actual priority may be revised, as necessary. The construction activities for each project are described on the following page.

Table 3: Construction Schedule and Estimated Number of Workers

	Duration (weeks)	Number of workers
PRIORITY PROJECT		
Lower Peters Canyon Trailheads and Restroom	25	46
Skylark Staging Area	15	30
Canyon View Staging Area	25	40
Big Red Rest Area	15	30
Historic Reservoir Viewing Areas	33	42

1.3.5.1 Priority of Projects

Lower Peters Canyon Trailheads and Restroom

Construction activities would include site demolition, grading, concrete foundation, planting, and signage and restroom building installation. The work area for the Lower Peters Canyon Trailheads and Restroom is estimated to encompass 0.35 acre total: 0.07 acre for the trailhead and 0.28 acre for the restroom. Construction of the restroom and entrances will take approximately 25 weeks and includes:

- 5 semi-truck loads of construction material delivered
- 3 semi-truck loads (42 cubic yards) of miscellaneous debris removed
- 2 semi-truck loads (28 cubic yards) of base rock
- 1 semi-truck load (14 cubic yards) of sand backfill
- 6 truckloads (60 cubic yards) of concrete added
- 1 crane to install prefabricated restroom

Skylark Place Staging Area

Construction activities would include site demolition, grading, concrete finish work, planting, irrigation, and signage installation. The work area for the Skylark Staging Area is estimated to encompass 1.3 acres. The parking area is expected to require 15 weeks to construct and includes:

- 10 semi-truck loads of construction material delivered
- 6 semi-truck loads (84 cubic yards) of miscellaneous debris removed
- 40 semi-truck loads (560 cubic yards) of decomposed granite added
- 3 truckloads (30 cubic yards) of concrete added

Canyon View Staging Area

Construction activities would include site demolition, grading, concrete finish work, asphalt concrete paving, planting, signage, overhead shade structures, park office and maintenance/storage yard, and amenities installation. The work area for the Canyon View Staging Area is estimated to encompass 2.9 acres.

The Canyon View Avenue Staging Area is expected to require 25 weeks to complete and includes:

- 25 semi-truck loads of construction material delivered
- 15 semi-truck loads (210 cubic yards total) of miscellaneous debris removed
- 95 semi-truck loads (1,330 cubic yards) of dirt removed
- 95 semi-truck loads (1,330 cubic yards) of decomposed granite added
- 10 truckloads (100 cubic yards total) of concrete added (includes paved loop trail)
- 1 crane to install prefabricated shade structure

Big Red Rest Area

Construction activities would include site demolition, grading, concrete finish work, planting, signage, overhead shade structures, and restroom building and amenities installation. The work area for the Big

Red Rest Area is estimated to encompass 0.27 acre. The restroom and shade structures will take approximately 25 weeks to construct and include:

- 15 semi-truck loads of construction material delivered
- 3 semi-truck loads (42 cubic yards) of miscellaneous debris removed
- 2 semi-truck loads (28 cubic yards) of base rock
- 1 semi-truck load (14 cubic yards) of sand backfill
- 2 truckloads (20 cubic yards) of concrete added
- 1 crane to install prefabricated restroom/shade structure

Historic Reservoir Viewing Areas

Construction activities would include site demolition, grading, concrete foundations, and carpentry. The work area for the Historic Reservoir Viewing Areas is estimated to encompass approximately 0.24 acre total, with 0.1 acre for the boardwalks. The work area for the Overlook Trail is estimated to encompass approximately 0.35 acre total. The boardwalk and overlook are expected to require up to 23 weeks and 10 weeks, respectively, to construct and include:

Historic Reservoir Viewing Areas

- 20 semi-truck loads of construction material delivered
- 5 semi-truck loads (70 cubic yards) of miscellaneous debris removed
- 5 truckloads (50 cubic yards) of concrete added
- 15,000 board feet added

Overlook Trail

- 10 semi-truck loads of construction material delivered
- 1 semi-truck load (14 cubic yards) of miscellaneous debris removed
- 8 truckloads (80 cubic yards) of concrete added

Trails

Trails are expected to be restored, realigned, and modified on an ongoing basis. Construction activities include minor grading, slope repair, installation of resource-friendly erosion control methods, and habitat restoration. The work area for the Park Trails is estimated to encompass 4.6 acres in total.

1.4 REQUIRED PERMITS AND APPROVALS

As required by the CEQA Guidelines, this section provides a list of the agencies that are expected to use this IS/MND in their decision making for and permit issuance and other approvals required to implement the Project.

1.4.1 Lead Agency Approval

The Final IS/MND IP 16-198 will be considered for adoption by the County of Orange Board of Supervisors, in conjunction with consideration of the proposed GDP and RMP.

1.4.2 Reviewing Agencies

Reviewing agencies include those agencies that do not have discretionary approval authority over the Project but may review the IS/MND for accuracy. Potential reviewing agencies include the following:

- California Office of Planning and Research
- California Office of Historic Preservation
- Native American Heritage Commission
- California Parks and Recreation
- Natural Communities Coalition

1.4.3 Responsible Agencies and Respective Discretionary Actions

The following discretionary actions may be requested from responsible agencies in order to implement the goals and policies outlined in the GDP and/or RMP in the future based on the projects implemented:

- California Department of Fish and Wildlife (CDFW): Streambed Alteration Agreement
- California Department of Transportation (Caltrans): Encroachment Permit
- Regional Water Quality Control Board: Section 401 Certification
- United States Army Corps of Engineers: 404 Permit
- USFWS: Section 7 Consultation

SECTION 2.0 – ENVIRONMENTAL DETERMINATION

Based on the analysis conducted in this Initial Study, the County of Orange, OC Parks, as the Lead Agency, has made the following determination:

I find that the proposed project COULD NOT have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.	☐
I find that although the initial study has identified potentially significant effects on the environment associated with the proposed project, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.	☒
I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.	☐
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document adopted/ certified pursuant to the State CEQA Guidelines and the County's adopted Local CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document adopted/ certified pursuant to State and County CEQA Guidelines. Minor additions and/or clarifications are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA §15164).	☐
I find that the proposed project Has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or substantial changes have occurred requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163.	☐

Joanna Chang

Signature

6/14/19

Date

Joanna Chang

Printed Name

SECTION 3.0 – ENVIRONMENTAL IMPACTS

3.1 ORGANIZATION OF ENVIRONMENTAL ANALYSIS

Sections 3.3.1 through 3.3.21 provide a discussion of the potential environmental impacts of the Project. The evaluation of environmental impacts follows the questions provided in the Checklist provided in the CEQA Guidelines.

3.2 TERMINOLOGY USED IN THIS ANALYSIS

For each question listed in the IS checklist, a determination of the level of significance of the impact is provided. Impacts are categorized in the following categories:

- **No Impact.** A designation of *no impact* is given when no adverse changes in the environment are expected.
- **Less Than Significant.** A *less than significant impact* would cause no substantial adverse change in the environment.
- **Less than Significant with Mitigation**. A *potentially significant (but mitigable) impact* would have a substantial adverse impact on the environment but could be reduced to a less-than-significant level with incorporation of mitigation measure(s).
- **Potentially Significant.** A *significant and unavoidable impact* would cause a substantial adverse effect on the environment and no feasible mitigation measures would be available to reduce the impact to a less-than-significant level.

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the Lead Agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant.

"Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

"Less Than Significant With Mitigation" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." Mitigation measures are identified and explain how they reduce the effect to a less than significant level (mitigation measures may be cross-referenced).

Earlier analyses may be used where, pursuant to the Program EIR or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. (Section 15063[c] [3][D]. In this case, a brief discussion should identify the following:

a) Earlier analyses used where they are available for review.

b) Which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and whether such effects were addressed by mitigation measures based on the earlier analysis.

c) The mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project for effects that are "Less than Significant with Mitigation Measures Incorporated.

References and citations have been incorporated into the checklist references to identify information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document, where appropriate, include a reference to the page or pages where the statement is substantiated.

Source listings and other sources used or individuals contacted are cited in the discussion.

The explanation of each issue identifies:

a) The significance criteria or threshold, if any, used to evaluate each question.

b) The mitigation measure identified, if any, to reduce the impact to less than significant.

3.3.1 Aesthetics

PCRP is a 340-acre regional park located within the cities of Tustin and Orange and within County of Orange unincorporated land. The park is bordered by Canyon View Avenue to the north, Jamboree Road to the east, Peters Canyon Road to the south, and Skylark Place and Newport Boulevard and residential units to the west. PCRP contains traditional park elements. Activities on site include hiking, running, mountain biking, horseback riding, dog walking, picnicking, and bird watching. Hours of access to the park are generally 7:00 a.m. to sunset, depending on the season and holidays.

The nearest scenic highway to the park is State Route (SR-) 91; however, only portions of SR-91 are an Officially Designated Scenic Highway and Eligible State Scenic Highway. According to the Department of Transportation California Scenic Highway, the nearest section of scenic highway is 6 miles north of the Project area (Caltrans 2016).

According to the City of Tustin General Plan, the Peters Canyon ridgeline in East Tustin is considered a prominent visual feature and is part of the City's General Plan Special Management Areas that should be

protected. The East Ridge View Trail provides a panoramic view of Peters Canyon and surrounding areas (City of Tustin 2013).

Under the Orange County General Plan - Scenic Highway Plan, Newport Avenue and Santiago Canyon Road are listed as part of a Viewscape Corridor. The surrounding areas are designated as part of the Cleveland National Forest (County of Orange 2005a).

Although PCRP is not specifically identified as a scenic resource, the City of Orange General Plan does identify grassy valleys, rugged hillsides, rock outcroppings, and winding canyons as scenic resources that should be protected while still allowing development to occur (City of Orange 2010); PCRP would fit this classification of scenic resource.

The Project area is visible from the nearby roads, including Canyon View Avenue and Skylark Place, as well as from the residential uses that border the Peters Canyon Regional Park.

a)	Would the project have a substantial adverse effect on a scenic vista?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. The Project area is an existing park that is used for recreational purposes and includes a multi-use trail (hiking, horseback riding and mountain biking) and picnic facilities. The GDP includes the addition of two design features to provide opportunities for visitors to view the historic reservoir. These additions consist of constructing two design features, a boardwalk that would traverse the reservoir and a pedestrian bridge that would connect the Canyon View Avenue Staging Area paved trail to the Lakeview Trail (proposed to be renamed North Loop Trail). The proposed Project would preserve the natural character of the park and would enhance views and trails throughout the park as identified in the GDP. The proposed Project also includes specific goals, including long-term management plans that are provided in the RMP that would provide views within the park to preserve and enhance the natural resources and buffer views into existing residential neighborhoods and streets. The RMP would also detail maintaining the historic reservoir as a natural aesthetic park feature and preserve the reservoir during wet and dry conditions. The proposed Project provides a positive impact to the site; a less than significant impact would occur.

b)	Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

b) No Impact. As stated above, the nearest scenic highway to the park is SR-91, approximately 6 miles north of the park. No rock outcroppings or historic buildings occur within the Project area. The GDP would improve views within the park through providing viewing areas, new trails, and a resource management plan for the park. New signage, site furniture, on site structures, and gateways would be designed to be aesthetically pleasing. The resulting views and scenery within the Project area would be similar to or better than existing conditions. The RMP would be

implemented to ensure long-term maintenance and preservation of the natural aesthetics of PCRP. Since the Project is not located within a state scenic highway, no impact to scenic resources within a state scenic highways would occur.

c)	In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. The proposed Project would not degrade the existing visual character or quality of public views of the site or its surroundings. The Project would retain Peters Canyon's visual character as a park with existing active and passive recreation areas. The GDP would improve views within the park through providing viewing areas, new trails, and a resource management plan for the park. New signage, site furniture, on-site structures, and gateways would be designed to be aesthetically pleasing.

During construction, the presence of construction equipment and activities would temporarily degrade public views. However, to minimize the impact of construction on the visual character of the park, storage of construction equipment and materials would occur in areas that would avoid blocking viewsheds to the extent practicable. After construction, the resulting views and scenery within the Project area would be similar or better than existing conditions. The RMP would provide long-term management plans for Peters Canyon to ensure park maintenance and preservation of natural features. Because construction is temporary, impacts would be less than significant.

d)	Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) Less than Significant Impact. The proposed Project consists of park enhancements and improvements along with new construction of restrooms and boardwalks. The new restrooms that will be provided at Canyon View Staging Area, Lower Peters Canyon Reservoir Entry/Trailhead, and Big Red Rest Area will each include three exterior lights with 42-watt fluorescent bulbs. This type of exterior lighting is similar to the lighting at the existing restroom adjacent to the ranger building. As noted in Sections 7.5 and 7.6 of the GDP, the security lighting at the new restrooms and park office would be required to match the existing restroom lighting which includes three 42-watt fluorescent bulbs with black housing and a clear diffuser. The housing for the lighting will keep the lighting down-shielded and the clear diffuser will minimize any potential impacts associated with new lighting in the PCRP. The lighting being provided would

automatically turn on at sunset and would turn off at approximately 7:00 a.m. in order to provide security lighting at this location. Other than the lighting at the restroom buildings and park office, no additional permanent lighting will be provided. Therefore, the proposed Project would not adversely affect day or nighttime views.

The improvements proposed in the GDP would be implemented over time based on priority and availability of fund (OC Parks and/or grant funding). Improvement projects would be budgeted in both the OC Parks Five-year Strategic Financial Plan and the Capital Improvement Projects budgets that are approved by the Board of Supervisors on an annual basis. Table 3 provides the estimated duration of the construction activities for each priority project.

Potential impacts regarding light or glare during construction may include utilization of additional light sources during installations, relocation of existing fixed sources of light in the parking lots, headlights from construction vehicles, and intermittent light redirection. Potential light impacts would be temporary in nature, as they may occur during the construction period. Due to the fact that construction is temporary, impacts would be less than significant.

3.3.2 Agricultural and Forestry Resources

The forested area near the park is designated by the California Department of Conservation (DOC 2016) as part of the Cleveland National Forest. The Project area is designated as "Other Land," and surrounding areas are designated as Urban and Built-Up Land (DOC 2016). The park itself is not used as forest lands or agricultural lands (DOC 2016).

As noted in the Orange County General Plan, "the Open Space (5) category indicates the current and near-term use of the land, most of which is zoned agricultural. It is not necessarily an indication of a long-term commitment specific uses, except where one of the three overlay categories applies" (County of Orange 2005b, page III-20). As noted above, the Project area does not contain any land used for agricultural uses.

a)	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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

a) No Impact. PCRP is not located on farmland. The proposed Project would have no impact on farmland.

b)	Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

b) No Impact. PCRP is not zoned for agricultural use. The proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

c)	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))?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

c) No Impact. PCRP is an existing park. The proposed Project would not conflict with existing zoning or cause rezoning of forest land, timberland, or timberland zoned Timberland Production. No impact would occur.

d)	Would the project result in the loss of forest land or conversion of forest land to non-forest use?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

d) No Impact. PCRP is an existing park. The proposed Project would not result in the loss of forest land or the conversion of forest land to non-forest use. No impact would occur.

e)	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 forest land to non-forest use?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

e) No Impact. PCRP is an existing park. The proposed Project would not involve any conversions of farmland to non-agricultural use or conversion of forest land to non-forest use.

3.3.3 Air Quality

This section describes the existing air quality setting and potential effects from project implementation on the site and its surrounding area. Construction air quality modeling was performed through use of the California Emissions Estimator Model (CalEEMod) Version 2016.3.1. The model output is provided in Appendix A.

3.3.3.1 Environmental Setting

The Project area is located in the cities of Orange and Tustin and within unincorporated areas of the County of Orange. The Project area is located within the South Coast Air Basin (Air Basin), and air quality regulation is administered by the South Coast Air Quality Management District (SCAQMD). The SCAQMD implements the programs and regulations required by the federal and State Clean Air Acts.

3.3.3.2 Atmospheric Setting

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographical features. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with physical features of the landscape to determine their movement and dispersal, and, consequently, their effect on air quality. The combination of topography and inversion layers generally prevents dispersion of air pollutants in the Air Basin.

The climate of the Air Basin lies in the semi-permanent high-pressure zone of the eastern Pacific, which results in a mild climate, tempered by cool sea breezes. Although the Air Basin has a semiarid climate, the air near the surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the basin by offshore winds, the ocean effect is dominant. Periods of heavy fog are frequent; and low stratus clouds, often referred to as "high fog," are a characteristic climate feature. Average temperatures for the Santa Ana Fire Station[1], which is the nearest monitored location, range from an average low of 43 degrees Fahrenheit (°F) in January to an average high of 85 °F in August. Rainfall averages approximately 14 inches a year, with almost all annual rainfall coming from the fringes of mid-latitude storms from late November to early April and summers being almost completely dry.

Winds are an important parameter in characterizing the air quality environment of a project area because they determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in the Air Basin are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean. These winds are usually strongest in the dry summer months. Nighttime winds in the Air Basin result mainly from the drainage of cool air off the mountains to the east, and they occur more often during the winter months and are usually lighter than the daytime winds. Between the periods of dominant airflow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs is one of the critical determinants of air quality conditions on any given day.

During the winter and fall months, surface high-pressure systems north of the Air Basin, combined with other meteorological conditions, can result in very strong winds from the northeast called "Santa Ana Winds." These winds normally have durations of a few days before predominant meteorological conditions are reestablished. The highest wind speed typically occurs during the afternoon due to daytime thermal convection caused by surface heating. This convection brings about a downward transfer of momentum from stronger winds aloft. It is not uncommon to have sustained winds of 60 miles per hour with higher gusts during a Santa Ana Wind.

3.3.3.3 Regulatory Setting

The Project area lies within the Air Basin, which is managed by the SCAQMD. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead. The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

[1] Data from *http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7888*. Accessed June 2017.

Areas are classified under the federal Clean Air Act as either "attainment" or "nonattainment" areas for each criteria pollutant, based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The Air Basin has been designated by the federal Environmental Protection Agency (EPA) as a nonattainment area for O_3 and $PM_{2.5}$. Currently, the Air Basin is in attainment with the NAAQS for CO, SO_2, NO_2, and PM_{10}. In addition, the Orange County portion of the Air Basin is in attainment for lead.

The EPA has designated the Air Basin as extreme nonattainment for the 8-hour average ozone standard. In 2015, the EPA strengthened its 8-hour "primary" and "secondary" ozone standards to 0.070 parts per million (ppm). The previous standard, set in 2008, was 0.075 ppm. The SCAQMD, the agency principally responsible for comprehensive air pollution control in the Air Basin, adopted the 2016 Air Quality Management Plan (AQMP) in March 2016 that provides measures to reduce 8-hour ozone levels to below the federal standard by 2037.

Additionally, the EPA has designated the Air Basin as nonattainment for $PM_{2.5}$. In 1997, the EPA established standards for $PM_{2.5}$ (particles less than 2.5 micrometers) which were not implemented until March 2002. $PM_{2.5}$ is a subset of the PM_{10} emissions whose standards were developed to complement the PM_{10} standards that cover a full range of inhalable particulate matter. For the PM_{10} health standards, the annual PM_{10} standard was revoked by the EPA on October 17, 2006; and the 24-hour average PM_{10} attainment status was redesignated to attainment (maintenance) on July 26, 2013.

The 2012 AQMP provides measures to reduce $PM_{2.5}$ emissions to within the federal standard by 2025. On December 14, 2012, the EPA revised the primary annual $PM_{2.5}$ NAAQS from 15 micrograms per cubic meter ($\mu g/m^3$) to 12 $\mu g/m^3$. On August 3, 2015, the EPA announced the Clean Power Plan, which provides emissions guidelines for states to follow in developing plans to reduce greenhouse gas (GHG) emissions from existing fuel-fired power plants. On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan due to a legal challenge from 29 states. The Clean Power Plan was replaced with a proposed Affordable Clean Energy rule, which would give the authority for making greenhouse gas emissions reductions plans to individual states.

The Air Basin has been designated by CARB as a nonattainment area for ozone, NO_2, PM_{10}, and $PM_{2.5}$. Currently, the Air Basin is in attainment with the State ambient air quality standards for CO, SO_2, and sulfates and is unclassified for visibility-reducing particles and hydrogen sulfide. The adopted AQMPs provide measures to meet the State standards for ozone, NO_2, PM_{10}, and $PM_{2.5}$. Table 4 presents the designations and classifications applicable to the Project area.

Table 4: Designations/Classifications for the Project Area

Pollutant	Averaging Time Standard	National Standards Attainment Date[1]	California Standards[2]
1979 1-Hour Ozone (O_3)[3]	1-Hour (0.12 ppm)	Nonattainment (Extreme) 11/15/2010 (not attained)	Nonattainment
1997 8-Hour Ozone (O_3)[4]	8-Hour (0.08 ppm)	Nonattainment (Extreme) 6/15/2024	
2008 8-Hour Ozone (O_3)	8-Hour (0.075 ppm)	Nonattainment (Extreme) 12/31/2032	
2015	8-Hour	Designation Pending	

Table 4: Designations/Classifications for the Project Area

Pollutant	Averaging Time Standard	National Standards Attainment Date[1]	California Standards[2]
8-Hour Ozone (O_3)	(0.070 ppm)	~2037	
Carbon Monoxide (CO)	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance) 6/11/2007 (attained)	Maintenance
Nitrogen Dioxide (NO_2)[5]	1-Hour (100 ppb)	Unclassifiable/Attainment Attained	Attainment
	Annual (0.053 ppm)	Attainment (Maintenance) 9/22/1998	
Sulfur Dioxide (SO_2)[6]	1-Hour (75 ppb)	Designation Pending/ Pending	Attainment
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/Attainment 3/19/1979 (attained)	
Particulate Matter (PM_{10})	24-Hour (150 µg/m^3)	Attainment (Maintenance) 7/26/2013	Nonattainment
Particulate Matter ($PM_{2.5}$)	24-Hour (35 µg/m^3)	Nonattainment (Serious) 12/14/2014	Nonattainment
	1997 Annual (15.0 µg/m^3)	Nonattainment 4/5/2015	
	Annual (12.0 µg/m^3)	Nonattainment 12/31/2025	
Lead (Pb)	3-Months Rolling (0.15 µg/m^3)	Nonattainment (Partial)[7] 12/31/2015	Nonattainment

1 Obtained from Final 2012 AQMP, SCAQMD, 2013 and SCAQMD, 2016. A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.
2 Obtained from http://www.arb.ca.gov/desig/adm/adm.htm.
3 1-hour O_3 standard (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard based on 2008-2010 data has some continuing obligations under the former standard.
4 1997 8-hour O_3 standard (0.08 ppm) was reduced (0.075 ppm) in 2008; the 1997 O_3 standard and most related implementation rules remain in place until the 1997 standard is revoked by U.S. EPA.
5 New NO_2 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO_2 standard retained.
6 The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard. Area designations are expected in 2012, with Basin designated Unclassifiable/Attainment
7 Partial Nonattainment designation – Los Angeles County portion of Basin only.

Monitored Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Air Basin provided in the Final 2016 AQMP, March 2017, indicate that, collectively, mobile sources account for 33 percent of the volatile organic compounds (VOC), 88 percent of the NO_x emissions, and 35 percent of directly emitted $PM_{2.5}$, with another 10 percent of $PM_{2.5}$ from road dust. However, the mobile source regulations currently in place are anticipated to reduce the share of emissions currently produced by mobile sources; and, by 2031, mobile source emissions are anticipated to create 14 percent

of VOC emissions, 30 percent of NO_x emissions, and 23 percent of $PM_{2.5}$ emissions with another 14 percent of $PM_{2.5}$ from road dust.

The SCAQMD has divided the Air Basin into 38 air monitoring areas with a designated ambient air monitoring station representative of each area. The Project area is located in Air Monitoring Area 19, which covers most of Saddleback Valley. The nearest air monitoring station to the Project area is the Anaheim-Pampas Lane Monitoring Station (Anaheim Station), which is located approximately 11 miles northwest of the Project area at 1630 West Pampas Lane, Anaheim. Since historical concentrations of carbon monoxide were found to be well below State and federal limits throughout the Air Basin, SCAQMD discontinued monitoring of carbon monoxide levels on March 31, 2013. It should be noted that due to the air monitoring station's distance from the Project area, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy local air quality conditions at the Project area. Table 5 presents the composite of gaseous pollutants of the ambient air quality monitored from 2014 through 2016.

Table 5: Ambient Air Quality Monitoring Summary

Air Pollutant[1]	2014	2015	2016
Ozone (O_3)			
Max 1 Hour (ppm)	**0.111**	**0.100**	**0.103**
Days > CAAQS (0.09 ppm)	**2**	**1**	**2**
Max 8 Hour (ppm)	**0.082**	**0.081**	**0.075**
Days > NAAQS (0.070 ppm[1])	**6**	**1**	**4**
Days > CAAQS (0.070 ppm)	**6**	**1**	**4**
Nitrogen Dioxide (NO_2)			
Max 1 Hour (ppb)	75.8	59.1	64.3
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Particulate Matter (PM_{10})			
Max Daily California Measurement	85.0	59.0	74.0
Days > NAAQS (150 µg/m^3)	0	0	0
Days > CAAQS (50 µg/m^3)	**2**	**2**	ND
State Average (20 µg/m^3)	26.7	25.3	ND
Particulate Matter ($PM_{2.5}$)[1]			
Max Daily National Measurement	45.0	45.8	44.4
Days > NAAQS (35 µg/m^3)	**4**	**3**	**1**
National Average (12 µg/m^3)	ND	ND	9.4
State Average (12 µg/m^3)	16.1	14.8	9.4

Abbreviations:
> = exceed ppm = parts per million ppb = parts per billion µg/m^3 = micrograms per cubic meter
CAAQS = California Ambient Air Quality Standard NAAQS = National Ambient Air Quality
ND = Insufficient or No Data **Bold** = exceedance
[1] Measurement taken from Anaheim Station
Source: http://www.arb.ca.gov/adam/

a)	Would the project conflict with or obstruct implementation of applicable air quality plan?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. The regional plans that apply to the proposed Project include the SCAQMD 2012 AQMP as well as the SCAQMD 2016 AQMP. Therefore, this section discusses any potential inconsistencies of the proposed Project with the AQMPs.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed Project would interfere with the region's ability to comply with federal and State air quality standards. If the decision-makers determine that the proposed Project is inconsistent, the Lead Agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP

(2) Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout

Both of these criteria are evaluated in the following sections.

Criterion 1: Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in the Air Quality Analysis (Appendix A), it was determined that short-term construction impacts and long-term operations impacts would not result in significant impacts based on the SCAQMD regional, local, and toxic air contaminant thresholds of significance. Additional analysis is provided in Section 3.3.3 b) below, which outlines the Project's emissions for both construction and operation in comparison to established thresholds.

Therefore, the proposed project is not expected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

Criterion 2: Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The Regional Comprehensive Plan and Guide consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and State requirements placed on the Southern California Association of Governments (SCAG). Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the General Plans from the City of Orange, City of Tustin, and County of Orange define the assumptions that are represented in the AQMP.

The proposed Project consists of improvements to existing trails and parking areas and development of a new park office, restrooms, rest areas, a boardwalk, pedestrian bridge and overlook, and additional parking facilities. The proposed Project would also include development of approximately 2 miles of new trails and approximately 1 mile of realigned trails within the 340-acre regional park site. The project area is designated as Open Space Park in all of the applicable General Plans and is zoned Recreation Open-Space. The proposed Project is consistent with current uses and conditions at the Park and, therefore, the proposed Project is not anticipated to exceed the AQMP assumptions for the Project area and is found to be consistent with the AQMP for the second criterion.

Based on the discussion above, the proposed Project would not result in an inconsistency with the SCAQMD AQMP. Accordingly, the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan.

b)	Would the project 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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. As shown above in Table 5, the Project area is designated as a federal and/or State nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. To estimate if a proposed project may adversely affect the air quality in the region, the SCAQMD has prepared CEQA Air Quality Handbook (SCAQMD 1993) to provide guidance to those who analyze the air quality impacts of proposed projects. The SCAQMD CEQA Handbook states that any project in the Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes of this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table 6.

Table 6: Regional Thresholds of Significance

	Pollutant Emissions (Pounds/Day)						
	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$	Lead
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: SCAQMD, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

Project-related construction air emissions may have the potential to exceed the State and federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. In order to assess local air quality impacts, the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the Project-related air emissions in the project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO_2, CO, PM_{10}, and $PM_{2.5}$.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the Project area and distance to the nearest sensitive receptors. The proposed Project would disturb approximately 11 acres within the larger Peters Canyon Regional Park site. The 5 acre project area provided in the Look-Up Tables was utilized for this analysis. This provides for a conservative analysis, as it assumes all construction activity occurring within a smaller (5 acre) area than would occur for the proposed Project (11 acres); therefore, the analysis assumes a greater impact than would be expected to occur. As detailed above, the Project area is located in Air Monitoring Area 19, which covers Saddleback Valley. The nearest existing sensitive receptors are single-family homes located immediately adjacent to the Project area, with the nearest home approximately 150 feet to the Park boundary. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. Table 7 below shows the LSTs for NO_2, PM_{10}, and $PM_{2.5}$ for both construction and operational activities.

Table 7: Local Thresholds of Significance

Activity	Allowable Emissions (pounds/Day) [1]			
	NOx	CO	PM_{10}	$PM_{2.5}$
Construction	197	1,804	12	8
Operation	197	1,804	3	2

[1] The nearest existing sensitive receptors are single-family homes located adjacent to the project area. According to SCAQMD Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds.

Source: Calculated from SCAQMD's Mass Rate Look-up Tables for 5 acres in Air Monitoring Area 19 found at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2

Construction Emissions

Construction of the proposed Project would create air emissions primarily from equipment exhaust and fugitive dust. The air emissions from the proposed Project were determined through use of the CalEEMod model (see Appendix A). Construction activities for the proposed Project

would take place according to a priority list of projects as funding becomes available. The construction projects that have been analyzed include: 1) Lower Peters Canyon Trailhead and Restroom; 2) Skylark Place Staging Area; 3) Canyon View Staging Area; 4) Big Red Rest Area; and 5) Historic Reservoir Viewing Areas, Overlook Trail and Other Trails. This analysis has anticipated construction of Lowers Peter Canyon Trailhead in 2018, Skylark Place Staging Area and Canyon View Staging Area in 2019 and all other construction activities concentrated in 2020, which provides for a worst-case construction emissions analysis.

Table 8 shows the estimated worst-case summer or winter daily emissions that would be predicted from the proposed Project. It should also be noted that the applicant has detailed the equipment anticipated to be used during construction activities; however, in order to provide a worst-case emissions analysis, this analysis utilized the provided equipment in addition to the default equipment in the CalEEMod model.

Table 8: Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions in pounds/day					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Lower Peters Canyon Trailheads and Restroom						
Demolition/Site Preparation	1.08	13.22	7.37	0.02	0.94	0.59
Grading	0.64	7.21	4.78	0.01	0.82	0.54
Building Construction	0.99	10.11	7.14	0.01	0.70	0.59
Paving	1.06	10.24	8.32	0.02	0.80	0.56
Architectural Coatings	28.57	2.01	1.89	0.00	0.16	0.15
Skylark Place Staging Area						
Demolition/Site Preparation	0.93	10.35	6.79	0.01	2.96	1.77
Grading	1.05	11.66	7.58	0.01	2.65	1.54
Paving	0.99	9.89	9.55	0.01	0.71	0.54
Canyon View Staging Area						
Demolition/Site Preparation	0.88	10.22	6.32	0.01	1.23	0.52
Grading	1.52	21.91	9.50	0.04	4.35	2.39
Building Construction	1.32	13.3	9.23	0.02	1.33	0.75
Paving	1.16	12.64	11.03	0.02	0.87	0.63
Architectural Coatings	58.87	1.87	2.23	0.00	0.25	0.16
Big Red Rest Area						
Demolition/Site Preparation	0.85	9.38	6.65	0.01	0.76	0.44
Grading	0.85	9.35	6.64	0.01	0.84	0.58
Building Construction	1.04	11.12	8.07	0.01	0.66	0.56
Paving	0.80	7.81	7.82	0.01	0.56	0.42
Architectural Coatings	5.69	1.68	1.86	0.00	0.12	0.11
Historic Reservoir Viewing Areas, Overlook Trail and Other Trails						
Demolition/Site Preparation	1.46	16.02	10.76	0.02	7.94	4.57
Grading	1.44	15.79	10.60	0.02	3.40	1.99

Building Construction	1.13	11.27	10.92	0.01	0.85	0.68
Paving	0.82	9.42	8.23	0.02	0.71	0.47
Architectural Coatings	3.48	1.69	1.90	0.00	0.13	0.12
SCAQMD Regional Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceed?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod Version 2016.3.1.

As shown in Table 8, short-term emissions would not exceed SCAQMD regional criteria pollutant thresholds. In addition, construction emissions would be short-term, limited only to the period when construction activity is taking place. As such, construction-related regional emissions would be less than significant for the proposed Project.

The proposed Project's construction-related air emissions from fugitive dust and on-site diesel emissions may have the potential to exceed the State and federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. The nearest sensitive receptors to the proposed Project's improvements are single-family homes located adjacent to the Project area, with the nearest home approximately 150 feet to the Park boundary.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the methodology described in LST Methodology, prepared by SCAQMD, revised July 2008. In order to determine if any of the analyzed pollutants require a detailed analysis of the local air quality impacts, construction was screened using the LST Look-Up Tables.

Table 9, below, shows the on-site emissions from the CalEEMod model for construction and the calculated emissions thresholds.

Table 9: Construction-Related Local Criteria Pollutant Emissions

Activity	Onsite Pollutant Emissions in pounds/day			
	NOx	CO	PM_{10}	$PM_{2.5}$
Lower Peters Canyon Trailheads and Restroom				
Demolition/Site Preparation	10.58	6.41	0.76	0.53
Grading	5.51	4.05	0.65	0.49
Building Construction	9.85	6.84	0.61	0.57
Paving	8.74	7.22	0.51	0.47
Architectural Coatings	2.01	1.85	0.15	0.15
Skylark Place Staging Area				
Demolition/Site Preparation	9.53	6.29	2.82	1.73
Grading	10.35	6.90	2.46	1.49
Paving	9.17	8.90	0.52	0.48
Canyon View Staging Area				
Demolition/Site Preparation	8.92	5.71	1.06	0.47
Grading	15.50	7.55	3.84	2.24

Table 9: Construction-Related Local Criteria Pollutant Emissions

Activity	Onsite Pollutant Emissions in pounds/day			
	NOx	CO	PM_{10}	$PM_{2.5}$
Building Construction	10.76	6.79	0.59	0.54
Paving	10.33	9.94	0.58	0.54
Architectural Coatings	1.84	1.84	0.13	0.13
Big Red Rest Area				
Demolition/Site Preparation	8.62	6.19	0.62	0.40
Grading	8.62	6.19	0.71	0.54
Building Construction	10.90	7.86	0.59	0.54
Paving	7.36	7.38	0.42	0.38
Architectural Coatings	1.68	1.83	0.11	0.11
Historic Reservoir Viewing Areas, Overlook Trail and Other Trails				
Demolition/Site Preparation	15.13	10.11	7.74	4.51
Grading	15.13	10.11	3.25	1.95
Building Construction	10.21	10.38	0.69	0.63
Paving	6.68	7.15	0.41	0.38
Architectural Coatings	1.68	1.83	0.11	0.11
SCAQMD Threshold for 25 meters (82 feet)[1]	*197*	*1,804*	*12*	*8*
Exceed?	**No**	**No**	**No**	**No**

[1] The nearest sensitive receptors are single-family homes located adjacent to the Project area. According to SCAQMD Methodology, any receptor located closer than 25 meters shall be based on the 25-meter thresholds.

Source: CalEEMod Version 2016.3.1 and SCAQMD's Mass Rate Look-Up Tables for 5 acres in Air Monitoring Area 19.

The data provided in Table 9 shows that construction-related emissions would not exceed SCAQMD's local air concentration thresholds. In addition, construction emissions would be short-term, limited only to the period when construction activity is taking place. As such, construction-related local air concentrations would be less than significant for the proposed Project.

Operational Emissions

The proposed Project would consist of the development of improved trails and trailheads; improved parking areas; a new park office and maintenance facility; enhanced signage; and new restrooms, rest areas, boardwalks, and dam overlook on approximately 11 acres of PCRP. The proposed Project would generate air emissions from vehicular emissions, area sources, and energy usage. The air emissions associated with the proposed Project have been calculated through use of the CalEEMod model and are based on the year 2020, which is the anticipated opening year of the proposed Project and represents a worst-case scenario. The proposed Project is not anticipated to create any additional vehicle trips when compared to vehicle trips to the existing park facilities. However, for the purposes of this analysis, the default vehicle trips for a city park were used in the CalEEMod model to provide a worst-case scenario. Table 10 shows the estimated worst-case daily emissions that would be predicted from operation of the proposed Project.

Table 10: Operations-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions in pounds/day					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Lower Peters Canyon Trailheads and Restroom						
Area Sources[1]	0.34	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	0.01	0.05	0.16	0.00	0.05	0.01
Lower Peters Canyon Trailheads and Restroom Total	**0.35**	**0.05**	**0.16**	**0.00**	**0.05**	**0.01**
Skylark Place Staging Area						
Area Sources[1]	0.00	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	0.04	0.17	0.56	0.00	0.18	0.05
Skylark Place Staging Area Total	**0.04**	**0.17**	**0.56**	**0.00**	**0.18**	**0.05**
Canyon View Staging Area						
Area Sources[1]	2.82	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	0.11	0.47	1.45	0.00	0.41	0.11
Canyon View Staging Area Total	**2.93**	**0.47**	**1.45**	**0.00**	**0.41**	**0.11**
Big Red Rest Area						
Area Sources[1]	0.26	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	0.01	0.04	0.14	0.00	0.04	0.01
Big Red Rest Area Total	**0.27**	**0.04**	**0.14**	**0.00**	**0.04**	**0.01**
Historic Reservoir Viewing Areas, Overlook Trail and Other Trails						
Area Sources[1]	0.19	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	0.21	0.84	2.60	0.01	0.73	0.20
Historic Reservoir Viewing Areas, Overlook Trail and Other Trails Total	**0.40**	**0.84**	**2.60**	**0.01**	**0.73**	**0.20**
Total Project Emissions	**4.00**	**1.57**	**4.90**	**0.01**	**1.41**	**0.39**
SCAQMD Regional Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
[1] Area sources consist of emissions from consumer products, architectural coatings, and landscape equipment.
[2] Energy usage consists of emissions from natural gas usage (no natural gas appliances are anticipated to be installed as part of the proposed Project).
[3] Mobile sources consist of emissions from vehicles and road dust.
Source: CalEEMod Version 2016.3.1.

As shown in Table 10, operations-related emissions would not exceed SCAQMD regional thresholds. As such, operations-related regional emissions would be less than significant for the proposed Project.

The proposed Project's operations related to on site emissions may have the potential to exceed the State and federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. The nearest sensitive receptors are residential homes located adjacent to the Project area.

The local air quality emissions from operations were analyzed in the same manner detailed above for construction emissions. Table 11 shows the on site emissions from the CalEEMod model for construction and the calculated emissions thresholds.

Table 11: Operations-Related Local Criteria Pollutant Emissions

Activity	On-Site Pollutant Emissions in pounds/day			
	NOx	CO	PM_{10}	$PM_{2.5}$
Lower Peters Canyon Trailheads and Restroom Total Emissions	0.05	0.16	0.05	0.01
Skylark Place Staging Area Total Emissions	0.17	0.56	0.18	0.05
Canyon View Staging Area Total Emissions	0.47	1.45	0.41	0.11
Big Red Rest Area Total Emissions	0.04	0.14	0.04	0.01
Historic Reservoir Viewing Areas, Overlook Trail and Other Trails Total Emissions	0.84	2.60	0.73	0.20
Total Project Emissions	**1.57**	**4.90**	**1.41**	**0.39**
SCAQMD Threshold for 25 meters (82 feet)[2]	197	1,804	3	2
Exceed Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] The nearest sensitive receptors are single-family homes located adjacent to the Project area. According to SCAQMD Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25 meter threshold.
Source: CalEEMod Version 2016.3.1.

The data provided in Table 11 shows that none of criteria pollutants would exceed the SCAQMD local emissions thresholds at the nearest sensitive receptors. As such, operations-related local emissions would be less than significant for the proposed Project.

Cumulatively Considerable Emissions

Cumulative projects include local development as well as general growth within the Air Basin; however, the greatest source of emissions in the Air Basin is from mobile sources. Therefore, from air quality standpoint, the cumulative analysis would extend beyond any local projects and, when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the proposed Project's air quality must be generic by nature. The Air Basin that the Project area within is out of attainment for O_3, PM_{10}, and $PM_{2.5}$.

As shown above, short-term construction and long-term operational emissions from the proposed Project would not exceed the SCAQMD regional thresholds of significance for criteria pollutants. Accordingly, any net increases of nonattainment criteria pollutants from the Project would not be cumulatively considerable, and cumulative impacts to air quality would be less than significant for the proposed Project.

c)	Would the project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. The nearest sensitive receptors are residential homes located adjacent to the Project area. As discussed above in response (b), the local concentrations of emissions have been calculated for construction and operational activities. The analysis above found that less than significant criteria pollutant concentrations would occur during construction and operation of the proposed Project. Therefore, implementation of the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

e)	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) Less than Significant Impact. Any diesel equipment used during construction of the proposed Project would consist of mobile equipment that would be changing locations, allowing the odors to disperse rapidly and not impact any nearby receptors. Should diesel equipment be required during maintenance at the Project area, it would also change locations, allowing the odors to disperse rapidly and not impact any nearby receptors. Construction and operation at the project area would not result in any other emissions that could cause odors. Therefore, construction and operation of the proposed Project would not result in additional emissions or odors affecting a substantial number of people, and impacts would be less than significant.

3.3.4 Biological Resources

Michael Baker International (MBI) reviewed literature relevant to PCRP, including documentation of previous special-status species surveys and other relevant studies, and environmental setting information

prior to conducting field work. MBI conducted general, reconnaissance-level biological resources surveys on March 25, 29, 30, and 31, 2016 (MBI 2016). Of the 31 special status plant species with a potential to occur on the Project area, four of the special status plant species were observed during the reconnaissance survey. None of the observed species are State or federal listed threatened or endangered or as a California Species of Special Concern. The observed special status plant species were all California Rare Plant Rank (CRPR) 4 or Watch List species. Of the 30 special status wildlife species with a potential to occur in the Project area, 20 species were observed during the reconnaissance and focused surveys.

In November 2017, the Canyon Fire II burned the northern portion of the park surrounding the Upper Peters Canyon Reservoir and Dam. The fire entered the park at the corner of Jamboree Road and Canyon View Avenue. It then spread in a southwesterly direction, fed by the wind. The burn area extends from Canyon View Avenue in the north, to the housing development and Brentwood Drive in the west, Jamboree Road in the east and approximately 33 percent of the northern portion of the park toward the south. The entirety of this burn area within PCRP was surveyed. A post-fire update survey was conducted on April 23, 2018, to document the results of a biological resources reconnaissance following the Canyon Fire II. A total of 182.82 acres were surveyed to document post-fire conditions. The Canyon Fire II had a significant impact on the vegetation within the PCRP. Large areas of Diegan CSS, southern willow scrub, cottonwood-willow riparian forest, tamarisk scrub, valley freshwater marsh, mule fat scrub, non-native grassland, and disturbed areas were impacted by the fire. Although many of these communities were heavily impacted by the fire, most of these communities have begun to naturally return to their pre-fire conditions. The area most significantly impacted by the fire is the southern cottonwood-willow riparian forest at the northeast end of the park. This area was previously a dense stand of mature riparian forest that provided valuable habitat to many riparian species, such as least Bell's vireo. The majority of the mature riparian trees and understory in this area was entirely destroyed by the fire. Although non-native weeds have begun to emerge in this area, OC Parks plans on restoring this area to southern cottonwood-willow riparian forest. In addition, OC Parks has already implemented CSS restoration work immediately adjacent to this area.

A focused presence/absence survey for cactus wren (*Campylorhynchus brunneicapillus*; CACW) was conducted on April 13 and May 9 and 25, 2016. Two (2) CACW territories were identified and mapped within the survey area: one south of Gnatcatcher Trail and west of the East Ridge View Trail and the other west of the Upper Peters Canyon Reservoir and south of the southern portion of Cactus Point Trail, both pairs nesting in coastal cholla (MBI 2016). A focused presence/absence survey for least Bell's vireo (*Vireo bellii pusillus*; LBVI) on April 12 and 25 and May 3, 13, 20, and 24, 2016, following the USFWS Least Bell's Vireo Survey Guidelines (USFWS 2001), but modified with a USFWS-approved reduction in total site visits (4.5 total of 8 recommended) (MBI 2016). A total of fourteen (14) potential LBVI territories were identified within and surrounding PCRP. A protocol-level, focused coastal California gnatcatcher survey following the USFWS Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines was conducted in April 2016 through August 1, 2016, by Paul Gavin of Harmsworth Associates, Inc. A total of 14 pairs of coastal California gnatcatcher were detected throughout suitable CSS habitat on-site during the 2016 surveys (Appendix B and C, MBI 2016).

a)	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 Services?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

a) Less than Significant Impact with Mitigation Incorporated. The Vegetation Communities, Land Uses, and Special Status Species are shown in Figure 5. Catalina mariposa lily (CRPR 4.2) was found near Scout Trail in the eucalyptus woodland, which would not be affected by the Project. Southern California black walnut (CRPR 4.2) was found in the middle to upper reaches of the canyon wash where no activities are proposed; this species would not be affected. Coulter's matilija poppy (CRPR 4.2) was found by the main park entrance where the Canyon View Staging Area work would occur, but the poppies appear to have been installed for native ornamental restoration; impacts would be less than significant. San Diego County needle grass (CRPR 4.2) was found by the Lakeview Trail (proposed to be renamed North Loop Trail) where the Historic Reservoir Viewing Areas work would be conducted and where a boardwalk would be added over an existing drainage to connect the Canyon View Staging Area to the trail. Work in these areas would be limited to the trail area; and, therefore, impacts to these species would be less than significant. In addition, due to the Canyon Fire II, much of the habitat in the northern portion of the PCRP was burned. Although CSS restoration efforts are occurring, the likelihood of potential impacts to those portions of the Project area are decreased. Due to both existing conditions and the siting of the trails and staging areas, impacts to sensitive plant species would be less than significant.

Of the eight additional plant species with a moderate to high potential to occur, Catalina mariposa lily, Coulter's matilija poppy, and Intermediate mariposa-lily are covered under the NCCP/HCP. Proposed impacts to special status species with a CRPR 1 or 2 (i.e., plants rare, threatened, or endangered in California) may require mitigation if not covered by the County NCCP/HCP. Based on the proposed activities within the vicinity of potential habitat for Intermediate mariposa-lily, Allen's pentachaeta, chaparral ragwort, white rabbit-tobacco, and San Bernardino aster, impacts to these species (e.g., crushing, covering or shading, or removal) may be significant if they are present.

Of the 46 special status wildlife species identified with a potential to occur, 10 bird and 4 reptile species were observed during the reconnaissance survey. The bird species included least Bell's vireo, coastal cactus wren, coastal California gnatcatchers, little willow flycatcher, Cooper's hawk, sharp-shinned hawk, northern harrier, yellow-breasted chat, and yellow warbler. The reptile species included red-diamond rattlesnake, orange-throated whiptail, coastal whiptail, and western pond turtle. Wildlife species are mobile, which may result in the species occurring in areas where they were not observed during the reconnaissance survey. The additional wildlife species with a moderate to high potential for occurrence may be nesting, foraging, or passing through.

Creation and modification of the trails, as well as construction of restrooms and renovated entrance, would create both permanent and temporary structures and would temporarily introduce construction equipment to the Project area. The equipment would be removed and disturbed earth would be returned to pre-construction conditions and elevations once all

construction has been completed. The improvements to access the existing 16-inch domestic water line require trenching through upland sage gnatcatcher habitat and then across Jamboree Road and through the landscaped median. A field topographic survey would be required to accurately place the alignment with the least amount of impacts to the existing vegetation while staying out of existing utility easements, as noted in mitigation measure BIO-4, below.

Permanent structures (i.e., ranger station, restrooms, shade structures) would be located in areas where habitat for these sensitive status species does not exist or is of poor suitability, if present. The construction of the ranger station, restrooms, and shade structures covers a minimal area of the park and would not be expected to remove habitat or displace any species; however, construction activities may affect the reptile and bird species. Most reptiles are active during warm seasons. The species are subject to environmental changes and may be impacted during breeding and egg-laying seasons. Seasonal avoidance within certain areas may help to minimize impacts to these species. Construction activities would be temporary in duration; however, the short-term presence of construction vehicles, equipment, and crews may result in temporary noise, visual impacts, and the potential to run over reptilian species. To avoid impacts to these species, Mitigation Measures BIO-1, BIO-2, and BIO-3 would be implemented. Impacts would be less than significant with implementation of mitigation.

As outlined in the PCRP RMP, all BMPs would be implemented when working near or potentially impacting western pond turtle and their habitat. All new trails and maintenance roads within the park would be minimized to the greatest extent possible and provide and maintain buffers between turtle habitat. As outlined in the RMP, any projects occurring near turtle habitat should evaluate the opportunity to create or enhance habitat for turtles within and/or near the Project site. If de-water, dredging, or filling a waterbody within the park, relocation may be necessary, and the appropriate permits must be obtained. All potential western pond turtle habitat within the park can be identified via referencing the vegetation map. Further, impacts to special-status species, habitat, and sensitive resources should be addressed before implementing any park improvements suggested within the GDP.

The RMP notes that the Proposed Project construction activities should avoid the general bird breeding season (typically January through July for raptors and February through August for other avian species), as practicable; however, construction may be necessary year-round. Nesting birds can be vulnerable to disturbance during the breeding and nesting season as new breeding territories are established, eggs are laid, hatchlings are being fed, and the young fledge. Construction activities would be temporary in duration. The presence of construction vehicles, equipment, and crews may result in temporary noise and visual impacts to avian species. Mitigation Measures BIO-2 and BIO-3 would be implemented. Impacts would be less than significant with implementation of mitigation.

Figure 5: Vegetation Communities, Land Uses, and Special Status Species


Jamboree Rd
Pioneer Rd
261
Legend
Survey Area
Vegetation Communities/Land Uses
Special-Status Species Observations
Birds
Coastal California gnatcatcher
Least Bell's vireo
Yellow-breasted Chat
0 200 400 Feet
PETERS CANYON REGIONAL PARK (PECA) RESOURCE MANAGEMENT PLAN
BIOLOGICAL RESOURCES REPORT
Vegetation Communities, Land Uses, and Special-Status Species
Figure 5b


Lower Lake Dr
Pioneer Rd
Legend
Survey Area
Vegetation Communities/Land Uses
Diegan Coastal Sage Scrub (32500)
Southern Willow Scrub (63320)
Valley Freshwater Marsh (52410)
Mule Fat Scrub (63310)
Disturbed Wetland (11280)
Eucalyptus Woodland (79100)
Non-Native Grassland (42200)
Disturbed Habitat (11300)
Urban/Developed (12000)
Bare Ground
Special-Status Species Observations
Birds
Coastal California gnatcatcher
Least Bell's vireo
Sharp-shinned Hawk
Yellow-breasted Chat
0 200 400 Feet
PETERS CANYON REGIONAL PARK (PECA) RESOURCE MANAGEMENT PLAN
BIOLOGICAL RESOURCES REPORT
Vegetation Communities, Land Uses, and Special-Status Species
Figure 5c

Project activities would occur based on priority and available funding and would occur in various locations across the park; therefore, they would not result in a continuous disruption to migratory, foraging, or breeding pathways. Birds affected by the presence of construction would have the opportunity to temporarily flush and seek cover during construction. Mitigation Measure BIO-2 requires that a qualified biologist conduct a preconstruction nesting bird survey to determine the presence/absence, location, and status of any active nests on or adjacent to the Project area. The extent of the survey buffer area surrounding the site would be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3 would minimize potentially significant impacts to less than significant.

Mitigation Measures:

BIO-1: Due to the abundance of suitable habitat throughout the park, focused rare plant surveys shall occur, prior to construction, during the blooming periods of each sensitive species to determine presence or absence of these special status plant species in the specific areas proposed for disturbance to their habitat types. These surveys may be conducted to combine multiple species based on the overlap of blooming periods or when species are expected to be conspicuous. If present, the areas containing these species are required to be marked in the field and avoided. A biologist is required to be available to monitor and provide guidance for construction activities when sensitive species may be directly affected.

BIO-2: To avoid the destruction of active nests and to protect the reproductive success of birds protected by the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, nesting bird surveys shall be performed by a qualified biologist twice per week during the three weeks prior to the scheduled vegetation clearance if vegetation clearance occurs during nesting season. If active nests are discovered, a suitable buffer (distance to be determined by the biologist or overriding agencies) shall be established around active nests; and no construction within the buffer shall be allowed until the biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest). No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring from September through December.

BIO-3: Environmental awareness training will be provided to educate project personnel to recognize that sensitive species occur in the area, to refer to the expertise of the biologist on site, and to minimize impact footprints.

BIO-4: Trenching to access the existing 16-inch domestic water line shall be preceded by a field topographic survey to accurately place the alignment with the least amount of impacts to the existing vegetation while staying out of existing utility easements. A qualified biologist shall provide the appropriate recommendations for avoidance or minimization of impacts to the species during construction. If avoidance is not possible, a project-specific mitigation plan will include replanting with a non-irrigated seed mix and a monitoring period of three to five years, as required by the appropriate regulatory agencies.

b)	Would the project have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. Riparian habitat occurs on the western border of the middle section of the park and at the northeast corner of the Project area, but only the work conducted at the Canyon View Avenue Entrance, and at the Peters Canyon Trail east of the area would potentially affect this habitat. The Project does not propose the removal of any riparian habitat, but passing equipment may temporarily and/or indirectly affect this habitat due to trimming, dust, and/or shading. Prior to construction within these areas, grading permits and other required construction permits will be obtained in order to comply with existing codes and regulations. These permits will require the use of BMPs that will reduce impacts regarding dust. Neither the potential for construction equipment to shade riparian areas nor the need for trimming in riparian habitat will reduce in significant adverse impacts; thus impacts would be considered less than significant.

c)	Would the project have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. Wetlands are found in the northeast corner of the Project area within the Upper Peters Canyon Reservoir. Work upon the new Canyon View Entrance and upon the existing bridge may have temporary impact due to passing equipment, but no construction is proposed within the wetlands located in the Project area. The proposed Project would have less than significant effects on any wetland habitats.

d)	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 impeded the use of native wildlife nursery sites?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) Less than Significant Impact. The proposed Project would not have a substantial adverse effect on any native resident or migratory fish, wildlife species, established native resident or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites. This region may be a migratory corridor for a multitude of species within the urban environment, but no permanent impedances would be in place that would create any significant impacts upon the migratory pathway of any species. Temporary construction equipment and new shade structures would be

in place, but the equipment and structures would not impede use of this corridor. Impacts would be less than significant.

e)	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

e) No Impact. The proposed Project would not have any conflicts with local policies or ordinances protecting biological resources. No other local policies or ordinances within the cities of Orange and Tustin are known to be applicable to this Project. No impacts would occur.

f)	Would the project conflict with provisions or an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

f) Less than Significant Impact. This Project area is located within and is subject to the requirements and provisions set forth in the Central Subarea of the County of Orange Central and Coastal Subregion County NCCP/HCP. Coastal California gnatcatcher, coastal cactus wren, and orange-throated whiptail are three target species subject to the County NCCP/HCP. The project activities will be consistent with the management requirements for the County NCCP/HCP. Although construction would occur within the park, these activities would not conflict with the NCCP/HCP; therefore, impacts would be less than significant.

3.3.5 Cultural Resources

Rincon Consultants, Inc. (Rincon) conducted a cultural resources literature review with the California Historical Resources Information System (CHRIS) housed at the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton on March 22, 2016. The results identified a total of 55 previous investigations within the Project area and a 0.5-mile radius surrounding it. Of these, 21 studies included a portion of the Project area. A total of 16 cultural resources have been previously recorded within the search area. Of the 16, seven cultural resources have been recorded within the Project boundary. These include four prehistoric sites, two historic refuse sites, and historic ruins of concrete latrines.

A paleontological records search was conducted at the Natural History Museum of Los Angeles County (NHM). Additional records searches were conducted using the online collections databases maintained by the University of California Museum of Paleontology (UCMP), NEOMAP (UC Berkeley), and the Paleobiology Database. Records search details from the NHM are provided in Appendix D.

Rincon contacted the Native American Heritage Commission (NAHC) for a Sacred Lands File search on April 12, 2016. The results of this inquiry resulted in negative findings for Sacred Lands files and included a list of Native American representatives to contact for additional information. On May 17, 2016, Rincon received a response from Ms. Rebecca Robles of the United Coalition to Protect Panhe (UCPP) who

indicated that although she did not know of any specific cultural resources within the Project area, the area in general is considered culturally sensitive. She requested to be notified of any archaeological resources that are discovered within the park and requested an opportunity to comment on the park's cultural resources management plan. This communication with Rincon and Ms. Robles was conducted by the consultant to collect background information and does not serve to address requirements under Assembly Bill (AB) 52 with regards to Tribal Consultation related to tribal cultural resources.

Rincon conducted a pedestrian survey April 19 through April 21, 2016, of the Project area. The survey included all accessible areas; and, when possible, the survey was conducted in 15-meter-wide transects across the Project area except for areas of steep terrain (greater than 30-degree slope). The reported conditions of the 340-acre Project area at the time of their survey found much of the area to be covered by dense vegetation, resulting in limited surface visibility. During the survey, the previous sites were revisited, and four new sites were identified. The four new sites include two prehistoric sites, one historic site, and one prehistoric isolate. Additional information, including Methods and Results are provided in Appendix E.

On March 24, 2017, the County sent letters to three Native American representatives that have requested formal notification from the County regarding projects in this area. Those notified include: Andrew Salas, Gabrieleno Band of Mission Indians – Kizh Nation; Joyce Stanfield Perry, Juaneno Band of Mission Indians; and Joseph Ontiveros – Soboba Band of Luiseno Indians. On April 3, 2017, Mr. Andrew Salas responded, requesting consultation on the Project. On April 26, 2017, the County held a telephone conference call with Mr. Salas and Mr. Teutimez with the Gabrieleno Band to discuss the Project. From the County, Chris Uzo-Diribe (Planner IV), Jenny Stets-Stephano (Senior Project Manager), and Laree Alonso (Planning Manager) were in attendance. Chambers Group, Inc. (Chambers Group) Archaeologist Rachael Nixon and Project Manager Lisa Louie were also in attendance as consultants to the County. An overview of the Project-intended development and the results of the cultural resources study was discussed with Mr. Salas and Mr. Teutimez. Mr. Salas and Mr. Teutimez provided an overview of their oral historical account and knowledge of the Project area, specifically as it relates tribal cultural resources. They indicated the previously recorded prehistoric archaeological sites within the Project area are tribal cultural resources, and the likelihood for subsurface tribal cultural resources is also possible in this area. As such, they requested Native American monitoring during ground-disturbing work within the Project area, with the exception of trail-related work (maintenance/improvements or the new trails).

a)	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

a) Less than Significant with Mitigation Incorporated. Chambers Group reviewed the information provided in the Cultural Resources report, without sensitive resource information, prepared by Rincon (2016). The study identified a total of 12 cultural resources, including the following: one architectural history resource (Upper Peters Canyon Reservoir) and 11 archaeological resources (seven previously recorded and four newly identified). Based on the information presented in this report Chambers Group concurs with the recommendations that the Upper Peters Canyon Reservoir is not eligible for the California Register of Historical Resources (CRHR) under any criteria; as such, no further work is required. Additionally, Chambers Group recommends five of the archaeological resources identified (P-30-001200, -001359, -001548, PCRP-03, and PCRP-Iso-

1) as not eligible for CRHR under any criteria. Four previously recorded archaeological sites (P-30-000184, -000547, -00557, and -001153) have been mitigated to less than significant levels through previous testing and/or data recovery and have been impacted by previous development in the area (Rincon 2016). Lastly, two newly recorded sites PCRP-01 and PCRP-02 have not been formally evaluated for CRHR eligibility as a historical resource under CEQA.

The park improvements do not propose ground-disturbing activities within any of these cultural sites. As such, the Project would not cause a substantial adverse change in the significance of historical resources as defined by CEQA. In the event the improvements require ground-disturbing work within 100 feet of these sites, Mitigation Measure CR-1 shall be required. Implementation of Mitigation Measure CR-1 would reduce potential impacts to historical resources to less than significant level.

Mitigation Measures:

CR-1: A qualified archaeological monitor shall be present during all ground-disturbing activity associated with park improvements. In the event that subsurface archaeological materials are encountered, all ground-disturbing construction activities must be suspended within 100 feet of the find until the deposit is recorded and evaluated by a qualified archaeologist.

Prior to ground disturbance within 100 feet of previously unevaluated or mitigated sites including, PCRP-01 and/or PCRP-02, and where avoidance is not possible, a qualified archaeologist will evaluate the sites to determine if they meet the definition of a historical or unique archaeological resource under California Public Resources Code (PRC) Section 21084.1 and PRC Section 21083.2, respectively. If they do so qualify, the County shall require that the archaeological site be avoided or mitigated to less than significant through data recovery and/or preservation, as recommended by the qualified archaeologist. Such mitigation may consist of additional research, documentation, excavation, analysis, and/or public outreach and interpretation.

b)	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

b) Less than Significant with Mitigation Incorporated. The cultural resources assessment prepared by Rincon identified a total of 11 archaeological resources, including seven previously recorded and four newly identified sites. Based on the information presented in Rincon's report, Chambers Group recommends the following:

- Five of the archaeological sites identified (P-30-001200, -001359, -001548, PCRP-03, and PCRP-Iso-1) are recommended not eligible for CRHR under any criteria.
- Four previously recorded archaeological sites (P-30-000184, 000547, -00557, and -001153) have been previously mitigated to less than significant levels through previous testing and mitigation work that has occurred at these sites (Rincon 2016).

- Lastly, two newly recorded sites PCRP-01 and PCRP-02 have not been formally evaluated for CRHR eligibility. Based on the results of the field survey, much of the Project area is covered by dense vegetation obscuring surface visibility; as such, additional sites may be below the vegetation. Also, previous resources have been encountered during monitoring; and, as a result, a chance remains that subsurface archaeological materials may be present.

As noted above, the proposed Project improvements do not involve ground disturbance near sites PCRP-01 or PCRP-02; therefore, no impact or adverse change in the significance of these archaeological resources pursuant to CEQA would occur. In the event the improvements require ground-disturbing work within 100 feet of these sites, then Mitigation Measure CR-1 above shall be required for these two sites. Due to the fact that the archaeological resources occur within the park boundary, all proposed ground-disturbing work within the Project area shall be monitored by an archaeologist.

c)	Would the project disturb any human remains, including those interred outside of formal cemeteries?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

c) Less than Significant with Mitigation Incorporated. Any future development would be subject to the following actions in Mitigation Measure CR-2, promulgated in PRC 5097.97 and Health and Human Safety Section 7050.5(b) of the California Health and Safety Code, pertaining to the discovery of human remains. Refer also to Section 3.3.18 for a discussion on Tribal Cultural Resources. Therefore, impacts would be less than significant.

CR-2: If human remains are encountered, excavation or disturbance of the location must be halted in the vicinity of the find and the county coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be the most likely descendent (MLD) from the deceased Native American. The MLD makes recommendations regarding the treatment of the remains with appropriate dignity. In the event the MLD is unable to provide recommendations, the project owner shall reinter the remains in a location within the project area that will not be subject to further disturbance.

3.3.6 Energy

a)	Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

a) No Impact. Implementation of the proposed Project would result in implementation of the GPD and RMP for the PCRP, which includes the installation of restrooms at various locations in the PCRP. The proposed Project would, at a minimum, implement CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings. Compliance with this regulation would result in any new or updated structures requiring less electricity, natural gas, and other fuels for operational purposes. During construction energy consumption would also be reduced through following the 2016 AQMP which includes a heavy-duty vehicle emissions control program which includes requirements for cleaner engine standards and reducing idling time. Following rules such as those outlined in the 2016 AQMP will unnecessary usage and idling of vehicles, which will in turn reduce energy usage. Therefore, the proposed Project would result in less than significant impacts associated with wasteful or inefficient energy consumption during construction or operation.

b)	Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. The proposed Project would, at a minimum, comply with CCR Title 24, which regulates the amount of energy consumed by new development for heating, cooling, ventilation, and lighting. Therefore, the proposed Project, would result in less than significant impacts associated with renewable energy or energy efficiency plans.

3.3.7 Geology and Soils

Under the Public Safety Element of the County of Orange General Plan, Alquist-Priolo fault zones are located in the Prado Dam, Seal Beach, Newport Beach, La Habra, Los Alamitos, and Yorba Linda quadrangle maps (County of Orange 2013). Two faults traverse the area: the Peralta Hills Fault and El Modena Fault. The Peralta Hills Fault goes through Lincoln Avenue over the Santa Ana River (northwest), east along the base of the Peralta Hills, into Villa Park, and south into the hills west of the Peters Canyon Reservoir. Peters Canyon Regional Park is located within a Level VI intensity area. For reference, a Level VI intensity is comparable to 5.0 to 5.9 on the Richter Scale, with physical effects equal to heavy furniture moved, fallen plaster, damaged chimneys, and overall slight damages (City of Orange 2010).

The project area encompasses an alluvial plain terrain and bedrock. The alluvial plain is susceptible to flooding and seismically induced liquefaction; however, low potential for landslides exists. Bedrock is less

susceptible to liquefaction but may be prone to earthquake-induced landslides depending on the area and underlying bedrock (City of Orange 2010). Based on the Department of Conservation's Seismic Hazards Zones Map, portions of the Project area are located in areas that have a historic occurrence of liquefaction (DOC 1998).

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
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 fault? Refer to Division of Mines and Geology Special Publication 42.	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) i) Less than Significant Impact. The proposed Project would not directly or indirectly cause substantial adverse effects to people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazards of surface faulting and fault rupture to built structures. Fault rupture generally occurs within 50 feet of an active fault line and is limited to the immediate area of the fault zone where the fault breaks along the surface. Because the Project area is not located within an Alquist-Priolo Earthquake Fault Zone, a less than significant impact would occur.

ii) Strong seismic ground shaking?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) ii) Less than Significant Impact. The proposed Project would be located in the vicinity of the Peralta Hills Fault and El Modena Fault. Each of these fault zone systems is capable of producing a Level VI intensity which is comparable to a 5.0 to 5.9 on the Richter Scale. These faults could result in strong earthshaking in the Project area; however, this is an existing condition and the Project would not directly or indirectly cause an additional risk to increased ground shaking due to project activities. A less than significant impact would result.

iii) Seismic-related ground failure, including liquefaction?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

a) iii) Less than Significant with Mitigation Incorporated. The proposed Project is located in areas that have a historic occurrence of liquefaction. The proposed Project is the preparation of a GDP and RMP to provide guidance on overall park goals and plans for future development at the park and would include improvements to existing trails and parking, and development of new park facilities. Consideration of the liquefaction potential will be incorporated into the design of Project structures as recommended by the Guidelines for Evaluating and Mitigating Seismic Hazards in California (CGS 2008). For public safety purposes, the County will conduct geotechnical studies for the specific engineering design of structures prior to construction and specific siting for Project features to avoid placement of Project features in hazardous areas. Implementation of Mitigation Measure GEO-1, described below, would reduce potential impacts to less than significant levels.

Mitigation Measure:

GEO-1: Prior to approval of final plans for specific facilities, as needed and where appropriate, a geotechnical study shall be completed by an engineering geologist or equivalent to evaluate seismic and non-seismic soil conditions, including but not limited to, expansion potential, subsidence, slope stability and corrosiveness. This report shall include evaluation of soil characteristics, identification of potential soil concerns and appropriate measures to address site specific soil conditions. Recommendations of the geotechnical study shall be incorporated into the final design plans. The final geotechnical study shall be submitted to Orange County Parks for review and approval.

iv) Landslides?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☒	☐

a) iv) Less than Significant Impact. The Project area encompasses an alluvial plain terrain and bedrock. Low potential for landslides exists in the alluvial plain. Bedrock may be prone to earthquake-induced landslides, depending on the area and underlying bedrock. However, this is an existing condition, and the Project would not directly or indirectly cause an additional risk to increased potential for landslides due to project activities. A less than significant impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☒	☐

b) Less than Significant Impact. The proposed Project is the preparation of a GDP and RMP to provide guidance for the park's resources and plans for future development at the park. Future removal of vegetation during construction may temporarily increase the risk of erosion of soils. Exposed soils are considered erodible when subjected to concentrated surface flow or wind. Soil erosion and loss of topsoil would be minimized through compliance with the SCAQMD Rules 402 and 403 and the National Pollutant Discharge Elimination System (NPDES) permit requirements. The NPDES permit requirements include standard BMPs such as preservation of existing

vegetation, use of hydraulic mulch, hydroseeding, use of soil binders, use of straw mulch or wood mulch, use of geotextiles and mats, streambank stabilization, and velocity dissipation devices.

In addition to compliance SCAQMD and NPDES requirements, impacts were further reduced through project siting. For example, an alternative location for the Lower Peters Canyon restroom was considered on the east side of the creek in the location of the existing portable restrooms. However, the proposed location on the west side of Lower Peters Canyon Reservoir spillway minimizes impacts to resources, as no trenching under the creek would be required. In addition, this location also minimizes impacts due to the accessibility to existing utility lines from the west side.

Use of these standard BMPs and consideration of siting of Project features would reduce erosion potential following construction to less than significant.

c)	Would the project be located in a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

c) Less than Significant Impact with Mitigation Incorporated. While the Project is located in a potential liquefaction zone as discussed above in subsection iii, the Project would not increase the probability of such an event occurring and soil report shows that the soils underlying the Project area consist of clays, loams, sandy loams, riverwash, and cobby loam, most of which have low expansion potential. For public safety purposes, the County will conduct geotechnical studies for the specific engineering design of structures prior to construction and specific siting for Project features would be identified in order to avoid placement of Project features in hazardous areas, as noted in mitigation measure GEO-1. Impacts would be less than significant.

d)	Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

d) Less than Significant Impact with Mitigation Incorporated. The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2018) shows that the soils underlying the Project area consist of clays, loams, sandy loams, riverwash, and cobby loam, most of which have low expansion potential. For public safety purposes, and as noted in mitigation measures GEO-1, the County will conduct geotechnical studies for the specific engineering design of structures prior to construction and specific siting for Project features would be identified in order to avoid placement of Project features in hazardous areas. Impacts would be less than significant with implementation of mitigation measure GEO-1.

e)	Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

e) No Impact. The Project does not involve the construction or installation of new septic tanks or other wastewater disposal systems. Existing systems would be utilized. No impact would occur.

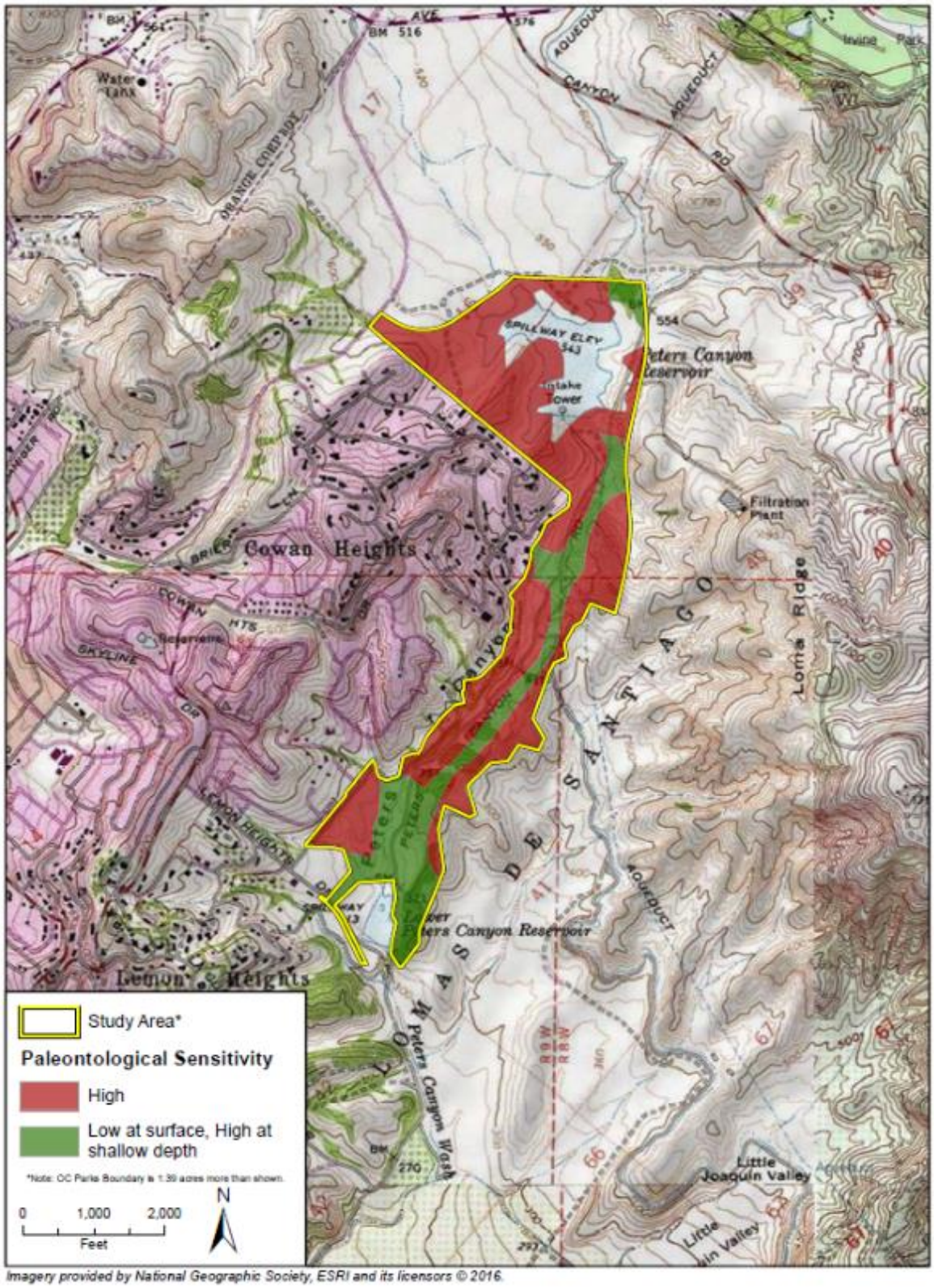
f)	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

f) Less than Significant with Mitigation Incorporated. The Project area contains three mapped units of high paleontological sensitivity: Quaternary very old fanglomerate (Pleistocene), undivided Topanga Group (middle Miocene), and Vaqueros-Sespe undifferentiated (Eocene to Miocene). These units have the potential to yield scientifically significant paleontological resources at the surface and at depth. As shown in Figure 6, a large portion of the Project area has a high paleontological sensitivity.

Ground-disturbing work associated with the proposed Project has the potential to impact paleontologically sensitive geologic units and, as such, could result in significant impacts to scientifically important paleontological resources. Excavations within the park have a potential to disturb the following three high-sensitivity geologic units:

(1) Pleistocene-age fanglomerates
(2) Undivided Topanga Group
(3) Vaqueros-Sespe formations

Figure 6: Paleontological Sensitivity



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Each of these units has the potential to yield significant vertebrate fossils. In addition, any excavations at depths greater than 5 feet in young fanglomerates and landslides in Vaqueros-Sespe deposits have the potential to encounter significant vertebrate fossils in the underlying bedrock. Impacts to paleontological resources resulting from ground-disturbing construction activity could include the destruction of fossils and would be considered a significant impact without mitigation. Implementation of Mitigation Measure PALEO-1 would reduce potential impacts to paleontological resources to less than significant.

Mitigation Measure:

PALEO-1: Paleontological Mitigation and Monitoring Plan and Paleontological Monitoring: Prior to ground-disturbing work, a qualified paleontologist shall review the Project plans to determine if proposed activity could result in disturbance to geologic units with high paleontological sensitivity at the surface or units present below units with low sensitivity at the surface. If potential impacts to paleontological resources are identified during the project-level review of plans, then the following measures shall be implemented:

(a) Paleontological Mitigation and Monitoring Plan: Prior to any construction activity, a qualified paleontologist shall prepare a Paleontological Mitigation and Monitoring Plan to be implemented prior to and during ground disturbance activity for the proposed Project. This plan shall outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration, salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications.

(b) Paleontological WEAP: Prior to the start of construction, construction personnel shall be educated by a qualified paleontologist about the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.

(c) Paleontological Monitoring: Any excavations or other ground-disturbing activity in areas mapped as high paleontological sensitivity (Figure 6) shall be monitored for the duration of construction activities by a qualified paleontological monitor. Should no fossils be observed during the first 50 percent of excavations, paleontological monitoring could be reduced to weekly spot-checking, but only at the discretion of the qualified paleontologist.

(d) Salvage of Fossils: If fossils are discovered, the qualified paleontologist (or paleontological monitor) shall recover them. Typically, fossils can be safely salvaged quickly by a single paleontologist without disrupting construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist shall have the authority to temporarily direct, divert, or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.

(e) Preparation and Curation of Recovered Fossils: Once salvaged, fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready

condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps.

(f) Final Paleontological Mitigation and Monitoring Report: Upon completion of ground-disturbing activity (and curation of fossils if necessary), the qualified paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report shall include discussion of the location, duration, and methods of the monitoring, stratigraphic sections, any recovered fossils and the scientific significance of those fossils and where fossils were curated (if applicable).

3.3.8 Greenhouse Gas Emissions

This section describes the potential global climate change effects from implementation of the proposed Project. Construction GHG emission modeling was performed through use of the CalEEMod Version 2016.3.1. The model output is provided in Appendix F.

a)	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. Significant legislative and regulatory activities directly and indirectly affect climate change and GHGs in California. The primary climate change legislation in California is Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing greenhouse gas emissions in California and requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. In addition to AB 32, Executive Order B-30-15 was issued on April 29, 2015, that aims to reduce California's GHG emissions to 40 percent below 1990 levels by 2030. In September 2016, AB 197 and Senate Bill (SB) 32 codified into statute the GHG emission reduction targets provided in Executive Order B-30-15.

CARB is the State agency charged with monitoring and regulating sources of emissions of GHGs in California that contribute to global warming in order to reduce emissions of GHGs. The CARB Governing Board approved the 1990 GHG emissions level of 427 million metric tons of CO_2 equivalent ($MtCO_2e$) on December 6, 2007. $MtCO_2e$ is a unit of measurement that standardizes the impacts of all GHG emissions into a unit of mass CO_2. Therefore, in 2020, annual emissions in California are required to be at or below 427 million $MtCO_2e$. The CARB Board approved the Climate Change Scoping Plan (Scoping Plan) in December 2008 and the First Update to the Scoping Plan in May 2014. The Scoping Plans define a range of programs and activities that will be implemented primarily by State agencies but also include actions by local government agencies. Primary strategies addressed in the Scoping Plans include new industrial and emission control technologies; alternative energy generation technologies; advanced energy conservation in lighting, heating, cooling, and ventilation; reduced-carbon fuels; hybrid and electric vehicles; and other methods of improving vehicle mileage. Local government will have a part in implementing some of these strategies. The Scoping Plans also call for reductions in vehicle-associated GHG emissions through smart growth that will result in reductions in vehicle miles traveled (CARB 2008, 2014).

The CalEEMod model used above to calculate the criteria pollutant emissions was also utilized to calculate the GHG emissions associated with construction and operation of the proposed Project (see Appendix F). The CalEEMod model calculated GHG emissions generated from the proposed Project's area sources, energy usage, mobile sources, solid waste, water and waste water, and construction activities. Per the analysis methodology presented in the SCAQMD Working Group meetings, the construction emissions were amortized over 30 years. Table 12 shows the estimated GHG emissions that would be predicted from development of the proposed Project.

Table 12: Annual Greenhouse Gas Emissions from the Proposed Project

Activity	Greenhouse Gas Emissions in metric tons/year			
	CO_2	CH_4	N_2O	CO_2e
Lower Peters Canyon Trailheads and Restroom				
Operational	4.32	0.00	0.00	4.34
Construction[1]	2.31	0.00	0.00	2.33
Lower Peters Canyon Trailheads and Restroom Total	6.63	0.00	0.00	6.67
Skylark Place Staging Area				
Operational	0.00	0.00	0.00	0.00
Construction	30.14	0.00	0.00	30.27
Skylark Place Staging Area Total	160.77	0.01	0.00	161.45
Canyon View Staging Area				
Operational	36.43	0.00	0.00	36.57
Construction	3.98	0.00	0.00	4.00
Canyon View Staging Area Total	40.41	0.00	0.00	40.57
Big Red Rest Area				
Operational	3.39	0.00	0.00	3.40
Construction	2.30	0.00	0.00	2.32
Big Red Rest Area Total	5.69	0.00	0.00	5.72
Historic Reservoir Viewing Areas, Overlook Trail and Other Trails				
Operational	65.19	0.01	0.00	65.45
Construction	4.17	0.00	0.00	4.20
Historic Reservoir Viewing Areas, Overlook Trail and Other Trails Total	69.36	0.01	0.00	69.65
Total Project Emissions	**139.73**	**0.03**	**0.00**	**140.32**
SCAQMD Draft Threshold for all Land Use Types	*3,000*			
Exceed Threshold?	**No**			

Notes:
[1] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
Source: CalEEMod Version 2016.3.1.

This analysis proposes to use the Tier 3 quantitative threshold for all land use projects[2] as recommended by the SCAQMD. The SCAQMD proposes that if a project generates GHG emissions below 3,000 $MtCO_2e$, it could be concluded that the project's GHG contribution is not "cumulatively considerable" and is therefore less than significant under CEQA. As shown in Table 12, the proposed Project would generate 142.57 $MtCO_2e$, which would not exceed SCAQMD draft annual threshold of 3,000 $MtCO_2e$. As such, it could be concluded that the Project's GHG contribution is not "cumulatively considerable" and is therefore less than significant under CEQA.

b)	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. The California State Legislature adopted AB 32 in 2006, which requires the State's GHG emissions by 2020 to meet the GHG emissions level created in 1990 and adopted AB 197 and SB 32 in 2016, requiring the State's GHG emissions to be 40 percent below 1990 levels by 2030.

In order to achieve the target provided in AB 32, the SCAQMD developed a Working Group that developed a tiered approach in order to determine if proposed land use projects would contribute to an exceedance of the GHG emissions targets detailed in AB 32. As shown above in Table 12, the proposed Project would generate 142.57 $MtCO_2e$ per year from construction and operation of the proposed Project. The GHG emissions generated from the proposed Project would be within the Tier 3 quantitative threshold of 3,000 $MtCO_2e$ per year for all land use projects as recommended by the SCAQMD.

The SCAQMD has not yet updated its Tier 3 quantitative threshold to address AB 197 and SB 32. However, it is anticipated that the Tier 3 thresholds would be reduced around 40 percent, which is equivalent to how much more stringent AB 197 and SB 32 are over AB 32. Since the proposed Project's GHG emissions are 89 percent below the Tier 3 threshold, it is anticipated that the proposed Project's GHG emissions would remain less than significant under any future thresholds developed to address AB 197 and SB 32. Therefore, the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for reducing the emissions of GHGs. A less than significant impact would occur.

3.3.9 Hazards and Hazardous Materials

The Project area is not located on a currently active hazardous material site; five hazardous sites are listed within 2 miles of the Project area. An inactive, State Response, Irvine Park Army Camp cleanup site is located 1 mile northeast of the Project area. An inactive military evaluation site is located approximately 1.6 miles south of the Project area. Known as the Camp Commander site, it is located adjacent to the Lower Peters Canyon Retarding Basin (DTSC 2016).

[2] Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting # 15. *South Coast Air Quality Management District. September 2010.*

Three Permitted Underground Storage Tank (UST) facilities are each listed approximately 0.5 mile north of the Project area: City of Orange Fire Station No. 7 (30-030-800026) by the City of Orange and Santiago Hills Auto Spa Inc. with two permits separately listed by the City of Orange (30-030-010909) and the Orange County Environmental Health (FA0026586) (SWRCB 2016).

The nearest schools to the Project area are Peters Canyon Elementary School (0.4 mile southeast), Chapman Hills Elementary School (0.7 mile north), Arroyo Elementary School (1.5 miles southwest), Panorama Elementary School (1.5 miles west), and Santiago Canyon College (0.5 mile north). John Wayne Airport (9 miles southwest) and Fullerton Municipal Airport (15 miles northwest) are the closest airports to the Project area (Google Earth 2016).

Under the Public Safety section of the City of Orange General Plan, any development located within or adjacent to wildland fire areas is required to prepare and implement a comprehensive fuel modification program in accordance with City regulations. The area surrounding the park is listed as "Wildland Very High Fire Hazard Areas" and "Wildland High Fire Hazard Areas," with the southern area listed as a liquefaction hazard area (City of Orange 2010).

a)	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. Materials that are transported, stored, or disposed of during project construction and operation have the potential to contain hazardous materials and could present a hazard to construction workers, the public, or the environment if improperly managed. Vehicles and equipment used for construction would contain or require the temporary, short-term use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. No chemicals are proposed to be on site after the construction phase of the proposed Project. The proposed Project would comply with all environmental regulations managed by the Orange County Health Care Agency and the Orange County Fire Authority. Additionally, the proposed Project would comply with any applicable rules and regulations, including the State of California Code of Regulations (CCR) Title 23 Health and Safety Regulations. The County shall implement BMPs to reduce potential impacts relative to hazardous materials to less than significant levels. Compliance with applicable local and State rules and regulations and implementation of standard operational procedures and protocols would reduce potential impacts to less than significant levels.

b)	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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. No significant risk of accidental upset or the release of hazardous substances is anticipated based on the proposed Project activities. The proposed Project would

comply with applicable rules and regulations and implement County of Orange BMPs to further limit potential impacts relative to hazardous materials to less than significant levels.

c)	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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. No schools are within 0.25 mile of the Project area. The nearest school to the Project area is Peters Canyon Elementary School, located 0.4 mile to the southeast. The proposed Project involves improvements and plans for Peters Canyon Regional Park. Once operational, the proposed Project would not involve the use of hazardous or acutely hazardous materials. The proposed Project is not anticipated to result in a release of hazardous emissions, hazardous or acutely hazardous material, or substances in the vicinity of sensitive receptors due to implementation of County of Orange BMPs. The emissions would be associated with construction activities and would cease upon completion of construction. A less than significant impact would occur.

d)	Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) Less than Significant Impact. The Project area is not located on a currently active hazardous material site; five hazardous sites are listed within 2 miles of the Project area. An inactive, State Response, Irvine Park Army Camp cleanup site is located 1 mile northeast of the Project area. An inactive military evaluation site is located approximately 1.6 miles south of the Project area; known as the Camp Commander site, it is located adjacent to the Lower Peters Canyon Retarding Basin and would require an investigation (DTSC 2016). However, none of these sites are currently active. A less than significant impact would occur.

e)	Would the project for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

No Impact. John Wayne Airport (9 miles southwest), and Fullerton Municipal Airport (15 miles northwest) are the closest airports to the Project area (Google Earth 2016). The proposed Project

would not result in a safety hazard or excessive noise for people working in the Project area. Therefore, no impacts related to public airports would occur.

f)	Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

e) No Impact. The proposed Project includes development of a GDP and RMP and associated improvements to the existing regional park. The construction of improvements to PCRP would not involve blocking any surrounding streets. The proposed Project would not affect the surrounding streets in a manner that would affect emergency response. No impact would occur.

g)	Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

f) Less than Significant Impact. The area surrounding the park is listed as "Wildland Very High Fire Hazard Areas" and "Wildland High Fire Hazard Areas". During construction, BMPs would be used to prevent any sparks in the area when equipment that may cause sparks are utilized. The Project would not increase the amount of flammable vegetation within the Project area, and thus would not expose people or structures, either directly or indirectly, to a greater risk of fire-related damage, injury, or death in excess of existing levels. No impact would occur. The RMP provides a list of fire management strategies. Impacts would be less than significant.

3.3.10 Hydrology and Water Quality

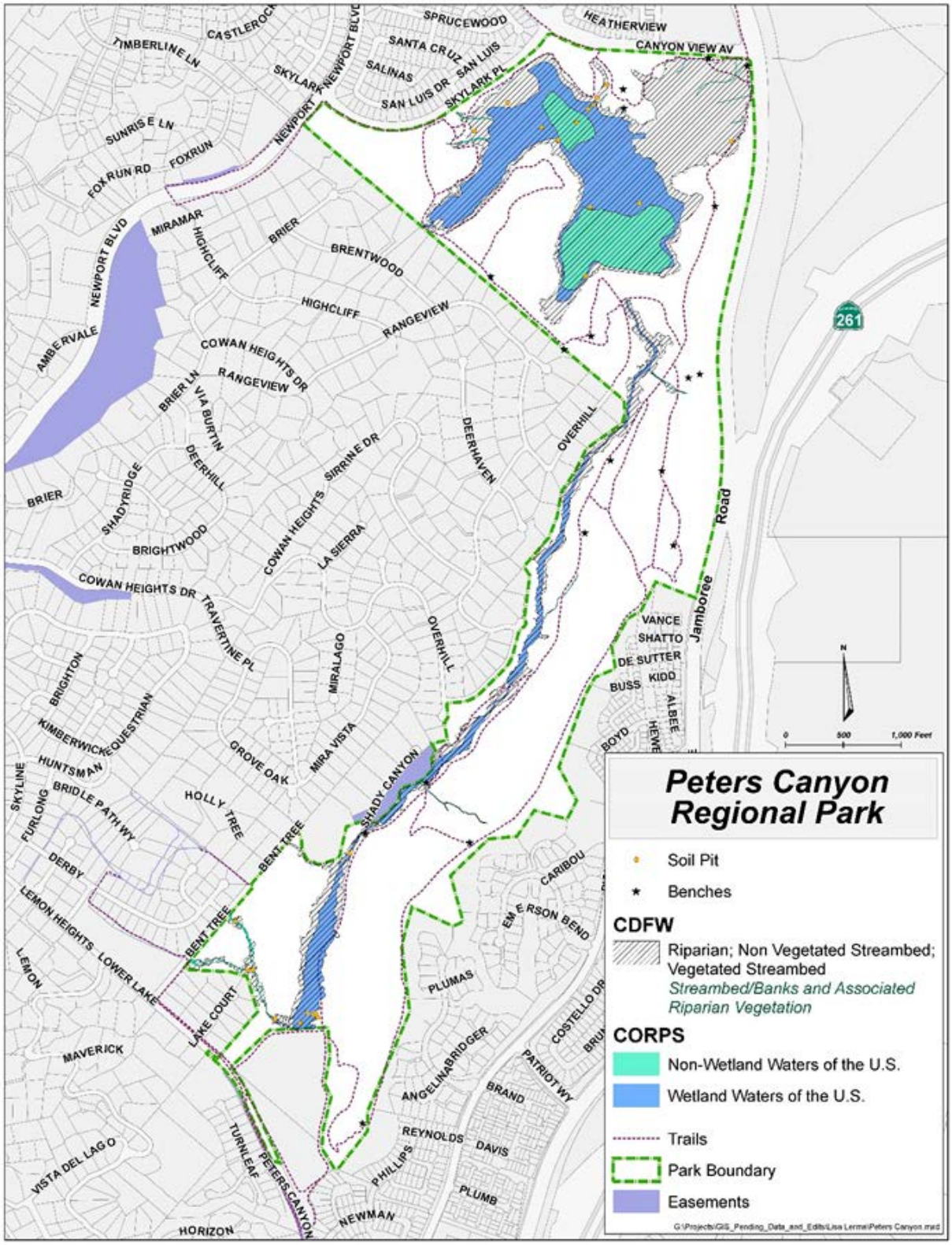
Lakes and waterways near the Project area are Irvine Lake (2 miles east), Santiago Recharge Basin (3.3 miles northwest), Santa Ana River (approximately 6 miles north and traveling southwest), and Rattlesnake Reservoir (approximately 3.6 miles south) (Google Earth 2016). The Project area is not located within the Prado Dam Inundation Area or the Santiago Reservoir Inundation Area (County of Orange 2013).

The park is located within the Santiago Creek Watershed (HUC-10 1807020401) and San Diego Creek Watershed (HUC-10 1807020309) and the Lower Santa Ana River groundwater basin. Peters Canyon Dam (within Peters Canyon and 2 miles west of Irvine Lake) drains south and areas below the dam are within a potential flood hazard. The Project area itself is not subject to dam inundation. Peters Canyon Reservoir is within a Federal Emergency Management Agency (FEMA) 100-Year Flood area. The 100-year flood zone continues south along the western edge of the park and continues further to areas south of the park.

Waters at PCRP (Figure 7) flows to Peters Canyon Wash, which flows to Peters Canyon Channel located offsite south of PCRP. Although PCRP is not listed on the 303(d)(1) list, Peters Canyon Channel is on the list for benthic community effects, DDT, indicator bacteria, malathion, selenium, toxaphene, toxicity, and pH. The proposed Project is subject to the Orange County Drainage Area Management Plan (DAMP). A Water Quality Management Plan (WQMP) would be prepared upon commencement of each approved

GDP project as required. A National Pollutant Discharge Elimination System permit may be required if a discharge to waters of the United States occurs, which would be determined during the Final Design (PS&E) phase for each proposed structure. In addition, an Erosion & Sediment Control plan will be included with construction documents for OCPW review and approval.

Figure 7: Jurisdictional Waters at PCRP



a)	Would the project violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. As one of the tributaries to the San Diego Creek Drainage, PCRP waters provides intermittent beneficial uses to groundwater recharge (GWR), non-contact water recreation (REC2), warm freshwater habitat (WARM), and wildlife habitat (WILD). The Project does not propose any actions that would affect groundwater recharge. Although the Project may temporarily affect non-contact recreation, warm freshwater habitat, and wildlife habitat, the Project proposes the improvement of the park facilities and ultimately provide a benefit to these beneficial uses.

Construction activities would result in soil disturbance. County staff will require compliance with the National Pollution Discharge Elimination System (NPDES) Permit issued by the California Water Resources Control Board and Regional Water Quality Control Board, specifically the Multiple Separate Sanitary Sewer & Storm System (MS4) Permit and, as applicable, the Construction General Permit (CGP). Use of the County OCPW/OC Watersheds standard BMPs available at http://www.ocwatersheds.com/documents/bmp and the Standard Specifications for Public Works Construction ("Green Book") will be required in the submitted construction documents for County of Orange review and approval.

In addition, proposed management strategies in the RMP would include reservoir strategy management that consists of testing and maintaining water quality, non-point source pollution, and nuisance and stormwater drainage.

The proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed Project includes development of a GDP and RMP and associated improvements to the existing regional park, including expansion of parking areas. The GDP/RMP includes requirements that the parking area would be designed with permeable surfaces. During the Final Design (PS&E) phase for each proposed structure, the appropriate plans and permits will be prepared and acquired. Impacts would be less than significant. Impacts to water quality standards, water discharge requirements, and surface and ground water quality would be less than significant. The County of Orange Technical Guidance Document (TGD) and 2003 Local WQMP shall be referred to during the final design phase (County of Orange 2019).

b)	Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less Than Significant Impact. The proposed Project includes development of a GDP and RMP and associated improvements to the existing regional park and includes an increase in parking area

surfaces. Similar to existing conditions, the Canyon View parking area would remain impermeable decomposed granite. However, the overflow parking area (Skylark Place Staging Area) would be designed with permeable surfaces; therefore, the proposed Project would not interfere with groundwater recharge. The proposed Project would not involve the extraction of groundwater and does not propose construction of new impervious surfaces that would prevent water from infiltrating into the groundwater system, except potential restroom facilities and replacement of existing ranger station offices. Considering the parking area is limited in size and location and water could still recharge at the edge of the parking area, the Project is not expected to result in direct additions or withdrawals to existing groundwater. Therefore, the Project would not impede sustainable groundwater management of the basin. Impacts would be less than significant.

c)	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 through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) i) Less Than Significant Impact. The map of existing waters are shown in Figure 7 and the proposed Project would not result in any significant changes to the topography and associated drainage patterns related to these waters. The proposed Project includes development of a GDP and RMP and associated improvements to the existing regional park that include a new overflow parking area and expansion of an existing parking area within the park. The improvements proposed in the RMP and GDP (i.e., new trails, trailheads, and interpretive facilities) would be constructed in a manner that would not alter the course of any drainage, which avoids and minimizes substantial erosion or siltation. Through the siting policies outlined in the RMP, avoidance of sensitive resources, such as drainages, is a priority consideration when locating any future facilities. While the proposed Project includes an increase in parking area surfaces, the overflow parking area would be designed with permeable surfaces, thereby reducing any potential impacts that may result in substantial erosion or degradation of water quality. The Canyon View parking area would remain decomposed granite. Long-term management in the RMP ensures maintenance and preservation of the park's amenities and natural resources. Impacts would be less than significant.

c)	ii) 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 through the addition of impervious surfaces, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) ii) Less Than Significant Impact. There are no current plans for catch basins or bioswales. The Project does not propose to alter the existing drainage patterns as the Project doesn't propose changes to any waters onsite and the conceptual actions are to create a park similar to the function of the existing park. No additional capacity that requires any substantial change is anticipated. See responses 3.3.10.a) and 3.3.10.c) for additional response to items that may affect surface runoff. Impacts would be less than significant.

c)	iii) 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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) iii) Less than Significant Impact. As discussed in the response to 3.3.10.a), the proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed Project includes development of a GDP and RMP and associated improvements to the existing regional park, including expansion of parking areas. The GDP/RMP includes requirements that the parking area would be designed with permeable surfaces. During the Final Design (PS&E) phase for each proposed structure, the appropriate plans and permits will be prepared and acquired. Impacts would be less than significant. Impacts to water quality standards and water discharge requirements would be less than significant.

c)	iv) Would the project impede or redirect flood flows?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) iv) Less than Significant Impact. The portions of the park are within a FEMA 100-Year Flood area. The proposed Project involves the construction of a replacement ranger office and new modular restroom facilities that would not impede or redirect flood flows. A less than significant impact would occur.

d)	Would the project cause or expose In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

No Impact. Although Peters Canyon Reservoir holds water, implementation of the Project would not change use of the park and reservoir and would not add to the level of exposure of persons or structures. The Project would not cause or increase the potential for a seiche (i.e., standing wave oscillating in a body of water), tsunami (i.e., long high sea wave caused by an earthquake, submarine landslide, or other disturbance), or mudflow (i.e., stream or avalanche of mud). No impact would occur.

e)	Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

e) Less than Significant Impact. See response to 3.3.10.a). In addition to BMPs, potential impacts to a water quality control plan or sustainable groundwater management plan are further reduced through siting building structures. For example, an alternative location for the Lower Peters Canyon restroom was considered on the east side of the creek in the location of the existing portable restrooms. However, the proposed location on the west side of Lower Peters Canyon Reservoir spillway minimizes impacts to resources, as no trenching under the creek would be required. In addition, this location also minimizes impacts due to the accessibility of existing utility lines from the west side. During final Design (PS&E) phase for each proposed structure, the appropriate plans and permits will be prepared and acquired. Compliance with treatment measures outlined in the General Construction Permit, the County Drainage Area Manger Plan (DAMP), and measures outlined in 3.3.10 a), would ensure that potential effects would be minimized. A less than significant impact would occur.

3.3.11 Land Use & Planning

PCRP is designated as Planned Community Public/Institutional (PCPI) by the General Plan Map under the City of Tustin General Plan. The surrounding areas include Low Density Residential (LDR) to the northwest and Planned Community Residential (PCR) to the east of the Project area. Peters Canyon is zoned as Recreation Open Space (R-O) with the surrounding area zoned for Planned Community (P-C) and Single Family Residential 7000 square feet (R-1-7). Under the City of Tustin General Plan, Peters Canyon is the largest undeveloped area remaining in the city (City of Tustin 2013). PCRP is designated as Open Space Park (OS-P) by the Land Use Policy Map under the City of Orange General Plan. The surrounding areas include Low Medium Residential and Medium Density Residential to the north (LMDR and MDR, respectively); Low Density Residential (LDR), LMDR, and Open Space (OS) to the east; and LDR and OS to the west (City of Orange 2010). The County of Orange designates the PCRP area as Open Space (5), surrounded by Suburban Residential (1B), which is classified as 0.5 to 18 dwelling units (DU) per acre (County of Orange 2015a).

Additional plans for the area include the County of Orange NCCP/HCP and the Upper Peters Canyon Specific Plan. The area surrounding Peters Canyon Reservoir is designated as a HCCP/HCP Habitat Reserve and as an OS-P (Open Space Park) within the Irvine Ranch Land Reserve (City of Orange 2010).

a)	Would the project physically divide an established community?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

a) No Impact. The proposed Project involves development of a GDP and RMP to govern how the regional park is designed, operated, and maintained. The GDP and associated improvements would enhance existing park uses and would not physically divide an established community. In addition, the implementation of the RMP would provide long-term management plans for Peters

Canyon and increases public outreach in understanding and appreciation in environmental and cultural stewardship and education. No existing residential uses occur on the Project area, and implementation of the Project would not change the existing use of the Project area. Therefore, no impact would occur.

b)	Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

b) No Impact. The proposed Project would involve development of a GDP and RMP and associated improvements to the existing regional park. Implementation of the RMP would provide long-term management plans for PCRP to ensure park maintenance, preservation, and habitat restoration. The proposed Project would be compatible with the existing City and County zoning and General Plan designations. The proposed Project would not conflict with any land use plan, policy, or regulation; no impact would occur.

3.3.12 Mineral Resources

No mineral resources are designated or identified within the Project boundaries. Mineral resources adjacent to the park are limited to sand and gravel near the Santa Ana River and Santiago Creek in the City of Orange. About 20 percent of the aggregate resources in Orange County have undergone land use changes that preclude mining (e.g., housing and industrial parks); however, resources have been identified at the Santa Ana River, Santiago Creek, San Juan Creek, Arroyo Trabuco, and other areas (County of Orange 2015b).

a)	Would the project 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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

a) No Impact. As noted above, the Project area is not within a mineral resource area designation (City of Orange 2010; County of Orange 2015b). The proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. No mineral resource extraction would occur as part of the proposed Project. No impact would occur.

b)	Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan other land use plan?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

b) No Impact. See response to 3.3.12.a).

3.3.13 Noise

This section describes the existing noise setting and potential noise and vibration effects from Project implementation on the site and its surrounding area. Construction noise modeling was performed through use of the Roadway Construction Noise Model (RCNM) Version 1.1. The model output is provided in Appendix G along with the noise measurement printouts and a photo index of the noise measurements.

3.3.13.1 Environmental Setting

The Project area is located within the cities of Orange and Tustin and within County of Orange unincorporated land. Currently, the primary sources of noise within the study area, which is generally limited to the area that may be impacted by noise created on the Project area (1,000 feet or less), consist of vehicle noise on Canyon View Avenue, Newport Boulevard, Skylark Place, and Peters Canyon Road. In order to determine the existing noise levels, three short-term ambient noise measurements were taken in the vicinity of the Project area between 12:03 p.m. and 1:10 p.m. on Tuesday, July 4, 2017. The noise measurements were taken on a summer holiday in order to obtain the worst-case activity levels occurring at PCRP. The results of the noise level measurements are presented in Table 13, and the noise measurement printouts are provided in Appendix G.

Table 13: Existing Noise Level Measurements

Site Description	Start Time and Duration of Measurement	Primary Noise Sources	Noise Levels
Located 190 feet north of the Intersection of Peters Canyon Road and Silverado Terrace at the south end of the Project area.	12:03 p.m. (15:00)	bicycles on dirt trail, people talking, and vehicles on Peters Canyon Road	40.6 dBA L_{eq} 60.2 dBA L_{max}
Located on the east side of the existing Peters Canyon Regional Park parking area off Canyon View Avenue, approximately 50 feet southwest of existing pay station.	12:32 a.m. (15:00)	Vehicles and people in parking lot, aircraft overflight, and vehicles on Canyon View Avenue	51.7 dBA L_{eq} 69.7 dBA L_{max}
Located approximately 140 feet southeast of the centerline of Newport Boulevard and 200 feet southwest of the centerline of Skylark Place on the west corner of Peters Canyon Regional Park.	12:54 p.m. (16:00)	Vehicles on Newport Boulevard and aircraft overflights	54.8 dBA L_{eq} 74.8 dBA L_{max}

Source: Larson-Davis Model 831 precision sound level meter programmed in “slow” mode to record noise levels in “A” weighted form.

3.3.13.2 City of Orange Noise Standards

For construction activities within the City of Orange, Section 8.24.050(E) of the Municipal Code has established a restriction of time when construction activities may occur of between the weekday hours of 8:00 p.m. and 7:00 a.m. or between the hours of 8:00 p.m. and 9:00 a.m. on Sundays and federal holidays.

For operational activities, within the City of Orange, Section 8.24.040(A) of the Municipal Code limits exterior noise impacts to the nearby residential uses to 55 A-weighted decibels (dBA) between 7:00 a.m.

and 10:00 p.m. and to 50 dBA between 10:00 p.m. and 7:00 a.m. Section 8.24.050(C) of the Municipal Code exempts all activities conducted on any public park from the noise standards detailed in Section 8.24.040(A). Since the proposed Project would consist of improvements to a park for OC Parks, all operational noise would be exempt from the noise standards in the Municipal Code.

3.3.13.3 City of Tustin Noise Standards

For construction activities within the City of Tustin, Section 4617(e) of the Municipal Code has established a restriction of time when construction activities may occur of between the weekday hours of 6:00 p.m. and 7:00 a.m. or between the hours of 5:00 p.m. and 9:00 a.m. on Saturdays, or any time on Sundays and federal holidays.

For operational activities, within the City of Tustin, Section 4614(a) of the Municipal Code limits exterior noise impacts to the nearby residential uses to 55 dBA between 7:00 a.m. and 10:00 p.m. and to 50 dBA between 10:00 p.m. and 7:00 a.m. Section 4617(c) of the Municipal Code exempts all activities conducted on any public park from the noise standards detailed in Section 4614(a). Since the proposed Project would consist of improvements to a park for OC Parks, all operational noise would be exempt from the noise standards in the Municipal Code.

3.3.13.4 County of Orange Noise Standards

For construction activities within unincorporated Orange County, Section 4-6-7(e) of the Municipal Code has established a restriction of time when construction activities may occur of between the weekday hours of 8:00 p.m. and 7:00 a.m. or at any time on Sundays and federal holidays.

For operational activities, within unincorporated Orange County, Section 4-6-5 of the Municipal Code limits exterior noise impacts to the nearby residential uses to 55 dBA between 7:00 a.m. and 10:00 p.m. and to 50 dBA between 10:00 p.m. and 7:00 a.m. Section 4-6-7(c) of the Municipal Code exempts all activities conducted on any public park from the noise standards detailed in Section 4-6-5. Since the proposed Project would consist of developing a park for OC Parks, all operational noise would be exempt from the noise standards in the Municipal Code.

a)	Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. The proposed Project involves preparation of a GDP and RMP to guide future development of park facilities which include development of improved trails and trailheads, improved parking areas, a new park office and maintenance facility, enhanced signage, and new restrooms, rest areas, boardwalks, and a dam overlook within the greater PCRP site. Both construction and operation of the proposed Project would have the potential to generate noise in excess of standards and have been analyzed separately, as follows.

Construction-Related Noise

Construction activities for the proposed Project would take place over time based on priority and available funding (OC Parks and/or grant funding). Improvement projects would be budgeted in both the OC Parks Five-year Strategic Financial Plan and the Capital Improvement Projects budgets that are approved by the Board of Supervisors on an annual basis. The Project priority is as follows: Lower Peters Canyon Trailheads and Restroom, Skylark Place Staging Area, Canyon View Staging Area, Big Red Rest Area, and Historic Reservoir Viewing Areas. This analysis has anticipated construction of the first priority Project to begin in summer 2019, with all Projects expected to be completed by winter 2022, assuming funding becomes available. Construction activities for the proposed Project would not include any high noise producing activities such as pile driving or the use of explosives. The nearest existing sensitive receptors are single-family homes located adjacent to the Project area.

Section 8.24.050(E) of the City of Orange Municipal Code and Section 4-6-7(e) of the Orange County Coded Ordinances exempts construction noise that occurs between 7:00 a.m. and 8:00 p.m. Monday through Friday and between 9:00 a.m. and 8:00 p.m. on Sundays and federal holidays. Section 4617 of the City of Tustin Municipal Code exempts construction noise that occurs between 7:00 a.m. and 6:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturdays, not including federal holidays. Construction activities for the proposed Project would adhere to the most stringent time restrictions provided by the three jurisdictions.

Therefore, through adherence to the construction-related noise standards provided in the relevant Noise Ordinances, and due to the short-term and intermittent nature of construction, where construction activities are not expected to operate continuously near any nearby sensitive receptors, the proposed Project would not generate noise levels in excess of standards.

Operation-Related Noise

The proposed Project would result in the operation of new and improved hiking trails and staging areas, a new park office and maintenance facility, new restrooms, and shade structures and rest areas on approximately 11 acres within the greater PCRP site. The operation of the proposed Project may create an increase of on site noise levels from the improved and new parking areas, hiking trails, shade structures, and rest areas. The operational noise sources may exceed the noise standards from the Cities of Orange and Tustin and the County of Orange at the nearby homes.

Section 8.24.040(A) of the City of Orange Municipal Code, Section 4-6-5 of the Orange County Codified Ordinances, and Section 4614 of the City of Tustin Municipal Code limits the proposed Project's on site noise sources to 55 dBA L_{eq} between 7:00 a.m. and 10:00 p.m. and 50 dBA L_{eq} between 10:00 p.m. and 7:00 a.m. at the exterior of the nearby residential uses. All three jurisdictions exempt noise created in public parks from these noise standards; however, in order to provide a conservative analysis, the proposed Project's operational noise sources were compared to the Municipal Codes noise standards of 55 dBA L_{eq} between 7:00 a.m. and 10:00 p.m. and 50 dBA L_{eq} between 10:00 p.m. and 7:00 a.m.

Table 14 shows the anticipated noise levels from the proposed expanded Canyon View parking area, the new Skylark parking area, and the new and realigned trails. The proposed Project may also generate noise from the proposed restrooms and rest and picnic areas. However, the nearest

picnic area is located approximately 600 feet from the nearest home, and the nearest restroom is located approximately 250 feet from the nearest home. Therefore, no noise impacts are anticipated from the proposed restrooms and picnic areas to the nearby homes.

Table 14: Operational On-site Noise Impacts to the Nearest Homes

Noise Source	Reference Noise Measurement		Project Impacts at Nearest Homes	
	Distance of Receptor to Source (feet)	Noise Level (dBA L_{eq})	Distance of Receptor to Source (feet)	Noise Level[1] (dBA L_{eq})
Expanded Canyon View parking area	50	51.7	130	43
New Skylark parking area	50	51.7	110	45
New and realigned trails	20	40.6	80	29
City and County Standards at Nearby Homes (daytime/nighttime)[2]				55/50
Exceed City and County Standards (daytime/nighttime)?				No/No

Notes:
[1] Project noise impacts calculated based on typical noise propagation rates of 6 dB per doubling of distance.
[2] Daytime is defined as 7:00 a.m. to 10:00 p.m., and Nighttime is defined as 10:00 p.m. to 7:00 a.m.

The data provided in Table 14 shows that anticipated on-site noise levels from the proposed expanded Canyon View parking area, New Skylark parking area, and new and realigned trails would be within the exterior daytime and nighttime noise standards provided by the Cities of Orange and Tustin and County of Orange at the homes nearest to the Project area. As such, operations-related on-site noise impacts to the nearby homes would be less than significant for the proposed Project.

Accordingly, the proposed Project would not expose persons to noise levels in excess of standards established by the Cities of Orange and Tustin and the County of Orange.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☒	☐

b) Less than Significant Impact. The proposed Project would include development of improved trials and trailheads, improved parking areas, a new park office and maintenance facility, enhanced signage, and new restrooms, rest areas, boardwalks and a dam overlook within the greater PCRP site. Both construction and operation of the proposed Project would have the potential to generate groundborne vibration in excess of standards and have been analyzed separately below.

Construction-Related Vibration

Construction activities for the proposed Project would take place over time based on priority and available funding (OC Parks and/or grant funding). The Project priority is as follows: Lower Peters

Canyon Trailheads and Restroom, Skylark Place Staging Area, Canyon View Staging Area, Big Red Rest Area, and Historic Reservoir Viewing Areas. Construction activities are anticipated to occur as near as 40 feet from existing residential structures.

Section 17.20.250 of the City of Orange Municipal Code and Section 7-9-95.7 of the Orange County Codified Ordinances prohibits activities that generate ground vibration that is not tactually perceptible at any point for any duration or intermittent periods of time, on any boundary line of the lot on which the use is located. Since neither the City nor the County provide a quantifiable vibration level, California Department of Transportation (Caltrans) guidance has been utilized which defines the threshold of perception from transient sources at 0.25 inch per second peak particle velocity (PPV). Table 15 illustrates the typical PPV produced from some common construction equipment. The most vibration-causing piece of equipment that may be used during construction would be a large bulldozer.

Table 15: Typical Construction Equipment Vibration Emissions

Equipment	Peak Particle Velocity in inches per second at 25 feet	Vibration Level (L_v) at 25 feet
Pile Driver (impact)	0.644	104
Pile Driver (sonic)	0.170	93
Clam Shovel Drop	0.202	94
Hydromill - in soil - in rock	 0.008 0.017	 66 75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drill	0.089	87
Loaded truck (off road)	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: Federal Transit Administration 2006.

The primary source of vibration during construction would be from the operation of a bulldozer. As shown in Table 15, a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest off-site residential structure (40 feet from construction activities) would be 0.05 inch per second PPV. The vibration level at the nearest off-site residential structure would be within the 0.25-inch-per-second PPV threshold detailed above. As such, construction-related vibration impacts to the nearby homes would be less than significant for the proposed Project.

Operation-Related Vibration

The proposed Project would result in the operation of new and improved hiking trails and parking areas, a new park office and maintenance facility, new restrooms, and shade structures and rest areas within the greater PCRP site. The operation of the proposed Project is not anticipated to

include operation of any vibration sources. Therefore, the proposed Project is not anticipated to create any on site vibration which may be felt at the nearby homes.

Accordingly, the proposed Project would not expose persons to vibration levels in excess of standards established by the Cities of Orange and Tustin and the County of Orange. Impacts would be less than significant.

c)	For a project located within the vicinity or a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. The proposed Project area is not located within 2 miles of a public airport. The nearest public airport is John Wayne Airport, which is located approximately 9 miles southwest of the proposed Project area. The Project area is located outside the 65-dBA community noise equivalent level (CNEL) noise contours of John Wayne Airport. No private airstrips are in the vicinity of the Project area. The proposed Project would not expose people residing or working in the surrounding area to excessive levels of airstrip-generated noise. The proposed Project would not expose people residing or working in the surrounding area to excessive levels of airport-generated noise. As such, airport noise impacts to the proposed Project would be less than significant.

3.3.14 Population and Housing

PCRP is designated as an Open Space Park (OS-P) with recreational uses include hiking, running, mountain biking, horseback riding, picnicking, and bird watching. Bordering the park are various residential units, schools, and public service facilities; however, no housing exists on the park itself.

a)	Would the project induce substantial unplanned 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)?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

a) No Impact. The proposed Project does not provide housing. While the proposed Project would involve the improvement of a recreational facility, this improvement would only enhance existing use of the park and would not induce unplanned population growth directly or indirectly. The improvement would support the existing population. No impact would occur.

b)	Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

b) No Impact. The proposed Project consists of the development of a GDP and RMP and associated improvements to an existing public regional park and, therefore, would not displace any existing housing units, necessitating the construction of replacement housing elsewhere. The proposed Project would not displace any people, necessitating the construction of replacement housing elsewhere. No impact would occur.

3.3.15 Public Services

Public safety services and facilities are located in the vicinity of the Project area. The Orange City Fire Department Station 7 is approximately 2,600 feet north and Orange County Fire Authority is 1 mile southwest of the Project area. The Tustin Police Department, Orange County Sheriff's Department, and Highway Patrol are located 4.1 miles, 5.0 miles, and 4.3 miles south-southwest from the park, respectively. HealthBridge Children's Hospital is 4 miles west of the park, and Hoag Urgent Care Tustin is 4 miles south of the Project area (Google 2016).

a)	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any or the public services: i) Fire protection?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

a) i) No Impact. The proposed Project would involve the development of a GDP and RMP and associated improvements to an existing public park. The improvements would only enhance existing use of the park and would not induce population growth directly or indirectly. The improvements would support the existing population and regional park usage. The Project would not increase the demand for fire protection facilities. Furthermore, the Project would not induce growth requiring the extension of existing services or creation of new services. No impact would occur.

ii) Police protection?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

a) ii) No Impact. The proposed Project would involve the development of a GDP and RMP and associated improvements to an existing public park. The improvements would only enhance existing use of the park and would not induce population growth directly or indirectly. The improvements would support the existing population and regional park usage. The Project would not increase the demand for police protection facilities. Furthermore, the Project would not induce growth requiring the extension of existing services or creation of new services. No impact would occur.

iii) Schools?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

a) iii) No Impact. The proposed Project would involve the development of a GDP and RMP and associated improvements to an existing public park. The improvements would only enhance existing use of the park and would not induce population growth directly or indirectly. The improvements would support the existing population and regional park usage. The Project would not increase the demand for school facilities. Furthermore, the Project would not induce growth requiring the extension of existing services or creation of new services. No impact would occur.

iv) Parks?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☒	☐

a) iv) Less than Significant Impact. The proposed Project is the development of a GDP and RMP and associated improvements to the existing regional park and is intended to provide improved recreational facilities to the existing population. During the short construction period, park usage may shift to other area parks; however, this impact would be short-term in duration. Impacts would be less than significant.

v) Other public facilities?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

a) v) No Impact. The proposed Project would involve the development of a GDP and RMP and associated improvements to an existing public park. The improvements would only enhance existing use of the park and would not induce population growth directly or indirectly. The

improvements would support the existing population and regional park usage. The Project would not increase the demand for other public facilities. Furthermore, the Project would not induce growth requiring the extension of existing services or creation of new services. No impact would occur.

3.3.16 Recreation

PCRP is an existing recreation area that has traditional park element activities including hiking, running, mountain biking, horseback riding, picnicking, and bird watching. General hours of the park are from 7:00 a.m. to sunset and can vary by season. The park has a variety of trails such as the East Ridge View Trail, Peters Canyon Trail, Lakeview Trail (proposed to be renamed North Loop Trail), and Peters Canyon Creek Trail (OC Parks 2016).

a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. The proposed Project is the development of a GDP and RMP and is intended to provide improved recreational facilities to the existing population. During the short construction periods associated with facilities improvements, park usage may shift to other area parks. Therefore, the proposed Project is not expected to contribute to the increased use of existing neighborhood and regional parks or other recreational facilities such as substantial physical deterioration of the facility. Impacts would be less than significant.

b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse effect on the environment?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. The proposed Project involves the development of a GDP and RMP for the regional park and improvement of an existing recreational facility. Improvements and new developments include improved parking area, new park office and maintenance facility, enhanced picnic areas and signage, new restrooms and rest areas in the central area and southern areas of the park, a new boardwalk and dam overlook for historic reservoir viewing, a new overflow parking area and trailhead in the northwest portion of the park, and approximately two miles of new trails and approximately one mile of realigned trails. While the proposed Project involves expansion and development of trails and park amenities, the proposed improvements do not involve significant expansion of facilities that would result in adverse effects on the environment. In addition, implementation of the RMP would ensure maintenance and preservation of the park's natural resources. Any impacts associated with the proposed Project have been reduced to less than significant levels with the implementation of mitigation measures described previously in this document.

3.3.17 Transportation

Existing roadways that surround the Project area include Canyon View Avenue, Skylark Place, Jamboree Road, and South Newport Boulevard. Under the General Plan, a Primary Arterial roadway is located north of the park along Canyon View Avenue and east of the park along Jamboree Road. Existing recreational trails and bikeways (Class II bike lanes for both directions exist on Newport Boulevard south of Skylark Place) are located within the Project area (City of Orange 2010). The nearest access to public transportation by bus is located half a mile north of the park on Chapman Avenue by Santiago Canyon College (Google Maps 2016).

A Traffic Impact Study was prepared by Lin Consulting on June 2017. The traffic impact study identifies Project traffic volumes at the intersections described below.

Lin Consulting performed a Level of Service (LOS) analysis during the weekday peak hour periods and Saturday peak park use hour, performed a 1-hour peak hour queue analysis and delay estimate at the entrance to PCRP, determined traffic generation forecast and project trip generation and distribution, and determined the impact of the Project plus cumulative developments. This traffic impact study analyzes the study area for the following scenarios:

(1) Existing Traffic Conditions (Existing Year 2016)

(2) Existing + Ambient Growth Traffic Conditions (Future Year 2035 No Project)

(3) Existing + Ambient Growth + Project Traffic Conditions (Future Year 2035 + Project)

3.3.17.1 Existing Conditions (Year 2016)

Existing Roadway System

PCRP is bounded by Canyon View Avenue to the north; Jamboree Road to the east; Peters Canyon Road to the south; and Skylark Place, Newport Boulevard, and residential units to the west. Major roadways in close proximity to the Project area include Skylark Place/White Oak Ridge, Newport Boulevard, and Canyon View Avenue.

Skylark Place / White Oak Ridge is a north-south local roadway located on the west side of PCRP. It has one lane in each direction separated by striping and traverses residential units. The posted speed limit on this roadway is 35 miles per hour (mph), and on-street parking is unavailable within the vicinity of the Project area.

Newport Boulevard is a north-south arterial located west of PCRP. It has two lanes in each direction separated by a landscaped median. The posted speed limit on this roadway ranges from 40 to 45 mph, and on-street parking is unavailable within the vicinity of the Project area. Class II bike lanes for both directions exist on Newport Boulevard south of Skylark Place.

Canyon View Avenue is an east-west arterial located north of PCRP. It has two lanes in each direction separated by striping. The posted speed limit on this roadway ranges from 40 to 50 mph, and on-street parking is unavailable within the vicinity of the Project area.

Pursuant to the agreement with the County of Orange staff, the study analyzed these study intersections:

(1) Skylark Place / White Oak Ridge and Canyon View Avenue

(2) Skylark Place and Presidio Way

(3) Peters Canyon Park Entrance / Old Camp Road and Canyon View Avenue

(4) Newport Boulevard and Canyon View Avenue

(5) Newport Boulevard and Skylark Place

These study intersections and their existing lane geometry are shown on Figure 3 and Figure 4 of the study (Appendix H).

Skylark Place / White Oak Ridge and Canyon View Avenue is a signalized intersection with permitted left turns for all movements. Skylark Place / White Oak Ridge has one left turn, one through, and one right turn lane on both the northbound and southbound movements; Canyon View Avenue has one left turn, one through, and one through-right lane on both the eastbound and westbound movements.

Skylark Place and Presidio Way is an unsignalized T-intersection with a stop control on Presidio Way. Presidio Way has one lane on the southbound movement; Skylark Place has one left turn and one through lane on the eastbound movement and one through and one through-right turn lane on the westbound movement.

Peters Canyon Park Entrance / Old Camp Road and Canyon View Avenue is an unsignalized intersection with stop controls on Peters Canyon Park Entrance and Old Camp Road. Peters Canyon Park Entrance / Old Camp Road has one lane on the northbound and southbound movements; Canyon View Avenue has one left turn, one through, and one through-right turn lane on both the eastbound and westbound movements.

Newport Boulevard and Canyon View Avenue is a signalized intersection with protected left turns in the northbound and southbound movements and permitted left turns in the eastbound and westbound movements. Newport Boulevard has one left turn, one through, and one through-right turn lane on both the northbound and southbound movements; Canyon View Avenue has one left turn, one through, and one through-right lane on both the eastbound and westbound movements.

Newport Boulevard and Skylark Place is an unsignalized intersection with stop controls on Skylark Place. Newport Boulevard has one left turn lane, one through, and one through-right turn lane on the northbound movement and one left turn, two through, and one right turn lane on the southbound movement. Skylark Place has one lane on the eastbound movement and one left turn, one through, and one right turn lane on the westbound movement.

3.3.17.2 Existing Turning Movement Counts

Turning movement counts were performed during weekday AM and PM peak hours on June 16, 2016 (Figure 5, Appendix H) and again during the Saturday peak hours (assumed to occur 11:00 a.m. through 1:00 p.m. and to be representative of the weekend demand) on July 9, 2016. In addition to turning movement counts, a queue count was performed for the main entrance to the park at Peters Canyon Park Entrance / Old Camp Road and Canyon View Avenue on July 9, 2016. This queue count was used to extrapolate a 95th percentile parking utilization of 153 vehicles. The network flow into and out of the main

entrance is based on this 95th percentile utilization rather than the June counts; this is reflected in the adjustments to the volumes used for the Saturday peak hour analysis (Figure 6, Appendix H).

Traffic and queue count data are both provided in the traffic study (Appendix H). These counts include pedestrian and bicycle counts. The parking utilization calculation is provided in the traffic study (Appendix H).

3.3.17.3 Existing Traffic Conditions Analysis

Existing traffic conditions at the study area intersections are depicted in Table 16. According to 2003 Intersection Capacity Utilization (ICU 2003) analysis, all the study area intersections operate at LOS "D" or better for weekday AM, weekday PM, and Saturday peak hours. The ICU 2003 analysis worksheets for existing traffic conditions are included in Appendix H of the study.

Table 16: Existing Traffic Conditions Analysis

Intersection	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
	LOS	ICU	LOS	ICU	LOS	ICU
1: Skylark Place / White Oak Ridge & Canyon View Avenue	A	40.1%	A	51.5%	A	34.9%
2: Skylark Place & Presidio Way	A	17.7%	A	28.0%	A	17.2%
3: Peters Canyon Park Entrance / Old Camp Road & Canyon View Avenue	A	28.0%	A	36.1%	A	34.8%
4: Newport Boulevard & Canyon View Road	B	59.2%	C	65.9%	A	52.3%
5: Newport Boulevard & Skylark Place	A	32.3%	A	39.2%	A	27.1%

ICU: Intersection Capacity Utilization
LOS: Level of Service

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☒	☐

a) Less than Significant Impact. The roadway and intersection analysis are conducted in accordance with the criteria established by the City of Orange and Orange County using the ICU 2003 methodology developed by Trafficware. The target operational criteria established by the City of Orange and the County of Orange would be as follows:

- Maintain LOS D where the existing condition operates at LOS D or better in unincorporated areas, all streets, and arterials
- Maintain LOS C or better on Santiago Canyon Road (for uninterrupted segments greater than or equal to 3 miles)

- Maintain LOS E or better for Congestion Management Program (CMP) intersections

The ICU method sums up the amount of time required to serve all movements at saturation for a given cycle length and divides by that reference cycle length. This method is similar to taking the sum of critical volume to saturation (v/s) flow ratios yet allows minimum timings to be considered. Table 17 shows classification of ICU 2003 LOS based on the utilization capacity of the signalized intersection.

Table 17: Level of Service (LOS) by Intersection Capacity Utilization (ICU)

Level of Service (LOS)	Intersection Capacity Utilization (ICU)
A	≤ 55%
B	> 55% – 64%
C	> 64% – 73%
D	> 73% – 82%
E	> 82% – 91%
F	> 91% – 100%
G	> 100% – 109%
H	> 109%

Source: ICU 2003

Per criteria provided by the City of Orange, an intersection is considered significantly impacted by the proposed Project based on the threshold shown in Table 18.

Table 18: Significant Impact Criteria for Signalized Intersections

Level of Service	Final V/C Ratio	Project Related Increase in V/C Ratio
E, F	> 0.900	Equal to or greater than 0.010

Source: City of Orange Traffic Impact Analysis Guidelines, 2007

Analysis for the existing intersections was conducted using Synchro 9 software by Trafficware Ltd. For the ICU methodology, a default saturation flow-rate of 1,700 vehicles per hour per lane was assigned to all through / turn lanes. This is consistent with the methodology provided by the Orange County CMP. The CMP is flexible with regard to special circumstances—as in the cases of right turn overlaps, de facto right turns, or shared through-turning movements (with high enough volumes). In these cases, the saturation flow-rate could increase or decrease depending on the situation (although none of these cases are applicable to the Project intersections). A default reference cycle length of 120 seconds for signalized intersections was used to proceed with the analysis.

CMP Analysis Methodology

The Orange County CMP establishes conditions for significant impact analysis of CMP locations: (1) where projects add 2,400 or more daily trips on CMP links, or (2) where projects add 1,600 or more daily trips on locations with direction access to CMP links. None of the study intersections

traverse CMP links or directly connect to a CMP link. Therefore, no analysis is required for compliance with the CMP.

Given the consistency of the proposed Project to the methodology provided by the CMP and the result of the study intersections not connected to the CMP link, the proposed Project is not expected to conflict with plans, ordinances, or policies that may affect traffic circulation. Existing recreational trails and bikeways (Existing Class II On Street) are located within the Project area (City of Orange 2010). The nearest access to public transportation by bus is located 0.5 mile north of the park on Chapman Avenue by Santiago Canyon College (Google Maps 2016). Therefore, the proposed Project would not interrupt access to mass transit or pedestrian and bicycle paths.

Future Traffic Conditions (Year 2035)

Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the Project area. Trip distribution is heavily influenced by the geographical location of the site; the location of residential, commercial, and recreational opportunities; and the proximity to the regional freeway system. Since no trips are generated from the Project, there is no distribution of trips—only a redistribution of existing traffic plus ambient growth to the overflow parking area.

Primary access to the proposed Project would be via the main entrance at Canyon View Avenue and Old Camp Road. Most trips exiting and entering PCRP would, at some point, utilize Canyon View Avenue—in addition to Newport Boulevard and Skylark Place / White Oak Ridge in order to gain access to Canyon View—and cross the intersection(s) of Skylark Place / White Oak Ridge and Canyon View Avenue, Skylark Place and Presidio Way, Peters Canyon Park Entrance / Old Camp Road and Canyon View Avenue, Newport Boulevard and Canyon View Avenue, and/or Newport Boulevard and Skylark Place. Part of the improvements at PCRP adds 25 additional parking spaces to the main parking lot located off Canyon View Avenue, bringing the total number of parking spaces from 130 to 155. Any surplus in trips wishing to enter the parking area at capacity would be redistributed to the newly added parking area located off Skylark Place in the northwest corner of the park.

Other Developments

Based on the location of the streets that may be affected by the Project, the study analyzed the impact of other developments which are approved by the County of Orange and City of Orange and are expected to be developed and occupied by year 2035. As of the date of this report, no projects are expected to be developed and/or occupied by year 2035. No consideration needs to be made with regard to the development of other projects.

Significant Traffic Impacts

Table 19 lists whether a study area intersection is significantly impacted by the proposed Project for the Future Year (2035), as the baseline year for comparison. All study area intersections operate at LOS D or better for both the weekday AM and PM and Saturday peak hours for both scenarios and are therefore not significantly impacted.

Table 19: Significant Impacts for Future Year 2035

Intersection	Time Period	Existing + Ambient Growth Traffic Conditions		Existing + Ambient Growth + Project Traffic Conditions		Significant Impact	
		ICU	LOS	ICU	LOS	ICU (v/c) Increase	Y/N
1: Skylark Place / White Oak Ridge & Canyon View Avenue	AM	A	40.6%	A	40.6%	0.0% (0.0)	N
	PM	A	52.5%	A	52.5%	0.0% (0.0)	N
	Saturday	A	35.4%	A	35.4%	0.0% (0.0)	N
2: Skylark Place & Presidio Way	AM	A	26.4%	A	26.4%	0.0% (0.0)	N
	PM	A	30.5%	A	30.5%	0.0% (0.0)	N
	Saturday	A	17.3%	A	19.3%	2.0% (0.02)	N
3: Peters Canyon Park Entrance / Old Camp Road & Canyon View Avenue	AM	A	32.8%	A	32.8%	0.0% (0.0)	N
	PM	A	39.6%	A	39.6%	0.0% (0.0)	N
	Saturday	A	37.1%	A	35.4%	-1.7% (-0.017)	N
4: Newport Boulevard & Canyon View Road	AM	B	61.1%	B	61.1%	0.0% (0.0)	N
	PM	C	70.3%	C	70.3%	0.0% (0.0)	N
	Saturday	A	52.3%	A	52.3%	0.0% (0.0)	N
5: Newport Boulevard & Skylark Place	AM	A	34.4%	A	34.4%	0.0% (0.0)	N
	PM	A	43.7%	A	43.7%	0.0% (0.0)	N
	Saturday	A	29.2%	A	29.2%	0.0% (0.0)	N

ICU: Intersection Capacity Utilization
LOS: Level of Service

All study area intersections operate at LOS D or better for both the weekday AM and PM and Saturday peak hours for both scenarios and are therefore not significantly impacted.

Alternative Transit

The proposed Project consists of park enhancements and improvements identified in the GDP and management strategies under the RMP, including strategies for public access and recreation management. The proposed Project would result in improving current plans and programs regarding pedestrian facilities. The proposed Project would not conflict with adopted policies, plans, or programs regarding public transit as it does not include Project activities that would significantly decrease the performance or safety of public facilities. Impacts would be less than significant.

b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. The proposed Project would be consistent with all city, State, and federal regulations. No signification impact would occur. As per the CEQA Guidelines section 15063.3, subdivision (b)(1), projects that reduce VMT such as pedestrian, bicycle, and transit projects, should have a less than significant impact. The proposed Project does not inhibit the use of any of the current roadways and would not have any negative impact on public transit or alternative transit. The proposed Project would expand or realign trails within the PCRP and provide new access points for pedestrians. As per the CEQA Guidelines section 15064.3, subdivision (b)(2), transportation projects which reduce VMT should be presumed to cause a less than significant transportation impact. The proposed Project would not have a significant impact on the current transportation levels. Although a minor increase in traffic would occur during construction, this impact would be short term and limited in nature. Less than significant impacts are expected.

c)	Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

c) No Impact. While the proposed Project identifies long-term modifications in the PCRP such as trailheads, staging areas, and parking, it does not include any roadway design features that would substantially increase hazards such as sharp curves or dangerous intersections. All parking lots required to accommodate additional parking associated with the proposed Project would be designed in compliance with all applicable design codes including requirements for emergency access. No impacts would occur.

d)	Would the project result in inadequate emergency access?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) Less than Significant Impact. The County's emergency operations center that is responsible for carrying out emergency preparedness and management is located at the Loma Ridge Emergency Operations Center at 2644 East Santiago Canyon Road in the community of Silverado. The Loma Ridge Operations Center is located approximately 2 miles southeast from PCRP.

Management strategies under the RMP for public access and recreation management that identify approaches to protect the park from fire include annual updates of the Emergency Access Plan. As a result, the proposed Project would not result in significant interruptions to emergency management or result in inadequate emergency access. Impacts would be less than significant.

3.3.18 Tribal Cultural Resources

Representatives from Rincon Consultants, Inc. (Rincon) contacted the NAHC for a Sacred Lands File search on April 12, 2016. This inquiry resulted in negative findings for Sacred Lands files and a list of Native American representatives to contact for additional information. On May 17, 2016, Rincon received a response from Ms. Rebecca Robles of UCPP. Ms. Robles indicated that although she did not know of any specific cultural resources within the Project area, the area in general is considered culturally sensitive. She requested to be notified of any archaeological resources that are discovered within the park and requested an opportunity to comment on the park's cultural resources management plan.

On March 24, 2017, the County sent letters to three Native American representatives that have requested formal notification from the County regarding projects in this area. Those notified include: Andrew Salas, Gabrieleno Band of Mission Indians – Kizh Nation; Joyce Stanfield Perry, Juaneno Band of Mission Indians; and Joseph Ontiveros – Soboba Band of Luiseno Indians. On April 3, 2017, Mr. Andrew Salas responded, requesting consultation on the Project. On April 26, 2017, the County held a telephone conference call with Mr. Salas and Mr. Teutimez with the Gabrieleno Band to discuss the Project. The County had Chris Uzo-Diribe (Planner IV), Jenny Stets-Stephano (Sr. Project Manager), and Laree Alonso (Planning Manager) in attendance. Chambers Group Archaeologist Rachael Nixon and Project Manager Lisa Louie were also in attendance as consultants to the County having received permission from the Gabrieleno Band. An overview of the Project's intended development and the results of the cultural resources study were discussed with Mr. Salas and Mr. Teutimez. Mr. Salas and Mr. Teutimez provided an overview of their oral historical account and knowledge of the Project area, specifically as it relates to Tribal Cultural Resources. They indicated the previously recorded prehistoric archaeological sites along the existing trails within the park and the limits of disturbance are Tribal Cultural Resources and the likelihood for subsurface tribal cultural resources is also possible in this area. As such, they requested Native American monitoring during ground-disturbing work within the Project area, with the exception of trail-related work (maintenance/improvements or the new trails). The comments and input from the tribe were considered by the County while drafting the mitigation measure.

a)	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

a) Less than Significant with Mitigation Incorporated. Chambers Group reviewed the information provided in the Cultural Resources report (Appendix E) prepared by Rincon (2016). The study identified a total of 11 archaeological resources within a 0.5-mile radius of the Project site, including seven previously recorded and four newly identified sites. These four sites include prehistoric tribal cultural materials. Based on this information, Chambers Group recommends the following: five of the archaeological resources identified (P-30-001200, -001359, -001548, PCRP-03, and PCRP-Iso-1) are recommended not eligible for CRHR under any criteria. Four previously recorded archaeological sites (P-30-000184, -000547, -00557, and -001153) have been previously mitigated to less than significant levels through testing and/or data recovery mitigation; or have been destroyed due to previous development in the area (Rincon 2016) and are no longer present and therefore not eligible for CRHR. Lastly, two newly recorded sites, PCRP-01 and PCRP-02, have not been formally evaluated for CRHR eligibility.

Based on the results of the original field survey, much of the Project area was covered by dense vegetation obscuring surface visibility; as such, additional cultural material may be below the vegetation. In November 2017, the Canyon Fire II burned the northern portion of PCRP surrounding the Upper Peters Canyon Reservoir and Dam The final burn area extends from Canyon View Avenue in the north, to the housing development and Brentwood Drive in the west, Jamboree Road in the east and approximately 33 percent of the northern portion of PCRP toward the south. Vegetation within the areas that were burned in the fire were destroyed with remnant dead trees and shrubs. Since the fire, volunteer restoration efforts occurred on November 19, 2017, and January 21, 2018, involving the planting of 800 1-gallon container plants of mixed coastal sage scrub and transitional species and approximately 70 acres of emerging target non-native species were treated within the burn area post-fire. The fire will have burned much of the dense vegetation in the northern portion of the PCRP, making the visibility less obscured for when work begins.

Also, due to the presence of known sites within the Project area and previous subsurface finds, a chance remains that additional tribal cultural resources are present below surface. An impact to these known sites would be considered significant; however, the following mitigation measure has been provided to ensure the Project does not cause a substantial adverse change in the significance of tribal cultural resources, as defined by PRC Section 21074.

Mitigation Measures:

TR-1 If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OCPW will implement the following measures.

All work will halt within a 50-foot radius of the discovery. OCPW will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the CRHR.

If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with the Tribe, will arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in CEQA for managing unanticipated discoveries and PRC Section 5024 have been met. .

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

b) Less than Significant with Mitigation Incorporated. See response to 3.3.18 a), above.

3.3.19 Utilities and Service Systems

Within the Project area, the County of Orange is partnered with the Municipal Water District of Orange County (MWDOC), Irvine Ranch Water District (IRWD), Golden State Water Company, Serrano Water District, and East Orange County Water District to meet the County's infrastructure needs. The PCRP GDP Structures Utility Services Feasibility Analysis is provided in Appendix I.

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

(a) Less than Significant Impact. No new water or wastewater treatment facilities or expansion of existing facilities would be required, since the addition of two new restroom facilities will not exceed the existing water and wastewater capacity of the park. Consistent with the existing restroom facilities located near Canyon View Avenue, a 4-inch sanitary sewer service was assumed for each of the proposed restroom facilities. A point of connection to the existing 24-inch sanitary sewer conveyance system has been identified as a probable point of connection within the adjacent creek (Stantec 2016). This conveyance system is serviced by IRWD utility agency. IRWD has provided a conditional will-serve letter for tapping into the 24-inch sanitary sewer

system to service the proposed restroom facilities. Therefore, the Project would not exceed wastewater treatment requirements or require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. While the proposed Project includes construction and expansion of parking spaces, the parking area would be designed with permeable surfaces, and the non-permeable surfaces of the new ranger office and restroom facilities would be minor in comparison to the entire park. For individual projects that require construction design, impacts will be analyzed at the time of proposed Project initiation. The proposed Project would not require additional or expanded stormwater conveyance facilities. Utilities such as electric power are already provided at the Project site, and no substantial expansion or relocation of facilities would occur. For individual projects that require construction design, impacts will be analyzed at the time of proposed Project initiation. Impacts would be less than significant.

b)	Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. The Project area is serviced by MWDOC, which provides water to the County, with a conveyance system serviced by IRWD utility agency. During Project construction, equipment needed would include watering trucks.

Consistent with the existing restroom facilities located near Canyon View Avenue, the proposed restroom facilities would require domestic water and sanitary sewer to service the sinks and toilets. Existing recycled water conveyance systems within the surrounding area are distribution systems, and IRWD does not allow connections to these systems. A 2-inch domestic water service was assumed for the proposed restroom facilities. All other domestic water services within the surrounding area are distribution systems, and IRWD does not allow connections to these distribution systems. A point of connection to the existing 16-inch domestic water conveyance system in adjacent Jamboree Road has been identified as a probable point of connection (Stantec 2016). Due to the location of the existing 16-inch domestic water line, improvements require trenching through upland sage gnatcatcher habitat and then across Jamboree Road and through the landscaped median. This conveyance system is serviced by IRWD utility agency. IRWD has provided a conditional will-serve letter for tapping into the 16-inch domestic water system to service the proposed restroom facilities. For individual projects that require construction design, impacts will be analyzed at the time of proposed Project initiation. Impacts will be less than significant.

c)	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?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. The proposed Project would involve an increase in the generation of wastewater due to the addition of restrooms within PCRP. Consistent with the existing restroom facilities located near Canyon View Avenue, a 4-inch sanitary sewer service was assumed for each of the proposed restroom facilities. A point of connection to the existing 24-inch sanitary sewer conveyance system has been identified as a probable point of connection within the adjacent creek (Stantec 2016). This conveyance system is serviced by IRWD. IRWD has provided a conditional will-serve letter for tapping into the 24-inch sanitary sewer system to service the proposed restroom facilities. A less than significant impact would occur.

d)	Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) Less than Significant Impact. The nearest landfill is Brea Olinda Landfill; however, the County would identify the applicable landfill for disposal of any solid waste with sufficient permitted capacity to accommodate the Project's solid waste disposal needs when the Final Design (PS&E) phase for a proposed structure is completed. Solid waste that may be collected during Project construction includes insulation, scrap metal, rocks, pipelines, graded asphalt; solid waste that may be collected during operation and maintenance includes existing waste, such as green waste (e.g., grass clippings, brush and tree trimmings), cardboard, plastics, and other general wastes. Proposed improvements vary in scope/complexity within the GDP, OC Waste & Recycling requires certain projects to divert a project-specific percent of nonhazardous materials from landfills. Solid waste management is already provided to PCRP, and the proposed Project would not increase the operation and maintenance volume of waste. Disposal areas would be coordinated with park staff, and on site activities would be located in convenient proximity to vehicle circulation routes. The capacity of the available landfills would be considered prior to construction and selection of the landfill. Solid waste from operation and maintenance would not be expected to differ from existing conditions. Impacts to landfill capacity would be less than significant.

e)	Would the project comply with federal, State and local management and reduction statutes and regulations related to solid waste?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

e) No Impact. The proposed Project would generate solid waste that would need to be disposed of at a landfill. However, the proposed Project would comply with federal, State, and local statutes and regulations related to solid waste. No impacts would occur.

3.3.20 Wildfire

a)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project impair an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

a) Less than Significant Impact. The proposed Project will not impair an adopted emergency response plan or evacuation plan. The proposed Project does not include any modifications of main roads that could be designated as emergency evacuation routes, nor does the Project include construction of facilities that would interfere with an emergency response or evacuation plan. Impacts would be less than significant.

b)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. The proposed Project is located adjacent to very high fire hazard severity zones (Cal Fire 2007, 2011). The area surrounding the park is listed as "Wildland Very High Fire Hazard Areas" and "Wildland High Fire Hazard Areas". During construction, BMPs would be used to prevent any sparks in the area when equipment that may cause sparks are utilized. The Project would not increase the amount of flammable vegetation within the Project area, and thus would not expose people or structures to a greater risk of fire-related damage, injury, or death in excess of existing levels. The RMP provides a list of fire management strategies. Impacts would be less than significant.

c)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. See response to 3.3.20 (b), above.

d)	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

d) Less than Significant Impact. The proposed Project site does not include structures that would be exposed to downstream flooding or landslides. The Project does not include activities which would change the drainage or slope of the Project site. Impacts would, therefore, be less than significant.

3.3.21 Mandatory Findings of Significance

a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

a) Less than Significant with Mitigation Incorporated. As described in Section 3.3.4, implementation of Mitigation Measures BIO-1 through BIO-4 would reduce impacts associated with biological

resources to a level less than significant. As described in Section 3.3.5, implementation of Mitigation Measures CR-1 through CR-2 would reduce impacts on cultural resources to a level less than significant should unanticipated resources be discovered. As described in Section 3.3.18, implementation of Mitigation Measure TR-1 would reduce impacts to Tribal Cultural Resources to a level less than significant should unanticipated resources be discovered.

b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

b) Less than Significant Impact. The County of Orange Public Works Capital Improvement Program (CIP) lists six projects that occur within the PCRP area. These projects are shown in Table 20. The Peters Canyon Bikeway Extension project is immediately adjacent on the east side of the Project area where the park is bordered by Jamboree Road. The bikeway extension project was formerly a part of the initial GDP project, but has since been separated to be a stand-alone project to be located on Jamboree Road and not within the park.

Table 20: Cumulative Projects in the Project Area

Project Name Fiscal Year Schedule	Project Limits	Project Description	Project Location in Relation to Project area
Peters Canyon Bikeway Extension FY 2019-2020	Along Eastside of Jamboree Road from Canyon View Avenue to Portola Parkway	The project will construct a Class I (paved, off-road) bikeway parallel to the east side of Jamboree Road beginning at the intersection of Jamboree Road and Tustin Ranch Road, then north to Canyon View Avenue at Jamboree Road, a distance of 2.7 miles.	Adjacent and to the east of the project area along Jamboree Road.
Cowan Heights Pavement Maintenance FY 2019-2020	Unincorporated Cowan Heights	Pavement preservation and/or rehabilitation	Adjacent and to the west of the project area
Lemon Heights Pavement Maintenance FY 2019-2020	Unincorporated Lemon Heights	Pavement preservation and/or rehabilitation	Adjacent and to the southwest of the project area
Santiago Canyon Road, Safety Roadway Improvements FY 2018-2019	SR-241 to North Live Oak Canyon Road	Provide high friction surface treatment and install flashing beacon systems, delineators, and reflectors. Increase bicycle	Approximately 1 mile east of the project area

Table 20: Cumulative Projects in the Project Area

Project Name Fiscal Year Schedule	Project Limits	Project Description	Project Location in Relation to Project area
		safety by striping a buffer zone. Install rumble strips and upgrade signage.	
Orange Park Acres Pavement Maintenance FY 2018-2019	Unincorporated Orange Park Acres	Pavement preservation and/or rehabilitation	Adjacent and to the west of the project area.
Participation in diversion projects on Peters Canyon Wash FY 2017-2018	Peters Canyon Wash and Santa Ana-Delhi Channel, along Peters Canyon Channel between Walnut Avenue and I-405	Stakeholders include City of Irvine, City of Tustin, County, OC Flood Control District, Irvine Ranch Water District (IRWD), and California Department of Transportation District 12 all of which are, under a cooperative agreement, contributing for design, construction of the system. IRWD is performing the actual maintenance, and stakeholders contribute funding for the activity.	Approximately 3.75 miles southwest of Lower Peters Canyon Reservoir

The evaluation of the proposed project has determined that the project would not result in any significant impacts on existing environmental resources with the implementation of mitigation measures identified in Sections 3.3.4, 3.3.5, and 3.3.18, which would reduce impacts associated with biological resources, cultural resources, and tribal cultural resources to a level less than significant. The remaining environmental categories did not identify any significant impacts. The identified CIP projects shown in Table 20 do not overlap the Project footprint and, therefore, would not contribute to cumulative impacts directly in the same physical space. One CIP project may occur in the same time frame as the proposed Project; however, it is located nearly 4 miles away and would not be expected to impact resources in a cumulative manner with the proposed Project. In addition, the CIP projects shown in Table 20 would not be expected to result in significant impacts. Therefore, the proposed Project would not result in any significant impacts that would contribute to cumulative impacts resulting from past, present, or future projects.

c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Potentially Significant Impact ☐	Less than Significant With Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

c) Less than Significant Impact. The proposed Project consists of park enhancements and improvements along with new construction of restrooms and boardwalks. The GDP proposes improvements of the park, while the RMP provides management strategies in protecting the resources of PCRP. The proposed Project would not result in substantial adverse effects on human

beings, as the Project focuses on improving park uses for the public. Impacts would be less than significant.

SECTION 4.0 – SUMMARY OF MITIGATION MEASURES

	Mitigation Measures	Lead Agency Department	Timing of Compliance	Action Taken	Verified	Date	Further Action
	BIOLOGICAL RESOURCES						
BIO-1:	Due to the abundance of suitable habitat throughout the survey area, focused rare plant surveys during the appropriate blooming periods are recommended to determine presence or absence of these special status plant species in the specific areas proposed for disturbance to their habitat types. If present, the areas containing these species should be marked in the field and avoided, as practicable.	OC Parks	Prior to Construction				
BIO-2:	To avoid the destruction of active nests and to protect the reproductive success of birds protected by the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, nesting bird surveys shall be performed twice per week during the three weeks prior to the scheduled vegetation clearance if vegetation clearance occurs during nesting season. If active nests are discovered, a suitable buffer (distance to be determined by the biologist or overriding agencies) should be established around active nests; and no construction within the buffer should be allowed until the biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest). No ground-disturbing activities shall occur within this buffer until the biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring from September through December.	OC Parks	Prior to Construction				
BIO-3:	Environmental awareness training will be provided to educate Project personnel and further minimize potential impacts. With the mitigation measures	OC Parks	Prior to Construction				

	Mitigation Measures	Lead Agency Department	Timing of Compliance	Action Taken	Verified	Date	Further Action
	implemented, impacts to wildlife would be considered less than significant.						
BIO-4:	Due to improvements to access the existing 16-inch domestic water line require trenching through upland sage gnatcatcher habitat, afield topographic survey would be required to accurately place the alignment with the least amount of impacts to the existing vegetation while staying out of existing utility easements. A qualified biologist will provide the appropriate recommendations for avoidance or minimization of impacts to the species during construction. If avoidance is not possible, a project-specific mitigation plan will include replanting with a non-irrigated seed mix and a monitoring period of three to five years, as required by the appropriate regulatory agencies.	OC Parks	Prior to Construction				
	CULTURAL RESOURCES						
CR-1:	A qualified archaeological monitor shall be present during all ground-disturbing activity associated with park improvements. In the event that subsurface archaeological materials are encountered, all ground-disturbing construction activities must be suspended within 100 feet of the find until the deposit is recorded and evaluated by a qualified archaeologist. Prior to ground disturbance within 100 feet of previously unevaluated or mitigated sites including, PCRP-01 and/or PCRP-02, and where avoidance is not possible, a qualified archaeologist will evaluate the sites shall be evaluated to determine if they meet the definition of a historical or unique archaeological resource under California Public Resources Code (PRC) Section 21084.1 and PRC Section 21083.2, respectively. If they do so qualify, the site deposits would constitute a substantial adverse change in their significance, which	OC Parks	Prior to Construction				

	Mitigation Measures	Lead Agency Department	Timing of Compliance	Action Taken	Verified	Date	Further Action
	would result in a significant impact under CEQA Guidelines Section 15064.5(b). As such, prior to the impact described above occurring, the County shall require that the archaeological site be avoided or mitigated to less than significant through data recovery and/or preservation, as recommended by the qualified archaeologist. Such mitigation may consist of additional research, documentation, excavation, analysis, and/or public outreach and interpretation.						
CR-2	If human remains are encountered, excavation or disturbance of the location must be halted in the vicinity of the find and the county coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be the most likely descendent (MLD) from the deceased Native American. The MLD makes recommendations regarding the treatment of the remains with appropriate dignity. In the event the MLD is unable to provide recommendations, the project owner shall reinter the remains in a location within the project area that will not be subject to further disturbance.	OC Parks	During Construction				
	GEOLOGY & SOIL						
GEO-1:	Prior to approval of final plans for specific facilities, as needed and where appropriate, a geotechnical study shall be completed by an engineering geologist or equivalent to evaluate seismic and non-seismic soil conditions, including but not limited to, expansion potential, subsidence, slope stability and corrosiveness. This report shall include evaluation of soil characteristics, identification of potential soil concerns and appropriate measures to address site specific soil conditions. Recommendations of the geotechnical	OC Parks	Prior to Construction				

	Mitigation Measures	Lead Agency Department	Timing of Compliance	Action Taken	Verified	Date	Further Action
	study shall be incorporated into the final design plans. The final geotechnical study shall be submitted to Orange County Parks for review and approval.						
PALEO-1:	Paleontological Mitigation and Monitoring Plan and Paleontological Monitoring: If potential impacts to paleontological resources are identified during the Project-level review, then the following measures shall be implemented:	OC Parks	Prior to Construction				
PALEO-1a:	Prior to any construction activity, a qualified paleontologist should prepare a Paleontological Mitigation and Monitoring Plan to be implemented prior to and during ground disturbance activity for the proposed Project. This plan should outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration, salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications.	OC Parks	Prior to Construction				
PALEO-1b:	Paleontological WEAP: Prior to the start of construction, construction personnel should be educated about the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.	OC Parks	Prior to Construction				
PALEO-1c:	Paleontological Monitoring: Any excavations or other ground-disturbing activity in areas mapped as high paleontological sensitivity (Figure 6) should be monitored on a full-time basis by a qualified paleontological monitor. Should no fossils be observed during the first 50 percent of excavations, paleontological monitoring could be reduced to weekly spot-checking, but only at the discretion of the qualified paleontologist.	OC Parks	During Construction				

	Mitigation Measures	Lead Agency Department	Timing of Compliance	Action Taken	Verified	Date	Further Action
	TRIBAL CULTURAL RESOURCES						
TR-1	If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OCPW will implement the following measures. All work will halt within a 50-foot radius of the discovery. OCPW will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the CRHR. If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with the Tribe, will arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in CEQA for managing unanticipated discoveries and PRC Section 5024 have been met.	OC Parks	During Construction				

SECTION 5.0 – REFERENCES

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APPENDIX A – AIR QUALITY ANALYSIS

APPENDIX B – PLANT AND WILDLIFE OBSERVED SPECIES LISTS

APPENDIX C – BIOLOGICAL RESOURCES REPORTS

APPENDIX D – PALEONTOLOGICAL RESOURCES REPORT

APPENDIX E – CULTURAL RESOURCES ASSESSMENT REPORT

APPENDIX F – GREENHOUSE GASES

APPENDIX G – NOISE

APPENDIX H – TRAFFIC IMPACT STUDY

APPENDIX I – UTILITIES SERVICES FEASIBILITY ANALYSIS