Draft Initial Study/Mitigated Negative Declaration
County of San Bernardino
Department of Public Works

Lake Gregory Regional Park
Sitewide Sediment Management Project

Lead Agency:

County of San Bernardino
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May 2024

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SECTION 1 - INTRODUCTION

This Initial Study has been prepared to identify and assess the anticipated environmental impacts of implementing the Lake Gregory Regional Park Sitewide Sediment Management Project (project). This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Pub. Res. Code, Section 21000 et seq.) and State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An Initial Study is generally used to determine which CEQA document is appropriate for a Project (Negative Declaration [ND], Mitigated Negative Declaration [MND], or Environmental Impact Report [EIR]).

1.1 PROJECT PURPOSE AND NEED

The purpose of the Lake Gregory Regional Park Sitewide Sediment Management Project is to address the current deterioration of the existing Lake Gregory public beach along the lake's swim area, reduce sediment loading in the lake, and to continue the routine operations and maintenance elements at the lake.

1.2 INITIAL STUDY ORGANIZATION

This Initial Study is organized as follows:

Introduction: Provides the regulatory context for the review along a brief summary of the CEQA process.

Project Information: Provides fundamental project information, such as the project description, project location and figures.

Lead Agency Determination: Identifies environmental factors potentially affected by the project and identifies the Lead Agency's determination based on the initial evaluation.

Mitigated Negative Declaration: Prepared when a determination can be made that no significant environmental effects will occur because revisions to the project have been made or mitigation measures will be implemented which will reduce all potentially significant impacts to less than significant levels.

Evaluating Environmental Impacts: Provides the parameters the District uses when determining level of impact.

CEQA Checklist: Provides an environmental checklist and accompanying analysis for responding to checklist questions.

References: Include a list of references and various resources utilized in preparing the analysis.

List of Preparers: The names of persons who prepared or participated in the Initial Study.

SECTION 2 - REGULATORY FRAMEWORK

The County of San Bernardino Department of Public Works, Special District, has identified that the Lake Gregory Regional Park Sitewide Sediment Management Project meets the CEQA Guidelines Section 15378 definition of a project. CEQA Guidelines Section 15378 defines a project as the following:

> *"Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.*

In accordance with CEQA (Public Resources Code Sections 21000-21189.91), this Initial Study has been prepared to evaluate potentially significant environmental impacts resulting from the construction improvements and routine operation and maintenance (O&M) plan associated with the Lake Gregory Regional Park Sitewide Sediment Management Project. In accordance with Section 15063 of the State CEQA Guidelines, this Initial Study is a preliminary analysis prepared by the County of San Bernardino Department of Public Works, Special Districts, as the CEQA Lead Agency to inform the Lead Agency decision makers, other affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed project.

Following a preliminary review of the proposed project, the County has determined that the project is subject to the guidelines and statutes of CEQA. As the Lead Agency, the County has reviewed the project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project will have a significant effect on the environment, with adherence to the mitigation measures identified in this Initial Study. This Initial Study/Mitigated Negative Declaration (IS/MND) addresses the direct, indirect, and cumulative environmental effects of the proposed Project. This IS/MND reflects the Lead Agency's independent judgement and analysis.

The environmental documentation outlined above, which is ultimately determined by the County in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and/or other discretionary approvals would be required.

The environmental documentation is subject to a public review period. During this review, comments on the document relative to environmental issues should be addressed to the County in writing. Following review of any written comments received, the County will consider these comments as a part of the project's environmental review and will include them with the Initial Study documentation for consideration by the County's decision-makers.

SECTION 3 - DETAILED PROJECT DESCRIPTION

The San Bernardino County Department of Public Works, Special Districts, on behalf of the San Bernardino County Regional Parks Department, proposes to construct improvements and maintain lake sediment levels within, and adjacent to Lake Gregory Regional Park in Crestline, California.

3.1 LOCATION

Lake Gregory Regional Park is located at 24171 Lake Drive in the unincorporated community of Crestline, within western San Bernardino County. Lake Gregory is bounded by Lake Drive to the north and northeast, San Moritz Drive to the southeast and south, and Lake Gregory Drive to the west. On the western shore of the lake is a u-shaped swimming beach that is the focus of the proposed beach improvements. The Library Basin is located to the west of the swimming area. The San Moritz Channel Basin is located near the south/eastern portion of the lake, adjacent the San Moritz Lodge. The Lake Gregory Dam is located in the northeast section of the lake with Camp Switzerland stockpile site to the north of the dam. In addition, there are approximately 34 inlets along the lake perimeter. Refer to *Figure 1, Regional Vicinity; Figure 2, Project Vicinity; Figure 3, Project Site*; and *Figure 4, Inlet Map,* and Appendix A*, Project Plans*.

The San Bernardino County Regional Parks Department operates Lake Gregory, via concession contract, as a regional park facility that offers year-round recreational opportunities to its visitors. Lake Gregory welcomes

approximately 100,000 patrons each year. Within the regional park, Lake Gregory physically encompasses approximately 84 water surface acres for swimming and water-based recreation.

Lake Gregory Regional Park, in operation since completion of the Lake Gregory Dam in 1938, offers a variety of recreational opportunities to its patrons, including fishing, boating, swimming, picnic facilities, a skate park, a dog park, and walking and fitness trails. The landscape surrounding and adjacent to Lake Gregory is nestled within the broader Oak Conifer Woodland vegetation community, but within the project area consists of both native and non-native vegetation types. Residential and commercial development exists adjacent to and around the lake.

Lake Gregory is a man-made lake that is naturally fed by storm runoff and snow melt from the east and west forks of Houston Creek. The normal (ordinary high) water level of the lake is set by the Lake Gregory Dam spillway at approximately 4,526 feet above mean sea level. The capacity of the lake is increased in the spring and summer months via the installation of flashboards on the lake spillway. The flashboards are removed in September of each year. Water levels at the lake may fluctuate by up to five feet below the spillway elevation depending on the season's precipitation. Regional Parks, via concession contract, is responsible for year-round operation and maintenance of the lake[1].

The proposed project includes both construction of improvements and routine maintenance elements. The construction of various improvements is necessary to improve recreational features and infrastructure supporting the Regional Park, primarily for water quality, recreational purposes, and public safety.

Construction of improvements includes the following actions:

- Improvement to the Swim Beach area including dredging, regrading, and placement of a permanent in-water barrier.
- Improvements to South Beach including dredging and regrading.
- Improvement to the majority of lake inlet locations along the lake perimeter with the addition of headwall structures and rip rap at some inlets.
-

Maintenance includes the following actions:

- On-going sediment management and removal of existing and future sediment accumulation.
- Routine maintenance of Lake Gregory, San Moritz Channel Basins, and Library Basin, including Lake Gregory beach grading, lake and basin structural repairs and debris/trash removal, inlet/outlet repairs, access road and appurtenant structure repairs, slope repairs, maintenance of lake water surface/water quality operational standards, vector control.

[1] Regional Parks operates Lake Gregory (via concession agreement). Special Districts is "contracted" to perform various tasks, including flashboard install/removal, basin(s) clean-out, etc.

3.2 PROJECT IMPROVEMENTS

Swim Beach and South Beach

The existing swim beach has deteriorated over time and has uneven beach area, large potholes, depressions, and steep slopes. The goal of the improvements to the swim beach area is to improve public safety including Americans with Disabilities Act (ADA) compliance and the waterpark attraction, which serve as a venue for day camps, sporting events, training, and education.

The proposed improvements in this area include flattening the beach area to a uniform 12:1 slope, and the installation of an in-water, beach stabilization wall to create a horizontal and vertical grade control marker defining the beach. The stabilization wall would be placed in-water and would be approximately 6-inches wide, spanning from the north to south shore. The beach stabilization wall will be constructed to create a horizontal and vertical grade control marker defining the beach. Future maintenance crews can use the top of beach stabilization wall as a vertical marker to restore grades when grooming the beach sand in the beach area. A portion of the lake invert in the vicinity of the West Beach will be graded to create a deepened area that will have a minimum 10ft of water depth at the typical lowest water level during the swim season. A portion of the South Beach would require dredging and regrading for shoreline stabilization. The lake dredging and grading that would occur as a part of the Sediment Management Plan (construction element) would result in a grading cut of approximately 69,428 cubic yards of sediment from the lake bottom. Construction of the proposed swim beach improvements will result in a grading fill of approximately 8,932 cubic yards of soil. Approximately 4,312 cubic yards of the fill will be imported sand to create a high contrast sand surface in the swim beach area to improve visitor safety. Approximately 59,496 cubic yards of sediment will be exported from the site to a designated stockpile area near Camp Switzerland.

Lake Inlets

There are numerous storm drain inlets/outlets[2] that exhibit significant erosion. In some areas erosion is extreme and has undermined the storm drain and created a potentially dangerous situation. These inlets range in size from 4-36 inches. At some inlet locations there are multiple inlet features (i.e., more than one pipe), refer to Table 1, *Lake Inlets*. These inlets function to maintain the water level at the lake. As part of the improvement project, a new headwall/weir box would be installed at approximately 19 inlet locations, and riprap pads would be installed at approximately 22 inlet locations. Overall, twenty-two (22) inlet locations would be reconstructed to remediate the erosion damage and install erosion control/protection measures that will limit future erosion damage. Riprap would be installed near all basin inlets to prevent erosion (approximately 375 square-foot footprint per site). The basin weir box outlet structure is intended to retain sediment in the basin and decrease the likelihood of it flowing through the basin into Lake Gregory.

Table 1
Lake Inlets

Inlet Location #	# of Features	Existing Features	Construction Improvements
001	4	Existing 18" CMP, Existing Double 24" CMP, Existing 18" CMP	(1) construct reinforced concrete cutoff wall, (2) sawcut existing CMP section, and install type 2 straight concrete headwall, (3) construct 10'x10' riprap energy dissipators

[2] The *Lake Gregory Operations and Maintenance Manual* (O&M Manual) references the terms inlet/outlet interchangeably.

Table 1
Lake Inlets, continued

Inlet Location #	# of Features	Existing Features	Construction Improvements
002	1	Existing 36" CMP	(1) construct 10'x10' riprap energy dissipator, (2) construct type-1 straight headwall with cutoff wall
003	1	Existing 24" CMP	(1) construct 10'x10' riprap energy dissipator, (2) construct type-1 straight headwall with cutoff wall
004	1	Existing 36" CMP	(1) sawcut CMP at pipe penetration point. install type 2 straight concrete headwall, (2) remove existing SD pipe, (3) construct rip-rap erosion control blanket, (4) construct protective railing, (5) sawcut CMP at pipe penetration point. install type 1 straight concrete headwall
005	1	Existing 24" CMP	(1) construct 10'x10' riprap energy dissipator, (2) construct type-1 straight headwall with cutoff wall
006	2	Existing 36" HDPE, Existing 12" PVC	(1) sawcut CMP at pipe penetration point. install type 2 straight concrete headwall, (2) construct 10'x10' riprap energy dissipator
007	2	Existing 24" HDPE, Existing 60" HDPE	No change
008	1	Existing 24" CMP	(1) construct 10'x10' riprap energy dissipator, (2) construct new 24" CMP, (3) construct reinforced concrete collar, (4) abandon existing SD pipe in place and backfill with CSLM, (5) construct type-1 straight headwall with cutoff wall, (6) construct protective railing
009a	3	Existing18" CMP, Existing 18" CMP, Existing 24" CMP.	(1) sawcut CMP at pipe penetration point. install type 2 straight concrete headwall, (2) construct rip-rap erosion control blanket, (3) remove and properly dispose of existing abandoned CMP SD.
009b	2	Existing 24" CPP Existing 12" PVC (Blue)	(1) remove existing SD pipe, (2) construct rip-rap erosion control blanket, (3) construct type-1 straight headwall with cutoff wall
010	1	Existing 24" CMP	(1) remove and properly dispose of existing abandoned CMP SD, (2) construct rip-rap erosion control blanket
011	2	Existing 48" CMP with concrete headwall, Existing 32" CMP with concrete headwall	No change
012	1	Existing 24" CMP	(1) construct 10'x10' riprap energy dissipator, (2) construct type-1 straight headwall with cutoff wall

Table 1
Lake Inlets, continued

Inlet Location #	# of Features	Existing Features	Construction Improvements
013	1	Existing 36" CMP	(1) sawcut CMP at pipe penetration point. install type 2 straight concrete headwall, (2) construct concrete collar at pipe penetration and extend pipe, (3) construct reinforced concrete collar, (4) abandon existing SD pipe in place to limits shown and backfill with CSLM, (5) construct rip-rap erosion control blanket, (6) construct protective railing
014	1	Existing 24" CPP	(1) construct 10'x10' riprap energy dissipator, (2) construct type-1 straight headwall with cutoff wall, (3) construct protective railing
015	1	Existing 15" Solid Metal Pipe	No change
016	1	Existing 12" PVC (Blue)	No change
017	1	Existing 18" CMP	No change
018	1	Existing 24" CMP	No change
019	1	Existing 24" CMP with 27' deep water gauge	No change
020	1	Existing 24" CMP	(1) construct rip-rap erosion control blanket, (2) construct type-1 straight headwall with cutoff wall
021	1	Existing 24" CMP	(1) construct rip-rap erosion control blanket, (2) construct type-1 straight headwall with cutoff wall
022	1	Existing 16" CMP	(1) construct rip-rap erosion control blanket, (2) construct type-1 straight headwall with cutoff wall
023	1	Existing 24" CMP	(1) cut back CMP to pipe penetration point. install type 1 straight concrete headwall, (2) construct 10'x10' riprap energy dissipator
024	1	Existing 12" PVC	(1) sawcut existing CMP section, and install type 2 straight concrete headwall, (2) construct 10'x10' riprap energy dissipator
025	0	Spillway for #026 & #027	No change
026	1	Existing 24" PVC	No change
027	1	Existing 24" PVC	No change
028	1	Existing 18" CMP	(1) cut back CMP to pipe penetration point. install type 1 straight concrete headwall, (2) sawcut existing CMP section, and install type 2 straight concrete headwall, (3) construct 10'x10' riprap energy dissipator
029	1	Existing 24" CMP	(1) cut back CMP to pipe penetration point. install type 1 straight concrete headwall, (2) construct 10'x10' riprap energy dissipator
030	1	Existing 12" Water Pipe	(1) construct 10'x10' riprap energy dissipator
031	1	Existing 12" CMP	No change
032	1	Existing 18" CMP	(1) construct 10'x10' riprap energy dissipator
033	3	Existing Triple 60" RCP	No change

Notes: CMP: Corrugated Metal Pipe; RCP: Reinforced concrete pipe; HDPE: High density polyethylene; PVC: Polyvinyl chloride; SD: storm drain; CLSM: Controlled low-strength material

San Moritz Channel Basins

Historically, sediment also accumulates at the southerly tip of the lake near Houston Creek South outlet to the lake adjacent to San Moritz Lodge and along the bank at the Houston Creek East outlet to the lake. The Houston Creek South outlet to the Lake Gregory located adjacent to the San Moritz Lodge was previously improved by constructing an in-line multi-cell debris basin and improving the existing access road by paving over it with approximate 14-foot-wide soil cement armoring along the northern and western perimeter of the existing baseball field for maintenance and vehicular access. The project will improve the site by re-stabilizing the inflow to the lake.

Project Improvements Construction

Construction for these improvements is anticipated to occur over three phases. Refer to Table 2, *Project Improvements* identified below.

Table 2
Project Improvements

Phase	Duration	Improvement Activity	Construction Equipment
Phase 1	4 weeks	Dewatering / clearing & grubbing	Pumps, sweepers/scrubbers, tractors/loaders/backhoes
Phase 2	12 weeks	Grading	Cement and mortar mixers, sweepers/scrubbers, tractors/loaders/backhoes, skid steer loaders, rubber-tired loaders, rollers, graders, excavators
Phase 3	6 weeks	Inlet / storm drain improvements	Cement and mortar mixers, sweepers/scrubbers, tractors/loaders/backhoes, off-highway tractor

All stockpile materials will be trucked to Camp Switzerland. Earthwork quantities are estimated at 26,300 cubic yards imported and exported, for a duration of 35 days. The project does not require use of pile driver or vibratory rollers.

3.3 OPERATIONAL AND MAINTENANCE ACTIVITIES

The project includes a maintenance element, the creation and implementation of the *2024 Lake Gregory Operations and Maintenance Manual Update* ("O&M Manual"). The O&M Manual is comprised of four sections: Resource Agency Permit Compliance[3], Debris Basin Maintenance, Lake Dredging, and General Lake Gregory Operations and Maintenance. It should be noted these elements are already occurring as routine operation of the lake.

The O&M Manual incorporates required maintenance activities for each distinct area of the lake including the debris basins and creek outlets (inlets) into the lake. Each area has unique physical characteristics that require ongoing operations and maintenance. Routine maintenance of the lake and adjacent basins is essential to improve water clarity and quality, enhance recreational features, and improve fishery habitat resources of the

[3] The lake and the adjacent riparian and wetland areas are within the jurisdiction of the California Department of Fish and Wildlife (CDFW), the Lahontan Regional Water Quality Control Board (RWQCB), and the U.S. Army Corps of Engineers (USACE) which require regulatory permits for the construction improvements and/or routine O&M activities and include the California Fish and Wildlife Code 1602 Lake and Streambed Alteration Agreement permit and Clean Water Act Sections 401 and 404 permits. The O&M Manual outlines guidelines for operation and maintenance of the lake and facilities, as they pertain to these permits.

lake. The O&M Manual includes year-round maintenance activities with seasonal restrictions on certain activities. The below routine O&M elements are summarized below in Table 3, *Operation and Maintenance Elements*.

Table 3
Operation and Maintenance Elements

Location	O&M Elements	Schedule / Frequency	Maintenance Equipment
Swim Beach	• Swim beach area lake bottom footfall and/or foot contact grooming	• As necessary, limited to the Park Non-operational season (September through March)	• Debris rakes, power boat pulled drag
Lake Inlets	• Regular visual inspection and removal of debris	• quarterly basis year-round and before each forecast storm	• Hand tools/hand
San Moritz Channel Basins	• Sediment Removal • Channel/Basin Lake Delta Dredging • Maintenance of Access Road and other Appurtenances	• Semi-annual basis, after large storm events (Sediment Removal) • Between Labor Day and March 1st (Dredging)	• Tracked excavator with minimum reach of 30-ft • Wheeled loader with 3-yard bucket • Three-axle dump truck
Library Basin	• Sediment Removal • Maintenance of Access Road and other Appurtenances • Storm Damage Repair and Restoration Projects	• Semi-annual basis, after large storm events (Sediment Removal)	• Tracked excavator with minimum reach of 30-ft • Wheeled or tracked mini-skid steer (Bobcat) • Three-axle 10-yd dump truck
Lake (Sitewide)	• Lake Ecology Control/Monitoring Program • Lake Water Surface Maintenance • Algae, Aquatic Plant and Turbidity Control • Insect Control • Erosion Control • Trash Collection	• Ranging from daily to annually	

Swim Beach

The swim beach area requires routine maintenance for grooming below the water line to a depth of six (6) feet based on current elevation. Grooming will be accomplished manually and mechanically. Workers with landscape and debris rakes will manually groom the lake bottom surface, removing foreign objects and decaying plant material to an approximate depth of three feet while ensuring a consistent, contoured, and safe foot contact area for swimmers. A power boat pulled drag will be used at low speed to accomplish the same tasks and minimize turbidity to an approximate depth of six (6) feet.

Lake Inlets

Regular maintenance is required at each lake outlet/inlet. The lake inlets require routine maintenance and repair to maintain and reset the water level at the lake. Sediment removal should be completed by either hand tools or mechanical means where local storm drains discharge to the lake at various locations around the lake perimeter. Access and topography vary by location; therefore, excavation methods would be site-specific to each of the outlet locations. Lake sediment removal at the stormdrain outlet locations is proposed to occur in October before the beginning of the traditional rainy season and in April at the end of the traditional rainy season, and as determined necessary by the park maintenance staff based upon quarterly inspections.

Debris Basin Maintenance

Regular maintenance is required at each lake outlet/inlet. The lake inlets require routine maintenance and repair to maintain and reset the water level at the lake. Sediment removal should be completed by either hand tools or mechanical means where local storm drains discharge to the lake at various locations around the lake perimeter. Access and topography vary by location; therefore, excavation methods would be site-specific to each of the outlet locations. Lake sediment removal at the stormdrain outlet locations is proposed to occur in October before the beginning of the traditional rainy season and in April at the end of the traditional rainy season, and as determined necessary by the park maintenance staff based upon quarterly inspections.

Library Basin. This debris basin is located west of Lake Gregory Drive adjacent to the Crestline Library (the Library Debris Basin). This basin is characterized as a wetland with ponded water from snow melt and urban runoff, vegetation, and sediment. The purpose of maintaining Library basin is to convey stream runoff from Houston Creek into Lake Gregory while ensuring water quality of the lake by capturing sediment and debris before flows enter the lake.

San Moritz Channel Basins. Located at southerly tip of the lake near Houston Creek South outlet to the lake adjacent to San Moritz Lodge and along the bank at the Houston Creek East outlet to the lake. This basin contains sediment with some vegetation. Annual maintenance dredging at San Moritz Lodge Channel Basin is estimated at approximately 2,337 cubic yards. The basin's accessibility and debris trapping efficiency are vital components to the Regional Parks' O&M Manual.

Below are the general functions of the two debris basins:

1. Sediment Control: Debris basins are designed to capture and retain sediment and debris carried by stormwater runoff. In the case of Lake Gregory, these basins help prevent excessive sediment from being washed into the lake. Sediment in the lake can degrade water quality, reduce water storage capacity, and negatively impact aquatic ecosystems.

2. Flood Control: Debris basins are often strategically located in areas prone to flash floods or heavy rainfall. They help reduce the risk of downstream flooding by trapping large debris and slowing down the flow of water. This function is critical for protecting communities and infrastructure downstream from the basin.

3. Erosion Control: By capturing sediment and debris, debris basins help prevent erosion in the surrounding areas. Erosion can lead to soil loss and the transport of pollutants into water bodies, which can harm aquatic life and water quality.

4. Water Quality Improvement: Debris basins aid in improving water quality in Lake Gregory and its tributaries. By intercepting pollutants, such as sediment, trash, and contaminants from urban areas, they prevent these substances from reaching the lake, thereby maintaining better water quality.

5. Reservoir Protection: In the context of Lake Gregory, a debris basin can help protect the lake's storage capacity and recreational quality. Without effective sediment control, the lake can gradually fill with sediment, reducing its depth and impairing its usability for boating, swimming, and other recreational activities.

Lake Dredging

Significant Lake dredging would not be required as a part of regular and normal lake maintenance activities. Dredging would only be conducted when sufficient sediment has accumulated in the lake to hinder normal lake

operations or reduced the capacity of the lake sufficiently to necessitate removal of the sediment. Dredging should be conducted between Labor Day though Memorial Day outside of the fish spawning season. The following activities should be conducted when lake dredging is deemed necessary by Park management/staff to ensure proper functioning of the lake. Lake dredging can be accomplished with either a boat mounted dredge or conventional construction equipment such as a wheeled-loader and excavator. The O&M Manual provides Best Management Practices (BMPs) during dredging, stockpiling, dewatering operations. Refer to Appendix I.

General O&M Activities

Maintenance of the lake entails a number of maintenance activities that are limited to the off-season, non-operational period only for health and safety reasons. While some maintenance activities are required to be conducted during the park operational season. The process of keeping the lake aesthetically and functionally optimal consists of a number of operational and maintenance procedures. The recommended lake water surface/operational standards include:

1. Floating Debris - Floating Debris (trash, leaves, fish etc.) should be held to a minimum by daily collection during routine patrol of the lake each working day.

2. Water Clarity - A Secchi Disk reading of two (2) or more feet should be maintained. Should the water turbidity be less than this standard, immediate steps should be taken to determine the cause and corrective action should be taken. Rapid changes in the readings are an indication of developing problems.

3. Dissolved Oxygen - A minimum of five (5) milligrams of oxygen per liter (mg/l) is desirable to protect the fishery and aquatic life in the lake. Should oxygen levels drop below the minimum as indicated by routine monthly monitoring, the cause should be determined, and corrective action initiated.

4. Algae - Some algae growth is essential in maintaining a balanced ecosystem in the lake. Objectionable growths of algae (those that interfere with the intended uses of the lake or cause odors and unsightly conditions) should be identified and controlled by appropriate action.

5. Aquatic Plant Growth - Aquatic plant growth is good for wildlife, the fishery, and the lake ecosystem. However, if aquatic plant growth interferes with any of the intended uses of the lake should be identified and controlled by appropriate action, physical removal and cutting rather than chemical controls.

6. Vector Control - A Lake vector identification and control program should be developed. An effective lake vector control program will control shoreline vectors such as rats, mice, gophers, squirrels, etc. In addition, flying inset vectors such as mosquitoes, midge flies, house flies, hornets, etc. need to be controlled as well. We recommend natural vector control methods through creating and supporting a balanced ecosystem where there is a balance of food sources, predators, and prey at each level of the food chain.

7. Waterfowl Population Control - Excess waterfowl can be devastating to lake water quality. Waterfowl produce more waste per unit body weight than bovine. An effective resident waterfowl population control program should be developed.

8. Water Level Control - The lake water level should be maintained within normal limits to preserve the shoreline conditions.

9. Rule Enforcement and Lake Patrol - All rules and regulations pertaining to the use of the lake and maintenance of the lake's quality should be enforced by routine patrol of the lake by authorized personnel. Violations of rules should be entered in a Lake Log and reported to the Lake Manager for action.

10. Log - A Lake log should be maintained by the lake management staff. The objective of a log is to establish a chronological record of all pertinent data relative to lake quality and rule violations, such as, but not limited to water clarity, plant growth, water level, water temperature, oxygen content, insect infestations, waterfowl population growth, rule infractions, trespass, and equipment malfunctions.

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LAKE GREGORY SITEWIDE SEDIMENT MANAGEMENT PROJECT

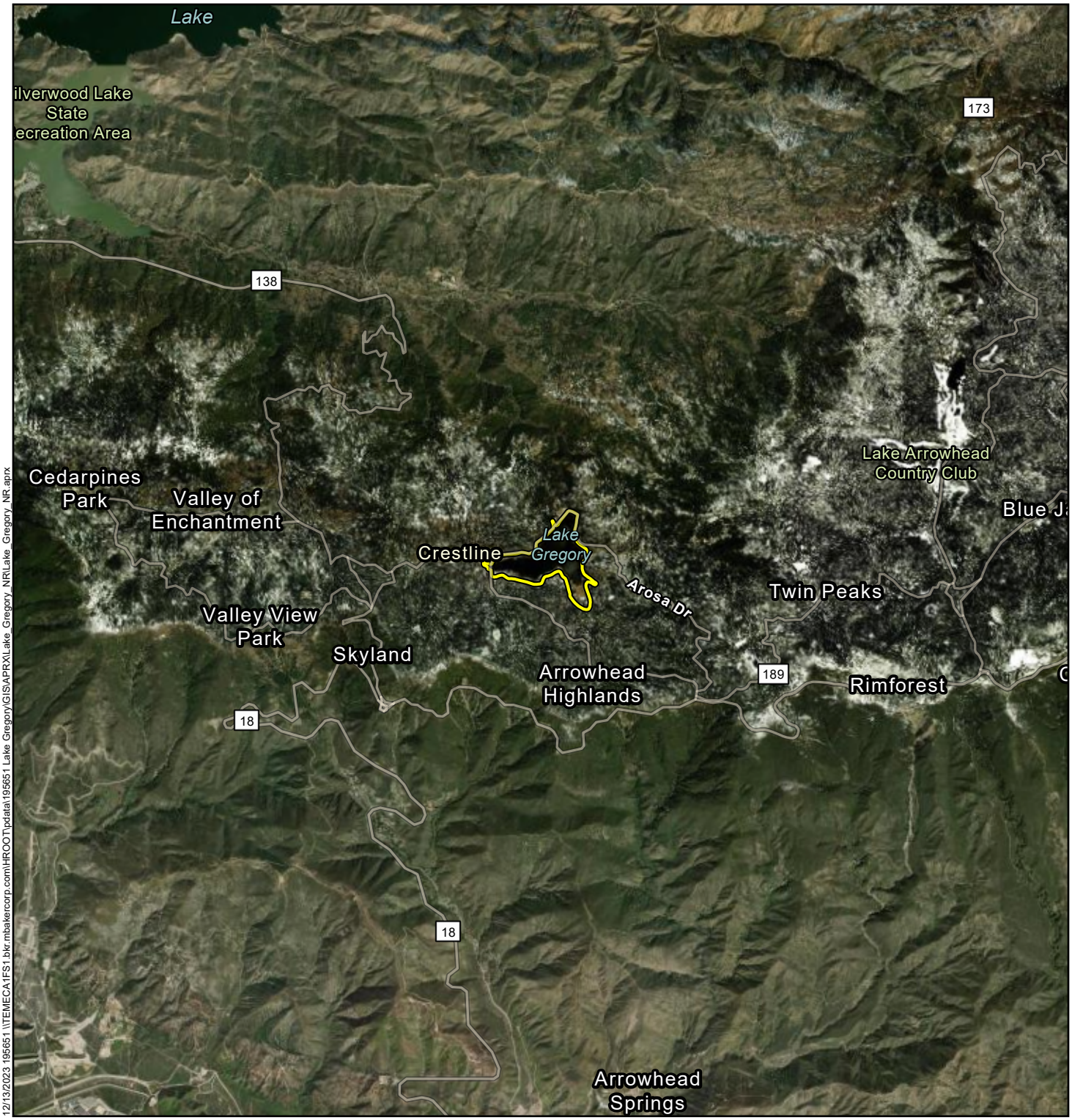
Michael Baker INTERNATIONAL

0 2.5 5 Miles

Source: ArcGIS Online, 2018

Regional Vicinity

Figure 1



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Legend

Project Site

LAKE GREGORY SITEWIDE SEDIMENT MANAGEMENT PROJECT

Michael Baker INTERNATIONAL

0 0.5 1 Miles

Source: Esri World Imagery Hybrid 2023

Project Vicinity

Figure 2

12/13/2023 195651 \\TEMECA1FS1.bkr.mbakercorp.com\HROOT\pdata\195651 Lake Gregory\GIS\APRX\Lake_Gregory_NR\Lake_Gregory_NR.aprx

Legend

Project Site

Reference Point

Michael Baker INTERNATIONAL

0 290 580 Feet

Source: Nearmap (09/2023)

LAKE GREGORY SITEWIDE SEDIMENT MANAGEMENT PROJECT

Project Site

Figure 3

INLET IDENTIFICATION NOTES

001 EXIST DOUBLE 24" CMP INLETS - WITH PROP HEADWALL AND RIPRAP PAD

002 EXIST 36" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

003 EXIST 24" CMP INLET

004 EXIST 36" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

005 EXIST 24" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

006 EXIST 12" PVC & 36"HDPE INLETS - WITH PROP HEADWALL AND RIPRAP PAD

007 EXIST 24" HDPE INLET

008 EXIST 24" CMP INLET - WITH PROP 30 LF 18" RCP, CONC COLLAR, HEADWALL AND RIPRAP PAD

009 EXIST18" CMP, 24" CMP, 24" CPP & 12" PVC (BLUE) INLETS - WITH PROP HEADWALL AND RIPRAP PADS

010 EXIST 24" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

011 EXIST 32" CMP & 48" CMP INLETS

012 EXIST 24" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

013 EXIST 36" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

014 EXIST 24" CPP INLET - WITH PROP 55 LF 24" RCP, CONC COLLAR, HEADWALL AND RIPRAP PAD

015 EXIST 15" SOLID METAL PIPE INLET

016 EXIST 12" PVC INLET (BLUE)

017 EXIST 18" CMP INLET

018 EXIST 24" CMP INLET

019 EXIST 24" CMP INLET WITH EXIST 27' DEEP WATER GAUGE

020 EXIST 24" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

021 EXIST 24" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

022 EXIST 16" CMP INLET - WITH PROP HEADWALL AND RIPRAP PAD

023 EXIST 24" CMP INLET

024 EXIST 12" PVC - WITH PROP HEADWALL AND RIPRAP PAD

026 EXIST 24" CMP INLET (TO BE FIELD VERIFIED)

027 EXIST 24" CMP INLET (TO BE FIELD VERIFIED)

028 EXIST 18" CMP INLET

029 EXIST 24" CMP INLET

030 EXIST 12" WAPER PIPE

031 EXIST 18" CMP INLET

032 EXIST 18" CMP INLET

033 EXIST TRIPLE 60" RCP INLETS

Michael Baker INTERNATIONAL

NOT TO SCALE

Source: J. Smith & T. Muli, September 8, 2023.

LAKE GREGORY SITEWIDE SEDIMENT MANAGEMENT PROJECT

Inlet Map

Figure 4

SECTION 4 - ENVIRONMENTAL CHECKLIST FORM

1.	**Project Title:**	Lake Gregory Regional Park Sitewide Sediment Management Project
2.	**Lead Agency Name**	County of San Bernardino Department of Public Works, Special Districts
	and Address:	825 East Third Street San Bernardino, California 92415-0835
3.	**Contact Person:**	Jon Aldana, Senior Project Manager / Phone: (909) 386-8801
4.	**Project Location:**	Lake Gregory is located in the unincorporated community of Crestline Forest in San Bernardino County The site is addressed 24171 Lake Drive. Assessor's Parcel Numbers: 033-720-207, 033-730-119, 034-003-201, 034-003-204, 033-720-209, 034-003-202, and 033-720-213. The site is approximately 72 miles east of the city of Los Angeles and 14 miles north of the city of San Bernardino.
	Topographic Quad (USGS 7.5"):	San Bernardino North, California
	Topographic Quad Coordinates:	Township 2 North, Range 4 West, Section 23, San Bernardino North quadrangle, 7.5 Minute Series topographic map.
	Site Access:	Lake Gregory West Beach and South Beach and Swim Park areas
5.	**General Plan/ Zoning Designation:**	Land Use: Open Space (OS) / Zoning: Crest Forest/Floodway (CF/FW)

6. Project Description Summary:

The purpose of the Lake Gregory Regional Park Sitewide Sediment Management Project is to address the current deterioration of the existing Lake Gregory public beach along the lake's swim area, reduce sediment loading in the lake, and to continue the routine operations and maintenance elements at the lake.

Refer to Section 3 for a complete description.

7. Environmental/Existing Site Conditions:

Lake Gregory Regional Park is a man-made lake located in the unincorporated community of Crestline in the San Bernardino Mountains. The lake has been in operation since 1938 with the construction of the completion of an earthen dam ("Lake Gregory Dam"). The lake has an approximate 84-acre surface area. The lake and surrounding shoreline are considered highly

disturbed and in an urbanized/developed setting. The landscape surrounding and adjacent to the lake consist of both native and non-native vegetation types.

8. Surrounding Land Uses/Setting:

Lake Gregory is surrounded by residential and commercial development. The most prominent land use designation is Single Family Residential with a minimum lot size of 14,000 square feet (RS-14M). The second most prominent land use designation within the plan area is Rural Living with a minimum lot size of five acres (RL-5). Most of the commercial land use districts are primarily concentrated near Lake Gregory in the Crestline community, zoned General Commercial (CG).

The Crest Forest plan area also contains Resource Conservation (RC), Special Development Residential (SD-RES), Multiple Residential (RM), Office Commercial (CO), Neighborhood Commercial (CN), General Commercial (CG), Service Commercial (CS), Community Industrial (CI), Institutional (IN) and Floodway (FW) land use districts.

9. Public Agency Approvals or Permits:

Federal:

- U.S. Army Corps of Engineers (USACE)

State:

- Lahontan Regional Water Quality Control Board, Region 6 (RWQCB)
- California Department of Fish and Wildlife (CDFW)

County:

- Approval of the Operations and Maintenance Plan
- Environmental compliance (CEQA)

Financing Approval or Participation Agreements: (i.e. Federal Funding? Grant Funding? JPA Agreements?:

- Yes, compliance with the American Rescue Plan Act

10. Have California Native American tribes traditionally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation?

On _March 20, 2024, the County sent project notification letters to the following California Native American tribes, which had previously submitted general consultation request letters pursuant to 21080.3.1(d) of the Public Resources Code:

- The Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN)
- Twentynine Palms Band of Mission Indians

Each recipient was provided a brief description of the proposed project a map of its location, the lead agency contact information, and a notification that the tribe had 30 days to request consultation. The 30-day response period concluded on April 21, 2024.

As a result of the initial notification letters, the YSMN requested consultation and upon conclusion of the consultation requested mitigation measures be applied to the project. With the application of the requested measures, impacts to Tribal Cultural Resources would be non-significant. No response was received from the Twentynine Palms Band of Mission Indians and the Lead Agency deemed the opportunity to consult period closed on April 22, 2024.

11. Lead Agency Discretionary Actions:

The County has the discretion to approve or not approve the proposed action at Lake Gregory.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact area requiring mitigation to be reduced to a level that is less than significant as indicated in the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☐	Geology and Soils	☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials
☒	Hydrology and Water Quality	☐	Land Use and Planning	☐	Mineral Resources
☐	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities and Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

LEAD AGENCY DETERMINATION

On the basis of this initial evaluation, the following finding is made:

	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	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.
	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.

Signature: Byanka Velasco, Division Manager **Date:**

1. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade an 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

(Check ☑ if project is located within a view-shed of any Scenic Route listed in the General Plan):

Environmental Setting

Lake Gregory is located within the Crest Forest Community. The Crest Forest Community Plan, adopted March 13, 2007, defines this area as approximately 18 square miles of unincorporated area located west of Lake Arrowhead and south of Lake Silverwood, and includes the communities of Crestline, Cedar Pines Park, Valley of Enchantment, and the Lake Gregory Village area. The Crest Forest Community Plan identifies the mountain character of the community as defined by the natural vegetation, natural topography, open space, and the predominance of low-density residential development. The goal of the Crest Forest Community Plan is to protect and preserve the mountain character of the area, maintain low-density residential and commercial development, and meet the needs of the residents and visitors. The scenic area around Lake Gregory is characterized by a small-town mountain community. Scenic vistas surrounding Lake Gregory include Lake Drive to the north and northeast, Lake Gregory Drive to the West, and San Moritz Drive to the south and southeast.

Scenic Routes and Highways

Scenic highways play an important role in the preservation and protection of environmental assets, and places restrictions on development, including grading, landscaping characteristics, and vegetation removal. Eleven roadways located within the plan area designated as scenic routes by San Bernardino County as identified in the Crest Forest Community Plan area, including Lake Drive, Lake Gregory Road, and San Moritz Road. San Bernardino County Policy Plan, Natural Resources, Map NR-4 Scenic Routes and Highways, dated 10/27/20**.** These scenic roads surround the perimeter of Lake Gregory providing access to visitors and residents and provide full view of the lake and its mountain scenery.

Impact Analysis

a) Have a substantial adverse effect on a scenic vista?

No Impact. County of San Bernardino General Plan, Section VI – Open Space Element (2007), Goal OS5, Policy 5.1, identifies criteria scenic resources as a roadway, vista point, or area that provides a view of undisturbed natural areas, includes a unique or unusual feature which comprises an important or dominant

portion of the viewshed, or offers a distant view which provides relief from less attractive views of nearby features such as mountain backdrops behind urban areas. Goal OS 5.3 recognizes the County desires to retain the scenic character of visually important roadways. The scenic routes listed in the General Plan Mountain Region surrounding the project site (Lake Gregory), include Lake Gregory Drive, San Moritz Drive, and Lake Drive from Knapps Cutoff northeast to Dart Canyon Road.

The project would not impact scenic views at Lake Gregory Drive, San Moritz Drive, and Lake Drive because the project does not include construction of new structures or improvements that would obstruct viewsheds of the mountain backdrops. The proposed construction improvements to the Swim Beach consist of construction of a permanent in-water barrier, improvements to the existing lake inlets, and re-construction and enhancement of the San Moritz Channel Basins. These improvements will be scheduled in three phases totaling approximately five months, and the construction improvements will occur in the lake area; therefore, will not obstruct view sheds of the mountain backdrops surrounding the lake. In addition, maintenance activities for the San Moritz Channel Basins will be scheduled during the off season.

The typical construction equipment includes pumps, sweepers/scrubbers, tractors/loaders/backhoes, cement and mortar mixers, graders, and excavators. The ongoing maintenance activities of the sediment basins includes vegetation removal, application of aquatic herbicides, clearing culverts, and maintenance/repair of lake outlet structures as necessary. Maintenance improvements around the lake are necessary to maintain a safe attraction for visitors. Operation and maintenance activities would not result in impacts to scenic vistas and will not obstruct mountain backdrops from Lake Drive at the north and northeast, Lake Gregory Drive to the West, and San Moritz Drive to the south and southeast; therefore, the project would not result in a substantial adverse effect on a scenic vista.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. According to the San Bernardino County Policy Map NR-4, Scenic Routes and Highways, no designated scenic highways are located within the vicinity of the project site. The closest State Scenic Highway, a portion of California State Route 38, is located approximately 37 miles east of the project site.

The construction improvements and ongoing maintenance elements would not substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway because the project activities are confined to the lake area. Further, these improvements will occur at the ground level within and around the perimeter of the lake, and scenic views will not be impacted. Thus, no impacts would occur to scenic resources.

c) *Substantially degrade an 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less Than Significant Impact. The purpose of the project is to annually restore the lake surface area and bottom elevations to minimize sediment loads entering the lake to maintain the lake's aesthetic, functionality, and quality (physical, biological, and chemical characteristics). Debris and sediment removal, tree and shrub maintenance, and restoration of wetland habitat areas would improve water quality suitable for recreation activities such as fishing and swimming; thereby, improving the physical character of the lake. Equipment staging at a maintenance pad adjoining Library Basin would result in temporary visual impacts. The

equipment and maintenance activities around the lake will temporarily affect the existing visual character or quality of public views. The temporary construction will occur at the South Beach area. Access and topography around the lake's inlets proposes ongoing maintenance varying in location and varying excavation methods specific at each of the inlet locations. The maintenance sediment removal is anticipated to be completed by mechanical means including wheeled and tracked vehicles, when necessary, with equipment located above the lake that would not involve permanent changes to the existing visual character. The equipment access areas will be marked to define the work area and minimize impacts, and outlet repair and maintenance will occur as necessary. These activities will take place during the Park off-season; therefore, the project would not degrade the existing visual character or quality of the site and its surroundings during normal operations when the public is present. The existing public views from adjacent areas will be temporarily affected during the Fall season while maintenance activities are conducted; and therefore, the impact is considered less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The project does not involve or require new lighting for the construction improvements or for O&M activities. Per the County Noise Ordinance (83.01.080(g)(3)) all construction activities would be limited to occur between 7:00 a.m. and 7:00 p.m., except Sundays and Federal Holidays; all construction activities would be scheduled during daylight hours. No new sources of light or glare would result from implementation of the project; therefore, no impacts are anticipated.

Aesthetics Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

2. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

(Check ☐ if project is located in the Important Farmlands Overlay): The California Department of Conservation and the County of San Bernardino Natural Resources Element, NR-5 Agricultural Resources does not identify Important Farmlands (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) within the Crestline Area.

Environmental Setting

The project site does not contain important farmland as identified in the Policy Map NR-5 Agricultural Resources. According to the California Department of Conservation (DOC) Important Farmland Finder, the project site is not included in the California Important Farmland. The project is not located on or near Prime Farmland, nor is it under a Williamson Act Contract (DOC 2018).

The Crest Forest Community Plan, Section 5 – Conservation, recognizes preservation and protection of the Crest Forest natural resources including vegetation, wildlife, rock formations, and streambeds. The Crest Community in which Lake Gregory is located, is covered with a diverse biotic community of trees and other vegetation, fish, birds, reptiles, mammals, and other natural resources such as stream lakes. Goals and Policies require preservation of the Crest Forest wildlife, vegetation, and scenic vistas and collaboration with the California Department of Forestry and Fire Warden (CDF), the Natural Resources Conservation District, and the U.S. Forest Service to implement a long-term Forest Heath Restoration and Maintenance program.

Impact Analysis

a) *Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. Lake Gregory is located on the San Bernardino County Important Farmland 2012: Sheet 2 of 2 published by the California Department of Conservation Farmland Mapping and Monitoring Program (December 2011). The lake is not located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the map. There is no existing farmland on the lake and therefore no impacts to farmland would occur.

b) *Conflict with existing zoning for agricultural use or a Williamson Act contract?*

No Impact. The site is zoned Public Facility (PF) surrounded by Open Space (OS), which does not allow for agricultural use. The site does not have land enrolled in a Williamson Act agricultural program (California Department of Conservation, Williamson Act Enrollment Finder, 2023). No impacts would occur.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

No Impact. Project activities would occur on County owned land as identified on General Plan Map FH22A. Land Use Zoning Districts as identified in the General Plan include Floodway at the lake, open space on the perimeter parkland, and general commercial at the location of the west existing basin (adjacent to the Public Library). The Open Space land use designation is applied to land that is legally constrained from future development and allows only open space, recreation uses, and similar compatible uses. The project does not conflict with existing zoning or cause rezoning of forest land, timberland, or timberland zoned for timberland production.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. The project's construction improvements do no involve conversion or loss of forest land; and therefore, no impact would occur.

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. The project site does not contain Farmland; and, therefore no impact would occur. The current use of the land as a lake is not changing and therefore no impacts would occur.

Agriculture and Forestry Services Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

3. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) 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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

(Discuss conformity with the South Coast Air Quality Management Plan, if applicable):

The project site is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). Under CEQA, the SCAQMD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal Clean Air Act, the SCAQMD has adopted Federal attainment plans for ozone (O_3) and particulate matter 10 microns in diameter or less (PM_{10}). The SCAQMD reviews projects to ensure they do not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan. The SCAQMD *CEQA Air Quality Handbook* provides significance thresholds for both construction and operation of projects within the SCAQMD's jurisdiction. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in Table 4, *South Coast Air Quality Management District Emissions Thresholds*, a significant air quality impact may occur, and additional analysis is warranted to fully assess the significance of impacts.

Table 4
South Coast Air Quality Management District Emissions Thresholds

Phase	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55
Notes: ROG = reactive organic gases; NO_X = nitrous oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns in diameter or less; $PM_{2.5}$ = particulate matter 2.5 microns in diameter or less						
Source: South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds*, April 2019.						

Impact Analysis

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant. On December 2, 2022, the SCAQMD Governing Board adopted the *2022 Air Quality Management Plan* (2022 AQMP). The 2022 AQMP incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, and updated emission inventory methodologies for various source categories. Additionally, the 2022 AQMP utilized information and

data from Southern California Association of Governments (SCAG) and its *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). According to the SCAQMD's *CEQA Air Quality Handbook*, projects must be analyzed for consistency with two main criteria, as discussed below.

Criterion 1:

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

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

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations associated with the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) is used as the basis for evaluating project consistency. As discussed under Responses 3(b) and 3(c), the project's short-term construction emissions, long-term operational emissions, and localized concentrations of carbon monoxide (CO), nitrogen oxide (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would be less than significant. Due to the role volatile organic compound (VOC) plays in O_3 formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established. Overall, the Project would not result in an increase in the frequency or severity of existing air quality violations.

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

As discussed in Response 3(b), the project would result in emissions that are below SCAQMD thresholds. Therefore, the project would not have the potential to cause or affect a violation of the ambient air quality standards and would result in a less than significant impact.

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

The project would result in less than significant impacts with regard to regional and localized concentrations during project construction; refer to Reponses 3(b) and 3(c). Further, the project would not generate operational emissions. As such, the project would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether the project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether a project exceeds the assumptions reflected in the AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

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

A project is consistent with the 2022 AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the 2022 AQMP. In the case of the 2022 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the County's General Plan, SCAG's regional growth forecast, and the SCAG's 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS also provides socioeconomic forecast projections of regional population growth.

Based on the County of San Bernardino Policy Plan Land Use Element, Lake Gregory is designated Crest Forest/Floodway (CF/FW). Areas to the west of the lake are designated Crest Forest/General Commercial-Sign Control Primary (CF/CG-SCp), some areas to the north of the lake are designated Crest Forest/Service Commercial (CF/SC), and the remaining areas surrounding the lake are designated Crest Forest/Single Residential - 14,000 square feet Minimum (CF/RS-14M). The project proposes improvements to the Swim Beach, lake inlets, and seasonal operational and maintenance activities at the debris basins and creek outlets into the lake. Therefore, the project would not change the land use type, and the proposed improvements would be consistent with the land use designation and would not require amendments to these local land use planning documents. Furthermore, given the nature of the project, the project would not result in direct or indirect population growth and, therefore, would not affect Countywide plans for population growth at the site. Additionally, the project would require minimal additional operational and maintenance activities compared to existing conditions, and therefore would not increase employment. Thus, the proposed project is consistent with the types, intensity, and patterns of land use envisioned for the site in these local plans. The population, housing, and employment forecasts adopted by SCAG's Regional Council are based on the local plans and policies applicable to the County. As such, the project would be consistent with SCAG's 2020-2045 RTP/SCS. Additionally, as the SCAQMD has incorporated these same projections into the 2022 AQMP, it can be concluded that the proposed project would be consistent with the projections.

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

The proposed project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by SCAQMD would be required as identified in Responses 3(b) and 3(c). As such, the proposed project meets this AQMP consistency criterion.

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

Land use planning strategies set forth in the 2022 AQMP are primarily based on the 2020-2045 RTP/SCS. As discussed above, the proposed project would be consistent with the County's vision for the site and would not require a General Plan or Zoning Code amendment. As such, the proposed project meets this 2022 AQMP consistency criterion.

In conclusion, the determination of 2022 AQMP consistency is primarily concerned with long-term influence of a project on air quality in the Basin. The proposed project would not result in long-term impact on the region's ability to meet Federal and State air quality standards. Further, the project's long-term influence on air quality in the Basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2022 AQMP. Overall, development of the project would not conflict with or obstruct implementation of the 2022 AQMP and impacts would be less than significant in this regard.

b) 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?

Less Than Significant.

Criteria Air Pollutants

Carbon Monoxide. Carbon Monoxide (CO) is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations due to variations in the rate at which CO is emitted and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable portion of the day.

Ozone (O_3). Ozone (O_3), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High O_3 concentrations exist naturally in the stratosphere. Some mixing of stratospheric O_3 downward through the troposphere to the earth's surface does occur; however, the extent of O_3 transport is limited. At the earth's surface in sites remote from urban areas, O_3 concentrations are normally very low (e.g., from 0.03 ppm to 0.05 ppm). Unlike most other air pollutants, ozone is not directly emitted, but instead is formed in the atmosphere. Ozone is formed when NOx and VOCs react in the presence of sunlight. While both NO_x and VOCs contribute to ozone, the key to attaining the ozone standard is to reduce NO_x.

Nitrogen Dioxide. Nitrogen Dioxide (NO_2) is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N_2) and oxygen (O_2) in air under conditions of high temperature and pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form NO_2. NO_2 is responsible for the brownish tinge of polluted air. The two gases, NO and NO_2, are referred to collectively as NO_x. In the presence of sunlight, NO_2 reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO_3) which reacts further to form nitrates, components of $PM_{2.5}$ and PM_{10}.

Sulfur Dioxide (SO_2). Sulfur dioxide (SO_2) is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H_2SO_4), which contributes to acid precipitation, and sulfates, which are components of PM_{10} and $PM_{2.5}$. Most of the SO_2 emitted into the atmosphere is produced by burning sulfur-containing fuels. SO_2 is a precursor to sulfate, which is a component of fine particulate matter, PM_{10}, and $PM_{2.5}$.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate lungs and can potentially damage the respiratory tract. On June 19, 2003, the CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the EPA announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon

appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging. On July 8, 2016, the EPA made a finding that the Basin has attained the 1997 24-hour and annual $PM_{2.5}$ standards based on 2011-2013 data. However, the Basin remains in nonattainment as the EPA has not determined that California has met the FCAA requirements for redesignating the Basin nonattainment area to attainment.

Volatile Organic Compounds (VOCs). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. The terms VOC and reactive organic gases (ROG) (see below) are often used interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. The terms ROG and VOC are often used interchangeably.

Construction Impacts

Construction Emissions

Construction activities would occur over a period of approximately five months. Construction activities would include temporary inflatable cofferdam installation, dewatering/clearing and grubbing, scarify and dry/dewatering, clearing and grubbing, grading, and storm drain improvements. The project would require hauling of excavated materials from the site to the landfill and hauling of construction materials to the construction areas. The California Emissions Estimator Model (CalEEMod) version 2022.1 was utilized to calculate the Project's construction air pollutants emissions; refer to Appendix B, *Air Quality/Greenhouse Gas Emissions/Energy Data*, for CalEEMod outputs and results. Exhaust emission factors for typical diesel-powered heavy equipment are based on the program defaults of CalEEMod. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. Table 5, *Project-Generated Construction Emissions*, presents the anticipated daily short-term construction emissions associated with the Project.

Table 5
Project-Generated Construction Emissions

Emissions Source	Pollutant (pounds/day)[1,2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**10.80**	**89.60**	**99.60**	**0.28**	**8.01**	**4.26**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Is Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes: ROG = reactive organic gas; NO_x = nitrous oxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

1. Emissions were calculated using CalEEMod, version 2022.1. Maximum emissions during summer or winter are presented here to represent the worst-case scenario.
2. Modeling assumptions include compliance with SCAQMD Rule 403 which requires: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

Refer to Appendix B, *Air Quality/Greenhouse Gas Emissions/Energy Data* for detailed model input/output data.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. These short-term impacts, however, would not be significant for the reasons discussed below.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. $PM_{2.5}$ components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would implement all required dust control techniques per SCAQMD Rule 403, which requires that excessive fugitive dust emissions be controlled by regular watering or other dust prevention measures to reduce PM_{10} and $PM_{2.5}$ concentrations. It should be noted that these reductions were applied in CalEEMod. As depicted in Table 5, total fugitive dust (PM_{10} and $PM_{2.5}$) emissions during construction would not exceed applicable SCAQMD thresholds. Thus, impacts in this regard would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the site, emissions produced on-site as equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 5, criteria pollutant emissions, including those associated with the use of construction equipment and worker

vehicle exhaust, would not exceed the applicable SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, serpentinite and ultramafic rocks are not known to occur within the Project area.[4] Thus, no impact would occur in this regard.

Operational Impacts

The project would continue seasonal operational and maintenance activities during off-season (September to March) to protect the lake, fishery, and recreational resources. These activities include sediment removal at storm drain outlets, culvert pipe repair, and lake sediment removal at outlets. The seasonal operational and maintenance activities are currently conducted following the 2019 Lake Gregory Operations and Maintenance Manual (2019 Manual); however, this project also includes an update the Operational and Maintenance Plan as described in *Section 2, Project Description*. Although the seasonal operational and maintenance activities would generate vehicle trips associated with worker commute and hauling, these trips would be minimal and short-term. Furthermore, the project would generate approximately the same level of maintenance trips as existing conditions. Similarly, stationary source emissions associated with maintenance equipment would also be minimal, short-term, and approximately the same as existing conditions. Additionally, the project does not propose any occupied buildings and would not introduce new stationary source emissions. Overall, as the project would not include new mobile sources of emissions or permanent stationary sources, the project would not have the potential to generate criteria air pollutants emissions from project operations. Impacts would be less than significant in this regard.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age and gender]). In particular, O_3 precursors, VOCs and NO_X, affect air quality on a regional scale. Health effects related to O_3 are therefore the product

[4] California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000.

of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD,[5] the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD),[6] SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae goes on to state that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. As the project would not exceed SCAQMD thresholds for construction (refer to Table 5) and would not generate operational air emissions, the project would result in less than significant air quality health impacts.

Conclusion

As summarized above, the project's short-term construction emissions would be below the SCAQMD thresholds and would result in a less than significant impact. Furthermore, the project would not result in significant long-term air quality impacts, as there would be minimal additional emissions compared to existing conditions from the operational and maintenance activities. Thus, the project's construction and operational emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the Basin. Impacts would be less than significant in this regard.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and

[5] South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

[6] San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

people with illnesses.[7] Examples of these sensitive receptors are residences, schools, hospitals, daycare centers, and places of worship. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The closest sensitive receptors to the storm drain improvements are a single-family residence (i.e., 24620 Lake Drive) and a school (i.e., Lake Gregory Education Center) located approximately 50 feet from the existing drain outlets. The closest sensitive receptors to the Swim Beach are a single-family residence (i.e., 24101 Lake Gregory Drive) and a library (Crestline Library) located approximately 140 feet west. The closest sensitive receptor to the debris basin is a single-family residence (i.e., 24655 San Moritz Drive) located approximately 200 feet southeast of the debris basin.

In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (stationary sources only). The CO hotspot analysis following the LST analysis addresses localized mobile source impacts.

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology*, dated June 2003 and revised 2008, for guidance. The LST methodology assists lead agencies in analyzing localized impacts at the project-specific level. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways.

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day.[8] SCAQMD provides LST thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST thresholds for projects over five acres. According to CalEEMod, the project would actively disturb approximately three acres per day during the grading phase. Therefore, conservatively the LST thresholds for two-acre were utilized for the construction LST analysis as the two-acre thresholds are stricter than five-acre thresholds. Sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. According to SCAQMD LST Methodology, projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters. As the nearest sensitive uses are located approximately 50 feet (15 meters) from the proposed construction boundary, the LST values for 25 meters (82 feet) were used. The project site is located within Source Receptor Area (SRA) 37, *Central San Bernardino Mountains*.

Construction Impacts

Table 6, *Localized Significance of Emissions*, shows the localized construction-related emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 37. It is noted that the localized emissions presented in Table 6 are less than those in Table 5 because localized emissions include only on-site emissions (i.e., from construction equipment and dust from material movement), and do not include off-site emissions (i.e., from

[7] Per the definition in the SCAQMD *Final Localized Significance Threshold Methodology*, revised July 2008, and various SCAQMD Rules (such as Rule 1470, paragraph [b][60]).

[8] The number of acres represent the total acres traversed by grading equipment. To properly grade a piece of land, multiple passes with equipment may be required. The disturbance acreage is based on the equipment list and days of the grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.

hauling activities). As shown in Table 6, localized construction emissions would not exceed the LSTs for SRA 37. Therefore, localized significance impacts from construction would be less than significant.

Table 6
Localized Significance of Emissions

Source	Pollutant Emissions (pounds/day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions[2,3]	**77.21**	**87.53**	**4.22**	**3.20**
Localized Significance Threshold[4]	*170*	*972*	*7*	*4*
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes: NOx = nitrous oxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

1. Emissions were calculated using CalEEMod, version 2022.1.
2. Maximum on-site daily emissions for all four pollutants, including NO_X, CO, PM_{10}, and $PM_{2.5}$, occur during the grading phase and storm drain improvement phases overlapping in 2024.
3. Modeling assumptions include compliance with SCAQMD Rule 403 which requires the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.
4. The Localized Significance Threshold Mass Rate Screening Criteria was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (three acres per day; two-acre thresholds were used) and SRA 37.

Refer to Appendix B, *Air Quality/Greenhouse Gas Emissions/Energy Data* for detailed model input/output data.

Operational Impacts

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a project if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of such emissions, no long-term localized significance threshold analysis is needed. No operational LST impacts would result in this regard.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. Nationwide estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[9] Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

As previously discussed, the proposed project does not directly generate additional vehicle trips compared to existing conditions, a predominant source of CO emissions. As such, it is not anticipated that the project would result in a CO hotspot. Impacts would be less than significant in this regard.

[9] United States Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed October 10, 2023.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project does not propose any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by requiring equipment to be shut off when not in use or limiting idling time to no more than five minutes. Compliance with these existing regulations would further reduce the detectable odors from heavy-duty equipment exhaust. Any odor impacts to existing adjacent land uses would be short-term and negligible. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant in this regard.

Air Quality Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

4. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other 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?			X	
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

☒Check if project is located in the Biological Resources Overlay or Contains habitat for any species listed in the California Natural Diversity Database

Environmental Setting

The following section is based upon Appendix C, *Biological Resources Assessment*. The site (Lake Gregory) is mainly comprised of open water, urban/developed lands, with ornamental non-natural habitat types, and disturbed mixed conifer natural vegetation community. The site and surrounding area generally consists of concave flat topography, sloping downwards towards the lake surface. Two natural vegetation communities were observed and mapped within the boundaries of the project site: (1) disturbed mixed conifer forest (*Pinus ponderosa – Calocedrus decurrens)*, and (2) Red Willow Thickets (*Salix laevigata*).

Land cover types observed include beach, non-vegetated channel/floodways, open water, ornamental plantings, and urban/developed lands along the lake perimeter.

Wetland features observed during the field survey include the Library Basin and a portion of Lake Inlet 11 (Refer to *Section 10*, *Hydrology and Water Quality*).

Impact Analysis

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Special Status Plant Species

Less Than Significant With Mitigation Incorporated. No special-status plant species were observed within the project site during 2023 surveys. Thirty-one special-status plant species have the potential to occur due to the presence of coniferous and limited riparian habitat. However, the potential is very low due to current land use and ongoing anthropogenic disturbance in the coniferous forest understory. Regardless, potentially significant direct impacts resulting from construction activities to install improvements associated with the drainage inlets in upland areas could occur to special-status plant species if activities occur in suitable habitat. Potentially significant temporary indirect impacts may occur during construction within or near suitable habitat in the form of dust and increased human activity. Implementation of Mitigation Measure BIO-1 would ensure that impacts to special status plant species remain less than significant.

Special-status plant species with the potential to occur are as follows:

- Parish's oxytheca (*Acanthoscyphus parishii* var*. parishii*)
- Palmer's mariposa lily (*Calochortus palmeri* var. *palmeri*)
- Plummer's mariposa lily (*Calochortus plummerae*)
- San Bernardino Mountains owl's-clover (*Castilleja lasiorhyncha*)
- Mojave paintbrush (*Castilleja plagiotoma*)
- Tulare cryptantha (*Cryptantha incana*)
- Mojave tarplant (*Deinandra mohavensis*)
- Johnston's monkeyflower (*Diplacus johnstonii*)
- southern Sierra woolly sunflower (*Eriophyllum lanatum* var. *obovatum*)
- pine green-gentian (*Frasera neglecta*)
- Johnston's bedstraw (*Galium johnstonii*)
- urn-flowered alumroot (*Heuchera caespitosa*)
- Parry's sunflower (*Hulsea vestita* ssp. *parryi*)
- Silver-haired ivesia (*Ivesia argyrocoma* var. *argyrocoma*)
- ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*)
- lemon lily (*Lilium parryi*)
- Mojave monardella (*Monardella exilis*)
- Hall's monardella (*Monardella macrantha* ssp. *hallii*)
- rock monardella (*Monardella saxicola*)
- California muhly (*Muhlenbergia californica*)
- golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*)
- Parish's yampah (*Perideridia parishii* ssp. *parishii*)
- Transverse Range phacelia (*Phacelia exilis*)
- Mojave phacelia (*Phacelia mohavensis*)
- southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*)
- salt spring checkerbloom (*Sidalcea neomexicana*)
- chickweed oxytheca (*Sidotheca caryophylloides*)
- Laguna Mountains jewelflower (*Streptanthus bernardinus*)
- southern jewelflower (*Streptanthus campestris*)
- San Bernardino aster (*Symphyotrichum defoliatum*)
- Greata's aster (*Symphyotrichum greatae*)

Special Status Wildlife Species

Less Than Significant With Mitigation Incorporated. Five special-status wildlife species have a moderate to high potential to occur within the project site: mastiff bat (*Eumops perotis californicus*), San Bernardino flying squirrel (*Glaucomys oregonensis californicus*), bald eagle (*Haliaetus leucocephalus*), osprey (*Pandion haliaetus*), and yellow warbler *(Setophaga petechia*). The project is not expected to have any permanent impacts to these species. Indirect temporary impacts due to the partial dewatering of Lake Gregory will decrease the amount of foraging habitat for western mastiff bat, bald eagle, and osprey. This temporary indirect impact is expected to be less than significant due to the large size of the lake in comparison with the small proposed dewatered area at Swim Beach. Indirect temporary impacts may occur to nesting birds due to increased noise levels during construction and dredging activities and are considered potentially significant. Implementation of Mitigation Measure BIO-2 would ensure that impacts to special status wildlife species remain less than significant.

b) *Have a substantial adverse effect on any riparian habitat or other 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?*

Less Than Significant. The project site contains approximately 0.58 acre of red willow thicket, a riparian habitat and sensitive natural community. Implementation of the project would not have permanent impacts to this community. However, approximately 0.07 acre of this community will be temporarily impacted in the southeast portion of the project site associated with the dredging of San Moritz Channel Basins. Due to the size of the impacted area and the temporary nature of the impact, the project would not have a substantial effect on a riparian habitat or other sensitive community, and impacts would be less than significant.

c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. The *Aquatic Resources Delineation Report* (Appendix D) determined that approximately 0.53 acre of wetland USACE Waters of the US and RWQCB wetland Waters of the State occur within the project site. The 0.53 acre consists of Library Basin in the western portion of the project site (0.41 acre) and Inlet 11 in the eastern portion of the project site (0.12 acre). Implementation of the project will not temporarily or permanently impact these areas, as a result the project is required to apply for regulatory permits. No impacts to state or federally protected wetlands would occur.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less Than Significant With Mitigation Incorporated. Wildlife movement is not anticipated within the site, as the project site is surrounded by residential development. Project activities are not anticipated to affect wildlife movement. It is likely, however, that Lake Gregory and the surrounding habitat functions as a migratory stopover for bird species. Indirect temporary impacts have the potential to occur to nesting birds due to increased noise levels during construction and dredging activities. Implementation of Mitigation Measure BIO-2 would ensure that impacts to native wildlife nursery sites remain less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The project site supports trees that are regulated under the San Bernardino County Development Code, Chapter 88.01, *Plant Protection and Management*. The project would not remove any regulated trees. As such, the project will not conflict with any local policies or ordinances protecting biological resources, and no impacts would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is not within or subject to the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would have no impact on an adopted conservation plan.

Mitigation Measures

BIO-1 **Pre-Construction Survey for special-status plant species.** Prior to project implementation, a pre-construction survey will be conducted within the appropriate blooming period(s) to ensure no special status plant species are present or will be impacted within the proposed impact area. If no special-status plant species are found during the pre-construction survey, no further mitigation is required and there will be no impact to special-status plant species. If populations of special-status plants are found during the pre-construction survey and they are located within temporary impact areas, a habitat restoration plan will be prepared to minimize impacts to a less than significant level. If populations of special-status plants are found within permanent impact areas, off-site mitigation will be necessary in consultation with CDFW to reduce impacts to less than significant.

BIO-2 **Nesting bird surveys.** Prior to commencing project activities (including construction of improvements and future maintenance) during the nesting season (December 15-September 15), a designated qualified biologist shall survey the project site and a biologically defensible buffer distance for both diurnal and nocturnal nesting birds. Surveys shall be conducted by the designated qualified biologist at the appropriate time(s) of day, no more than three business days prior to commencement of project activities. If an active bird nest is located, the designated qualified biologist shall implement and monitor specific avoidance and minimization measures as specified in a CDFW-approved Nesting Bird Plan. The NBP includes project specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the project complies with all applicable laws related to nesting birds and birds of prey. The NBP also includes monitoring protocols; survey timing and duration; the creation, maintenance, and submittal of a bird nesting log to CDFW; and project-specific avoidance and minimization measures. Avoidance measures include project phasing and timing, monitoring of project-related noise, sound walls, and buffers.

Biological Resources Impact Conclusions

Compliance with the mitigation measures above would ensure that impacts remain less than significant.

5. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

(Check if project is located in the Cultural ☐ overlays or cite results of cultural resource review)

Environmental Setting

A *Cultural Resources Assessment* (Appendix E), prepared by BRC Consulting LLC, included a historical records search and field survey. The records search, conducted on July 6, 2023 at the South Central Coastal Information Center (SCCIC), reviewed the status of all recorded historic and prehistoric cultural resources within one half-mile of the project site and survey and excavation reports completed within or adjacent to the project site. Additional resources reviewed included the National Register, the California Register, and documents and inventories published by the California Office of Historic Preservation (OHP). Additional research included the review of records of the General Land Office Maintained by the Bureau of Land Management, the Rim of the World Historical Society, the San Bernardino County Library, the San Bernardino County Assessor, and various Internet resources. Furthermore, a field survey was conducted on November 30, 2023, and December 1, 2023.

The records search revealed that 16 previous cultural resources studies have taken place within or adjacent to the project site, and six cultural resources have been recorded within one half-mile of the project site. A previous search included a portion of the site; however, no cultural resources have been previously reported in the boundaries of the project site.

Impact Analysis

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. The results of the SCCIC research determined that the project site does not contain any known historical resources as defined by the CEQA Guidelines. Therefore, there would be no impact to any historical resources from the proposed project.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant With Mitigation Incorporated. Data from the SCCIC revealed that six cultural resources have been recorded within one half-mile of the project site. Previous disturbances at the project site have been severe and did not yield archaeological resources. As such, the potential to unearth such resources during Project-related excavation is low. However, ground disturbing activities always have the potential to reveal buried deposits not observed on the surface during previous surveys. In the event that excavation activity disturbs deeper sediment dating to the earliest parts of the Holocene or Late Pleistocene periods, the material would be scientifically significant. With the implementation of Mitigation Measures CR-1 -3, potential impacts to unanticipated cultural resources found during project construction would be less than significant.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation Incorporated. No known human remains are present within the project area. If human remains are inadvertently uncovered during project activities, adherence to Mitigation Measure CR-4 would reduce impacts to less than significant.

Mitigation Measures:

CR-1 **Unanticipated Discovery – Cultural Resources.** In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

CR-2 **Cultural Monitoring and Treatment Plan**. If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CR-3 **Paleontological Monitoring Program**. If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are identified, a paleontological monitoring program shall be considered for the remainder of the Project activities. Any proposed program shall follow the current guidelines set forth by the San Bernardino County Museum.

CR-4 **Human Remains.** If human remains or funerary objects are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately, and within 24-hours. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

Cultural Resources Impact Conclusions

Compliance with the mitigation measures above would ensure that impacts remain less than significant.

6. ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Environmental Setting

State

Senate Bill 100

Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; 60 percent by December 31, 2030; and 100 percent by December 31, 2045. SB 100 requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board, and all other State agencies incorporate this policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and State board to utilize programs authorized under existing statutes to achieve such renewable energy goals.

Executive Order N-79-20

Executive Order N-79-20 issued September 23, 2022, directs the State to require all new cars and passenger trucks sold in the State to be zero-emission vehicles by 2035. Executive N-79-20 further states that all medium- and heavy-duty vehicles sold in the State will be zero-emission by 2045.

Impact Analysis

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Less Than Significant. The project proposes storm drain improvements, dewatering/clearing and grubbing, grading, and routine O&M elements; the project does not propose any buildings and would not introduce land uses which would require new permanent energy usage. Additionally, while the proposed improvements would provide a safer attraction for park visitors, the proposed project would not generate additional trips compared with existing condition nor is it anticipated to significantly increase the capacity of Lake Gregory. As a result, project operations would not result in increased energy consumption from electricity, natural gas, or operational fuel usage. As such, this analysis focuses on one source of energy that is relevant to the proposed project: on-road (automotive) fuel consumption associated with construction vehicle trips and off-road fuel consumption associated with construction equipment usage.

The California Emissions Estimator Model (CalEEMod) version 2022.1 was utilized to calculate the Project's fuel consumption during construction; refer to Appendix B, *Air Quality/Greenhouse Gas Emissions/Energy Data*, for the CalEEMod outputs and results. The project's construction equipment fuel consumption is estimated from the Project's construction equipment, timing/phasing, and hours of duration for construction equipment as modeled in CalEEMod. The Project's construction automotive fuel consumption is estimated using the California Air Resources Board (CARB) Emissions Factor 2021 (EMFAC2021) database, which provides projections for typical daily fuel (i.e., diesel and gasoline) usage in the County, and the Project-generated trips during construction as projected in CalEEMod.

The project's estimated construction-related energy consumption is summarized in Table 7, *Energy Consumption*. As shown in Table 7, the project would increase the off-road vehicle fuel consumption within the County by 0.0269 percent and on-road vehicle fuel consumption by 0.0015 percent during construction.

Table 7
Energy Consumption

Energy Type	Project Annual Energy Consumption[1]	San Bernadino County Annual Energy Consumption[2]	Percentage Increase Countywide[2]
Fuel Consumption			
Construction Off-Road Fuel Consumption	4,934 gallons	18,347,432 gallons	0.0269%
Construction On-Road Fuel Consumption	17,046 gallons	1,130,700,651 gallons	0.0015%

Notes:
1. Project electricity consumptions as modeled in California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model. Project fuel consumption calculated based on CalEEMod results.
2. The project increases in construction off-road and on-road fuel consumption are compared with the projected Countywide off-road fuel consumption and Countywide on-road fuel consumption in 2025 (first year of construction). Countywide off-road construction equipment diesel fuel consumption and on-road fuel consumption are from CARB EMFAC2021.

Refer to Appendix B, *Air Quality/Greenhouse Gas Emissions/Energy Data* for assumptions and methodology used in this analysis.

Project construction would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during dewatering/clearing and grubbing, grading, and storm drain improvements. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and CARB engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

As indicated in Table 7, the project's off-road fuel consumption and on-road fuel consumption from construction would be approximately 4,934 gallons and 17,046 gallons, respectively. Consequently, the project's off-road construction equipment diesel fuel consumption and on-road construction fuel consumption would increase San Bernadino County's consumption by approximately 0.0269 percent and 0.0015 percent, respectively. As such, project construction would have a minimal effect on the local and regional energy supplies and would not require additional capacity. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. A less than significant impact would occur in this regard.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant. The County currently does not have a plan pertaining to renewable energy or energy efficiency. The County General Plan contains some goals related to renewable energy; however, the Project would not propose any new buildings that would consume additional energy over existing conditions. As such, as a lake improvements project with minimal construction fuel consumption, the proposed Project is not anticipated to conflict with or obstruct the State plan for renewable energy or energy efficiency. Specifically, as shown in Table 7, the Project's off-road fuel consumption and on-road fuel consumption from construction would increase San Bernadino County's consumption by approximately 0.0269 percent and 0.0015 percent, respectively. In addition, project implementation would not result in increased operational electricity, natural gas, or fuel consumption compared to existing conditions. Further, the project would be required to adhere to all applicable federal, State, and local requirements pertaining to energy efficiency. Therefore, less than significant impacts would occur in this regard.

Energy Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury death involving?			X	
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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) 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?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

(Check if project is located in the Geologic Hazards ☒ or Paleontological Resources ☐Overlay District):

Environmental Setting

Lake Gregory is situated in the San Bernardino Mountains, about 4,550 feet above mean sea level. The mountains, located north of the Los Angeles Basin and south of the Mojave Desert, are relatively young for their height, formed approximately 11 million years ago as a result of tectonic plate movement within the San Andreas Fault (USGS, 2000). The mountains feature a variety of local streams and natural lakes, as well as constructed channels and artificial reservoirs. A *Geotechnical Investigations Report* (Appendix H) was prepared in August 2023 by Converse Consultants. Through a thorough literature review, field exploration, and laboratory testing, the report offers conclusions regarding the geotechnical conditions of the project site and provides recommendations regarding design and construction of the proposed improvements.

The report found that the soils present within the project site primarily consist of a mixture of sand, silt and gravel with organic material, which have very low expansion potential. Additionally, the report concludes that while the project site is not located in a mapped State of California designated fault zone, it is within a San Bernardino County Earthquake Fault Zone. Furthermore, the project site is located within an area with low to moderate generalized landslide susceptibility and is not located within any areas of generalized or suspected liquefaction

susceptibility, according to the San Bernardino County General Plan Geologic Hazards Overlay Map sheet FH22C.

Impact Analysis

a) Expose people or structures to 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.

ii) Strong seismic ground shaking?

iii) Seismic related ground failure, including liquefaction?

iv) Landslides?

Less Than Significant

i, ii) According to the San Bernardino North Quadrangle California Division of Mines and Geology official map (July 1, 1974), Lake Gregory is not located near any potentially active faults. The *Geotechnical Investigations Report* specifies that the project site is not located within a State of California designated earthquake fault zone, but does occur within a San Bernardino County designated earthquake fault zone. The nearest County recognized fault is the Cleghhorn Fault, located approximately 2.7 miles northeast of the site. However, the *Geotechnical Investigations Report* concludes that due to the dense nature of the underlying bedrock, the risk of surface fault rupture potential is classified as low. Thus, impacts from fault rupture or strong seismic shaking will be less than significant.

iii) When an earthquake occurs, excess pore pressures may develop, causing soil mass that lacks cohesion to potentially suffer a dramatic reduction of its shear strength. This phenomenon is known as liquefaction. Neither the State of California nor the County of San Bernadino designate the project site as an area for liquefaction risk (CGS, 2007; CSB FH22 C), and potential impacts are therefore less than significant.

iv) The General Plan Geologic Hazards Overlay Map for Lake Gregory (FH22 C) categorizes landslide hazard potential for the project site as low to moderate. However, there will be no development of habitable facilities that would significantly alter site topography or promote unstable soil conditions. Therefore, impacts are considered less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant. Given that the project would not significantly alter site topography or perpetuate unstable conditions, soil erosion, or loss of topsoil, and rather reduce sediment loads entering the lake, no significant impacts will occur.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant. While development of the proposed facilities necessitates some excavation, grading, and land-clearing activity, the General Plan Geological Hazards Overlay Plan does not recognize any liquefaction potential for the project area. Additionally, the project site is not located within a State of California or County of San Bernadino designated landslide hazard zone (CGS, 2007; SBC 2010). Therefore,

the project is not anticipated to occur in unstable conditions that could result in landslide, lateral spreading, subsidence, liquefaction, or collapse. Impacts will be less than significant.

d) Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant. Expansive soil is characterized by its unique fine-ground clay composition and is an integral component of historical lake and floodplain sediment. These soils are subject to swelling and shrinkage that varies with the amount of moisture present in the ground, the extent of which is dependent on both the amount and types of clay comprising the soil. The Natural Resources Conservation Service (NCRS) issues soil ratings based upon a soil sample's potential for shrinkage, with a 'high' rating indicating a likely hazard. According to the Appendix H, *Geotechnical Investigations Report*, (Converse, 2023), there is very low potential for expansive soil to occur, with all samples being assigned an expansion index of 0. Given that the project is not located on any expansive soil, does not propose development of any habitable structures, any impacts from the project to expansive soils will be less than significant.

e) 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?

No Impact. The project does not include a proposal for habitable development that would warrant connections to a wastewater disposal system or septic tanks, no impacts will occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact.

According to the Cultural Resources Report, the presence of any fossil material is unlikely, given the (relatively) modern ages of the geological units underlying Lake Gregory, but caution during development should be observed. Additionally, the Western Science Center, an authority for paleontological resources within San Bernardino County, does not have localities within the project area, nor within a one-mile radius. While Lake Gregory consists of both Holocene and Cretaceous aged sediments, it is improbable that either is associated with fossil material. The Holocene-aged deposits are newer and have low preservation value, whereas units from the Cretaceous period are not considered paleontologically sensitive. Thus, no impacts to unique paleontological resources or geologic features would occur.

Mitigation Measures

No mitigation measures are required.

Geology and Soils Impact Conclusions

No significant adverse impacts have been identified, and no mitigation measures are required.

8. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Background

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 369.2 million metric tons of carbon dioxide equivalent ($MTCO_2e$) per year.[10] Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of October 2023, the highest monthly average concentration of CO_2 in the atmosphere was recorded at 425 ppm.[11]

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO_2e)[12] concentration is required to keep global mean warming below 2 degrees Celsius (^oC), which in turn is assumed to be necessary to avoid dangerous climate change.

Regulatory Framework

Federal

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs

[10]California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2020,* https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, accessed October 18, 2023.
[11]Scripps Institution of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, https://scripps.ucsd.edu/programs/keelingcurve/, accessed October 18, 2023.
[12] Carbon Dioxide Equivalent (CO_2e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

at 400 to 450 ppm carbon dioxide equivalent (CO_2e)[13] concentration is required to keep global mean warming below 2 degrees Celsius (^oC), which in turn is assumed to be necessary to avoid dangerous climate change.

State

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 – 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Senate Bill 32. Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030.

CARB Scoping Plan. On December 11, 2008, CARB adopted the Climate Change Scoping Plan (Scoping Plan), which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce GHG emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020 emissions level of 596 million $MTCO_2e$ under a business as usual (BAU)[14] scenario. This is a reduction of 42 million $MTCO_2e$, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

The Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average

[13] Carbon Dioxide Equivalent (CO2e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[14] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions; refer to http://www.arb.ca.gov/cc/inventory/data/bau.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. The measures described in the Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal."

On January 20, 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update was finalized in November 2017 and approved on December 14, 2017, and reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. The 2017 Scoping Plan Update establishes a new Statewide emissions limit of 260 million $MTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.

On December 15, 2022, CARB released the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), which identifies the strategies achieving carbon neutrality by 2045 or earlier. The 2022 Scoping Plan contains the GHG reductions, technology, and clean energy mandated by statutes. The 2022 Scoping Plan was developed to achieve carbon neutrality by 2045 through a substantial reduction in fossil fuel dependence, while at the same time increasing deployment of efficient non-combustion technologies and distribution of clean energy. The plan would also reduce emissions of short-lived climate pollutants (SLCPs) and would include mechanical CO_2 capture and sequestration actions, as well as emissions and sequestration from natural and working lands and nature-based strategies. Under 2022 Scoping Plan, by 2045, California aims to cut GHG emissions by 85 percent below 1990 levels, reduce smog-forming air pollution by 71 percent, reduce the demand for liquid petroleum by 94 percent compared to current usage, improve health and welfare, and create millions of new jobs. This plan also builds upon current and previous environmental justice efforts to integrate environmental justice directly into the plan, to ensure that all communities can reap the benefits of this transformational plan.

Local

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy. On September 3, 2020, the Regional Council of the Southern California Association of Governments (SCAG) formally adopted the *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing GHGs from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are to:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the State-mandated reductions in GHG emissions through reduced per capita vehicle miles traveled (VMT). Some of these tools include center focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

County of San Bernardino General Plan. The General Plan Natural Resources Element provides policies and programs for reducing energy consumption and increasing utilization of new energy sources within the County. Specifically, the Natural Resources Element focuses on protecting and preserving natural resources and improving water and air quality. These policies also help reduce GHG emissions. The General Plan Natural Resources Element includes the following goals and policies that are applicable to the proposed project:

Goal NR-1 Air quality that promotes health and wellness of residents in San Bernardino County through improvements in locally-generated emissions.

Policy NR-1.1 Land use. We promote compact and transit-oriented development countywide and regulate the types and locations of development in unincorporated areas to minimize vehicle miles traveled and greenhouse gas emissions.

Policy NR-1.7 Greenhouse gas reduction targets. We strive to meet the 2040 and 2050 greenhouse gas emission reduction targets in accordance with state law.

County of San Bernardino Regional Greenhouse Gas Reduction Plan. The County of San Bernardino adopted its first Greenhouse Gas Emissions Reduction Plan in 2011 and adopted its current Regional GHG Emissions Reduction Plan Final (GHG Reduction Plan) in March 2021. The GHG Reduction Plan presents a comprehensive set of actions to reduce its internal and external GHG emissions to 40 percent reduction in GHG emissions from 1990 levels by 2030, consistent with the AB 32 Scoping Plan. The GHG Reduction Plan has the following components that fulfill cumulative mitigation for GHG emissions:

- Provides a communitywide GHG emissions reduction target that would substantially lessen the cumulative impact;
- Provides measures that new development projects shall follow to meet the County's reduction target and substantially lessen the cumulative impact;
- Provides a set of GHG emission inventories that provide quantitative facts and analysis for how the measures within the GHG Reduction Plan Update meet the reduction targets that substantially lessen the cumulative impact; and
- Provides an implementation, monitoring, and update program to ensure that the reduction target is met.

GHG Reduction Plan includes measures related to transportation, water, solid waste, energy, and renewable energy sources all play a crucial part in gaining the level of efficiency needed within new development across the County. Mitigation of GHG emissions impacts through the Development Review Process (DRP) provides one of the most substantial reduction strategies for reducing communitywide GHG emissions associated with new development. The DRP procedures for evaluating GHG impacts and determining significance for CEQA purposes will be streamlined by utilizing (1) applying a uniform set of performance standards to all development projects, and (2) utilizing the Interim Screening Tables to mitigate project GHG emissions. Projects will have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions. A review standard of 3,000 $MTCO_2e$ per year will be used to identify projects that require the use of the Interim Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions.

Thresholds of Significance

Amendments to CEQA Guidelines Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions and gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. This section recommends certain factors to be considered in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs). The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7I). The California Natural Resources Agency has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analyses (CEQA Guidelines Section 15064(h)(3)).[15,16] A project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project.[17]

As discussed above, the GHG Reduction Plan requires all development projects, including those otherwise determined to be exempt from CEQA, are subject to applicable Development Code provisions, including the GHG performance standards and State requirements. With the application of the GHG performance standards, projects that are exempt from CEQA and small projects that do not exceed 3,000 $MTCO_2e$ per year are considered to be consistent with the GHG Reduction Plan and determined to have a less than significant individual and cumulative impact for GHG emissions.

Impact Analysis

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant. The project's anticipated GHG emissions are identified in Table 8, *Estimated Greenhouse Gas Emissions*. The most recent version of the California Emissions Estimator Model (CalEEMod), version 2022.1 was used to calculate project-related GHG emissions. Project-related GHG emissions would include direct emissions from construction activities. The project proposes seasonal operational and maintenance activities during off-season (September to March) to protect the lake, fishery, and recreational resources. These activities include sediment removal at storm drain outlets, culvert pipe repair, and lake sediment removal at outlets. The seasonal operational and maintenance activities are currently conducted following the 2019 Lake Gregory Operations and Maintenance Manual (2019 Manual). The project proposes updates to the 2019 Manual to improve the lake maintenance program. Although the

[15] California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, pp. 11-13, 14, 16, December 2009, https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf, accessed October 18, 2023.
[16] State of California Governor's Office of Planning and Research, *Transmittal of the Governor's Office of Planning and Research's Proposed SB97 CEQA Guidelines Amendments to the Natural Resources Agency*, April 13, 2009, https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf, accessed October 18, 2023.
[17] 14 CCR Section 15064(h)(3).

seasonal operational and maintenance activities would generate vehicle trips associated with worker commute and hauling, these trips would be minimal and short-term. Furthermore, the project would generate approximately the same level of maintenance trips as existing conditions. Similarly, stationary source emissions associated with maintenance equipment would also be minimal, short-term, and approximately the same as existing conditions. Additionally, the project does not propose any occupied buildings and would not introduce new stationary source emissions. Overall, as the proposed project would not include new mobile sources of emissions or permanent stationary sources, no GHG emissions associated with project operation (such as those from area sources, refrigerants, energy consumption, water demand, and solid waste generation) are anticipated or quantified.

Table 8
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[1]				
Direct Emissions					
Construction (amortized over 30 years)[2]	31.10	<0.01	<0.01	<0.01	31.63
Total Project-Related Emissions[3]	**32 $MTCO_2e$/year**				
County of San Bernardino Screening Threshold	**3,000 $MTCO_2e$/year**				
Exceed Thresholds?	**No**				

Notes:
1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.
2. The amount of GHG emissions from project construction would total 31.63 $MTCO_2e$ per year when amortized over 30 years, or 949 $MTCO_2e$ total. The standard 30-year project lifetime assumption is based on South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.
3. Totals may be slightly off due to rounding.

Refer to Appendix B, *Air Quality/Greenhouse Gas Emissions/Energy Data* for assumptions used in this analysis.

Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[18] As shown in Table 8, the proposed project would result in approximately 32 $MTCO_2e$ per year construction emissions when amortized over 30 years (or a total of 949 $MTCO_2e$ in 30 years). As discussed above, the project would not generate emissions during operation. As such, the amount of project related GHG emissions from direct and indirect sources combined would total approximately 32 $MTCO_2e$ per year. Therefore, project-related GHG emissions would not exceed the County's screening threshold of 3,000 $MTCO_2e$ per year, and impacts would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant. According to the GHG Reduction Plan, "all development projects, including those otherwise determined to be exempt from CEQA will be subject to applicable Development Code provisions, including the GHG performance standards, and State requirements, such as the California Building Code requirements for energy efficiency. With the application of the GHG performance standards, projects that are exempt from CEQA and small projects that do not exceed 3,000 $MTCO_2e$ per year will be considered to be consistent with the Plan Update and determined to have a less than significant individual and cumulative impact for GHG emissions." The GHG Reduction Plan also states that "the 3,000 $MTCO_2e$ per year value was chosen as the medial value and is used in defining small projects that must include the Performance

[18] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008).

Standards as described in Attachment B (of the County of San Bernardino Greenhouse Gas Emissions Reduction Plan), but do not need to use the Screening Tables or alternative GHG mitigation analysis described in Attachment D (of the County of San Bernardino Greenhouse Gas Emissions Reduction Plan)."

The project's total GHG emissions would not exceed the County's screening threshold of 3,000 $MTCO_2e$ per year. Therefore, the project does not need to accrue points using the screening tables and is considered consistent with the GHG Reduction Plan.

As an update to the existing 2019 Manual with minimal construction GHG emissions and operational emissions, the proposed project is not anticipated to conflict with or obstruct a State plan for GHG emissions reductions. Specifically, as shown in Table 8, project-related GHG emissions would only result in a total of approximately 32 $MTCO_2e$ per year and are well below the County's 3,000 $MTCO_2e$ per year screening threshold. Comparing to other development projects, the proposed project would generate a nominal amount of GHG emissions and would not have the potential to conflict with the 2022 Scoping Plan or any other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. Impacts would be less than significant in this regard.

Greenhouse Gas Emissions Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk loss, injury or death involving wildland fires?			X	

Environmental Setting

The site has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases as reported in the *Hazardous Materials Memorandum* (Appendix F). No reported releases of hazardous materials are noted. The Memorandum notes that four (4) adjacent and adjoining facilities present a concern to soil, soil gas, and/or groundwater at the project site: Crestline Sanitation District Office Crestline Station (24516 Lake Drive), Bills ARCO (24157 Lake Drive), Mountain Area Regional Transit Authority and Lee's Automotive (621 Forest Shade), and Seven-11 Store #23818 (24156 Lake Drive).

Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant. The project involves improvements to two debris/sedimentation basins, construction of headwalls around lake inlets, improvements to the swim beach area, and implementation of an on-going lake maintenance program. Construction and operation of the project would not involve hazardous materials that may result in a significant hazard to the public or to the environment. The placement of silt associated with project O&M activities would be required to comply with existing federal, state, and local laws and regulations pertaining to the placement of fill material. Compliance with these laws and regulations would ensure impacts are less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant. Refer to Response 9(a) above.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant. Refer to Response 9(a) above.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The project site is not located on a site which is included on the Cortese List as retrieved on November 13, 2023, from the California EPA Cortese List Data Resources. Therefore, the proposed project would not create a significant hazard to the public or environment. No impacts would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not located within an airport influence area or within an airport compatibility zone as identified in San Bernardino County General Plan Hazards Map FH22 B. No private airstrips occur in the vicinity of the project site. Implementation of the proposed project would not result in a safety hazard related to an airport land use plan or resulting from the use of an airstrip in the immediate project area and no impacts are anticipated.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Crest Forest Community Plan Safety Chapter identifies the evacuation routes for the community in the event of potential fire or other natural disaster events. The following roadways are identified in the plan as designated evacuation routes: SR-138, SR-18, SR-189, Waters Drive, Crest Forest Drive, Knapps Cutoff, Lake Gregory Drive, Arosa Drive, San Moritz Drive, North Road, and Lake Drive. Lake Gregory Drive, Lake Drive, and San Moritz Drive are located in the immediate project vicinity and all provide access to the Lake Gregory Regional Park recreation area. Per the Crest Forest Community Plan, in the event of an emergency, specific evacuation routes would be designated during an emergency in order to respond to the specific needs of the situation and circumstances surrounding the disaster.

The project site is also located within the planning area for the Lake Gregory Dam Emergency Action Plan (EAP). The purpose of the EAP is to reduce risk and loss of human life and injury, and to minimize property damage in the event of an emergency situation associated with the Lake Gregory Dam. Potential emergency situations as identified in the plan may include: dam instability, felt earthquakes, extreme storm events, major spillway releases, overtopping of the dam, outlet system failure, abnormal instrumental readings, vandalism or sabotage, spillway gate failures, or failure of the dam. The plan establishes guidelines that should be followed for identification of emergency situations and action protocols in the event of an emergency. The proposed project would be limited to the identified construction areas. During the construction phase, no activities would infringe on or restrict access to the designated evacuation routes in the Project vicinity. Similarly, operation of the project would be limited to basin maintenance and sediment removal activities that would not result in impacts to adjacent roadways. The project would not impair implementation of or

physically interfere with an adopted emergency response plan or emergency evacuation plan, thus no impacts would occur.

g) Expose people or structure, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant. The project site is located within the Fire Safety Area 1 (FS1) Overlay of the San Bernardino County General Plan Hazards Overlay Map FH22 B. Development within the Fire Safety Overlay Area is guided by Chapter 82.13 of the County Development Code. The purpose of the overlay is to provide greater public safety in areas prone to wildland brush fires, by establishing additional development standards (Development Code Section 82.13.010). The FS1 overlay is characterized by areas with moderate and steep terrain and moderate to heavy fuel loading contributing to high fire hazard conditions. The Development Code requires that a notice of application or permit for development in FS areas be sent to the responsible Fire Authority for comment. Additionally, all development within FS areas must comply with development standards as outlined in Section 82.13.050 and 82.13.060 of the Development Code. Fire Authority Standards include compliance with standards required by the Responsible Fire Authority and compliance with standards and provisions of the California Building Code Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure).

The project site is located within the Crest Forest Fire Protection District. Lake Gregory Regional Park is located within the service area of two of the District's fire stations: 1) Lake Gregory Station #29, and 2) Crestline Station #25. The project's construction improvements and O&M activities would not directly expose people or structures to a significant risk of loss, injury or death in relation to wildland fires, and less than significant impacts would occur.

Hazards and Hazardous Materials Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c) 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?				X
i. Result in substantial erosion or siltation on – or off-site;				X
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on – or off-site;				X
iii. Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff; or				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

Environmental Setting

According to the *Aquatic Resources Delineation Report,* (Appendix D), the project site occurs within Lake Gregory, which outlets to Houston Creek, is tributary to Trinity River, and flows into Silverwood Lake. Silverwood Lake outlets into the West Fork Mojave River, which is ultimately tributary to the Mojave River. The report classified Lake Gregory, San Moritz Basin Channel, Lake Inlets, and Aquatic Feature 1, a small channel located along the southern shore of the lake, as USACE non-wetland waters of the United States (WoUS). The report classified the Library Debris Basin and a portion of Inlet 11 as USACE wetland WoUS. Wetland waters of the United States subject to regulation under Section 404 of the Clean Water Act.

Impact Analysis

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant With Mitigation Incorporated. The project involves the implementation of a dredging plan to enhance the safety of the Swim Beach area, flattening of the beach area, installation of headwalls around lake inlets for sediment control, improvement to two debris basins, and implementation of an on-going lake maintenance program. Proposed project activities would occur in riparian and stream areas identified to be under the jurisdiction of the California Department of Fish and Wildlife (CDFW), the Army Corps of Engineers (USACE), and the Lahontan Regional Water Quality Control Board (RWQCB) as identified within the Aquatic Resources Delineation Report.

Implementation of the project would require a Clean Water Act Section 401 Certification from the Lahontan Regional Water Quality Control Board to ensure that the Project would not violate State water quality standards. Implementation of the project would involve notification and procurement of necessary permits

and authorizations. Notification to the Lahontan RWQCB and coordination for attainment of the necessary CWA 401 Certification would ensure that the proposed project would not violate water quality standards or waste discharge requirements.

Per the requirements of the National Pollutant Discharge Elimination System (NPDES) the project contractor would be responsible for submitting to San Bernardino County, copies of the approved General Construction Permit, including an approved Stormwater Pollution and Prevention Plan (SWPPP). Best Management Practices (BMPs) to be implemented during project construction activities would be outlined in the SWPPP. The implementation of BMPs would ensure that potential impacts to water quality are effectively avoided or minimized. Implementation of Mitigation Measures HWQ-1 through HWQ-4 would further reduce impacts relative to water quality to less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The project involves a dredging plan to enhance the safety of the Swim Beach area and updates to an ongoing lake maintenance program to address sediment issues. The purpose of the project is to provide a safer attraction for the lake's visitors by creating a safe beach slope and water depth, and to enhance water quality by improving existing debris basins and the construction of headwalls at lake inlets to reduce sediment. Implementation of the project would not deplete groundwater supplies or interfere with groundwater recharge; and therefore, no impacts would occur.

c) 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?

i. Result in substantial erosion or siltation on – or off-site;

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site;

iii. Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff; or

No Impact. The project does not propose changes that would substantially alter existing drainage patters on the site, including substantially increase erosion, the rate or amount of surface runoff, or create/contribute to runoff that would exceed the capacity of existing or planned stormwater drainage sites. The project does not propose alteration of the course of a stream or river. As such, no adverse impacts regarding the alteration of drainage patterns would occur.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. Seiche or inundation conditions at Lake Gregory have the potential to be triggered by strong winds, severe storm fronts, or earthquakes. The project entails safety improvements, sediment management, and ongoing operations and maintenance. The project does not propose changes that would significantly impact the potential for inundation, seiche, tsunami, or mudflow. No impacts would occur.

Mitigation Measures

HWQ-1: **Storm Water Pollution Prevention Program.** To avoid water quality impacts on Lake Gregory during the proposed sediment removal activities a Storm Water Pollution Prevention Program shall be implemented for sediment removal and stockpiling activities.

The SWPPP must include a list of BMPs to be implanted as part of the project and a visual monitoring program to ensure the effectiveness of the Plan.

HWQ-2: **Turbidity Control.** Excavation methods shall implement the use of a silt fence or terminal berm, as practicable, to reduce impacts to water quality associated with turbidity.

HWQ-3: **Sediment Removal.** Sediment extraction from the lake shall occur only at the designated Project areas. If practicable, sediment removal activities shall be scheduled to occur during the off-season dry months.

HWQ-4: **Berm Barrier.** To minimize water quality impacts associated with disturbance during removal of sediment on the lake's shoreline, the contractor shall create a berm barrier between the lake and sediment stockpile in order to reduce any incidental drainage to the lake.

Hydrology and Water Quality Impact Conclusions

Less than significant adverse impacts are identified or anticipated when in compliance with the mitigation measures.

11. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				X
b) 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?				X

Environmental Setting

Lake Gregory and the surrounding mountain environment offers recreation opportunities for residents and visitors; however, the community is primarily residential in nature. There is limited commercial development and no industrial development in the immediate vicinity. The most prominent existing land uses around the project site are residential, and the commercial land use districts are concentrated to the west of Lake Gregory.

Impact Analysis

a) Physically divide an established community?

No impact. Development in the community of Crestline is guided by the Crest Forest Community Plan, adopted on March 13, 2007. The primary purpose of the Crest Forest Community Plan is to guide the future use and development of land within the plan area in a manner that preserves the character and independent identity of the community.

The Crest Forest Community Plan states that "Lake Gregory is a community asset that contributes to the character and quality of life in their community and that there is a need to enhance recreation facilities to meet the needs of local residents and limited tourists" *(Crest Forest Community Plan, CF1.3.2-Issues and Concerns, pg. 13).* Community priorities identified in the plan include the expansion of recreation opportunities in trail systems and open space areas located both on public and private lands for residents and visitors.

The proposed project is consistent with the Crest Forest Community Plan guidance and includes improvements to and maintenance of existing recreational opportunities at Lake Gregory. Implementation of the proposed project would result in an enhanced Swim Beach area, improved inlet infrastructure, removal of sediment loads (now and in the future) and allow for on-going routine maintenance activities. Therefore, the project would not divide the established community of Crestline.

b) 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?

No Impact. The project would not conflict with an applicable land use plan, policy, or regulation as established in the County of San Bernardino General Plan and in the Crest Forest Community Plan. The project is consistent with the following policies:

- **Policy CF/OF4.1** Prioritize and create an improvement schedule for Lake Gregory that satisfies the needs of both locals and visitors. The project proposes to update the existing Lake Gregory Operations and Maintenance (O&M) Manual (2019) to incorporate the proposed project improvements, develop a plan for establishing and maintaining the public beach area, and provide

recommendations to improve the lake fishery, lake user/angler access, and lake user safety that would further complement the lake sediment management program and help to limit sediment transported to the lake body; thereby, prioritizing Lake Gregory's maintenance schedule.

- ***Policy CF/OS 4.2*** *Ensure proper maintenance and improvements to Lake Gregory Regional Park.* The project's operation and maintenance activities will be scheduled annually during the Fall months. The project will improve the water quality, clean the lake by removing debris from the basins, remove sediment around the lake, and implement an on-going lake maintenance program; thereby, addressing Crestline Forest residents' concerns specific to the lack of proper maintenance and the need for recreational facility improvements to serve residents and tourist, as identified on the Crest Forest Community Plan.

In addition, the project is consistent with the Crest Forest Community Plan (Land Use Section CF1.3.3 goals and policies) emphasized protection of sensitive resources, the integration of natural vegetation, and open space designed to enhance the natural surroundings and preserve the community character; therefore, there are no environmental impacts due to conflicts with land use plan, policy, or regulation requirements.

Land Use and Planning Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

12. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Environmental Setting

According to the San Bernardino County Natural Resources Element (last updated on October 27, 2020), Lake Gregory is located outside of the San Bernardino Production-Consumption Region; as such, the site is not designated for mineral resources.

Impact Analysis

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. Lake Gregory was formed by the completion of an earthen-type dam on Houston Creek in 1938. The lake has been maintained for recreational purposes since then and the Lake Gregory Regional Park is currently operated by the San Bernardino County Regional Parks Department.

There are no known mineral resources identified in the Crestline Forest Area within the San Bernardino Countywide Policy Plan Mineral Resources Zones (dated October 27, 2020); and therefore, the project would not impact to mineral resources.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The lake is located outside of the San Bernardino Production-Consumption Region for mineral resources and therefore, no impacts would result to mineral resource recovery.

Mineral Resources Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

13. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) 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?			X	
b) Generation of excessive groundborne vibration of groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	

Environmental Setting

Fundamentals of Sound and Environmental Noise

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10 dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA. Similarly, Community Noise Equivalent Level (CNEL) is a measure of 24-hour noise levels that incorporates a 5-dBA penalty for sounds occurring between 7:00 p.m. and 10:00 p.m. and a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Regulatory Framework

State

The State Office of Planning and Research (OPR) Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The OPR Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. Table 9, *Land Use Compatibility for Community Noise Environments*, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Table 9
Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	70 – 85
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85
Office Buildings, Business Commercial, Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA

Notes: NA = Not Applicable; Ldn = Day/Night Average; CNEL = community noise equivalent level; dBA = A-weighted decibels
Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable – New Construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable – New construction or development should generally not be undertaken.

Source: State of California Governor's Office of Planning and Research, *General Plan Guidelines*, July 2017.

Local

County of San Bernardino

General Plan Hazard Element

The Hazards Element of the General Plan includes goals and policies aimed at the control and abatement of natural hazards, human-generated hazards, and risks due to climate change. The Hazards Element provides direction to address risks to communities and prioritizes the reduction of hazards and pollution exposure to unincorporated disadvantaged communities. To protect County residents from excessive noise, the Hazards Element contains the following goals related to the project:

Goal HZ-2: Human-generated Hazards. People and the natural environment protected from exposure to hazardous materials, excessive noise, and other human-generated hazards.

Policy HZ-2.8: Proximity to noise generating uses. We limit or restrict new noise sensitive land uses in proximity to the existing conforming noise generating uses and planned industrial areas.

Policy HZ-2.9: Control sound at the source. We prioritize noise mitigation measures that control sound at the source before buffers, soundwalls, and other perimeter measures.

San Bernardino County Code of Ordinances

The County's noise regulation is contained within the *San Bernardino County Code of Ordinances* (Code of Ordinances). The following sections of the Code of Ordinances are applicable to the proposed Project:

24.0706 Special Sound Source Standards.

C. *Power Tools and Equipment*. Except for emergency work, no person shall operate any power tools or equipment between the hours of 10:00 p.m. and 7:00 a.m. such that the power tools or equipment are plainly audible inside an occupied dwelling other than a dwelling in which the power tools or equipment may be located. Sound level measurements may be used, but are not required, to establish a violation of this Subdivision.

D. *Construction Activity*. Except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment between 7:00 p.m. and 7:00 a.m.

83.01.080 Noise

C. Noise Standards. Refer to Table 10, *San Bernardino Noise Standards for Stationary Noise Sources*.

Table 10
San Bernardino Noise Standards for Stationary Noise Sources

Affected Land Uses	7 a.m. – 10 p.m. L_{eq}	10 p.m. – 7 a.m. L_{eq}
Residential	55 dBA	45 dBA
Professional Services	55 dBA	55 dBA
Other Commercial	60 dBA	60 dBA
Industrial	70 dBA	70 dBA

Source: San Bernardino County, *San Bernardino County California Code of Ordinances, Section 83.01.080 Noise, Table 83-2, Noise Standards for Stationary Noise Sources,* adopted 2007.

G. *Exempt Noise*. The following sources of noise shall be exempt from the regulations of this Section:

3. Temporary construction, maintenance, repair or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

83.01.090 Vibrations

A. *Vibration Standard*. No ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths inches per second measured at or beyond the lot line.

C. *Exempt Vibrations*. The following sources of vibration shall be exempt from the regulations of this Section.

(2). Temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

Existing Conditions

The Project site is a lake located in a mountain area. Noise sources in the project area are typical of a park setting or recreational area and include the visitors talking, equipment running, and vehicular noise along Lake Gregory Drive, Lake Drive, and San Moritz Drive. The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Noise Measurements

In order to quantify existing ambient noise levels in the vicinity of the project site, Michael Baker International conducted five noise measurements on October 17, 2023. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The five, ten-minute measurements were taken between 10:30 a.m. and 12:00 p.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day and relate closely with the noise standards for the project area. Refer to Table 11, *Noise Measurements*.

Table 11
Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Time
1	In front of Crestline Branch San Bernardino County Library	61.7	41.3	75.6	10:39 a.m.
2	Across the street from 24539 San Moritz Drive	60.5	34.8	83.4	10:58 a.m.
3	Across the street from 24645 San Moritz Drive	55.2	32.5	76.6	11:15 a.m.
4	Across the street from Lake Gregory Community Center	56.4	33.2	79.9	11:32 a.m.
5	In front of 461 Zermatt Drive	66.0	35.7	85.0	11:50 a.m.

Notes: dBA = A-weighted decibels, L_{eq} = Equivalent Sound Level; L_{min} = Minimum Sound Level; L_{max} = Maximum Sound Level
Source: Michael Baker International, October 17, 2023.

Meteorological conditions were clear sunny skies, cool temperatures (75 degrees Fahrenheit), with light wind speeds (0 to 5 miles per hour), and low humidity. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for sound level meters. The results of the field measurements are included in Appendix G, *Noise Data*.

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The closest sensitive receptors to the storm drain improvements are a single-family residence (i.e., 24620 Lake Drive) and a school (i.e., Lake Gregory Education Center) located approximately 50 feet of the existing drain outlets. The closest sensitive receptors to the beach are a single-family residence (i.e., 24101 Lake Gregory Drive) and a library (Crestline Library) located approximately 140 feet west. The closest sensitive receptor to the

debris basin is a single-family residence (i.e., 24655 San Moritz Drive) located approximately 200 feet southeast of the debris basin.

Impact Analysis

a) 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?

Less Than Significant With Mitigation Incorporated. It is difficult to specify noise levels that are generally acceptable to everyone; noise that is considered a nuisance to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels or based on studies of the ability of people to sleep, talk, or work under various noise conditions.

Short-Term Construction Impacts

The project proposes improvements of the existing Lake Gregory public beach along the lake's swim area, storm drain improvements, and reducing sediment loading in the lake. The construction activities include constructing storm drain outlet headwall, grading at Swim Beach and South Beach, and constructing concrete cutoff wall. The whole process would take place over approximately five months and would include a site preparation phase which include temporary inflatable cofferdam installation, dewatering/clearing and grubbing, scarify and dewatering/clearing and grubbing; the grading phase; and the storm drain improvements phase. During the temporary inflatable cofferdam installation, dewatering/clearing and grubbing, scarify and dry/dewatering, clearing and grubbing phases would use pumps, sweepers/scrubbers, and tractors/loaders/backhoes. The grading phase would use cement and mortar mixers, excavators, graders, off-highway trucks, rollers, rubber-tired loaders, skid steer loaders, sweepers/scrubbers, and tractors/loaders/backhoes. The storm drain improvement phase would use cement and mortar mixers, sweepers/scrubbers, and tractors/loaders/backhoes. Typical noise levels generated by each piece of construction equipment during each phase are shown in Table 12, *Maximum Noise Levels Generated by Typical Construction Equipment*. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Construction noise levels in the project vicinity would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete phases, with each phase requiring different equipment with varying noise characteristics. These phases alter the characteristics of the noise environment generated on the site and in the surrounding community for the duration of the construction activities.

Table 12
Maximum Noise Levels Generated by Typical Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	Phase Name: Storm drain improvement L_{max} at 50 Feet (dBA)	Beach grading L_{max} at 140 feet (dBA)	Site preparation L_{max} at 200 feet (dBA)
Backhoe	20	80	71	68
Concrete Mixer Truck	40	79	70	-
Concrete Pump	20	82	73	-
Excavator	40	85	76	-
Grader	40	85	76	-
Loader	40	80	-	68
Pump	50	77	-	65
Roller	20	85	76	-
Tractor	40	84	75	72

Note:
1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, Roadway Construction Noise Model (*FHWA-HEP-05-054*), January 2006.

The closest sensitive receptors to the storm drain improvements are a single-family residence and a school located approximately 50 feet of the existing drain outlets. At the distance of 50 feet, construction noise would range from 79 to 84 dBA L_{max}, refer to Table 12. The closest sensitive receptors to the beach grading activities are a single-family residence and a library located approximately 140 feet west. At the distance of 140 feet, construction noise associated with beach grading would range from 70 to 76 dBA L_{max}, refer to Table 12. The closest sensitive receptor to the debris basin is a single-family residence located approximately 200 feet southeast of the debris basin. During the site preparation phase which includes temporary inflatable cofferdam installation, dewatering/clearing and grubbing, scarify and dewatering/clearing and grubbing, the water would be stored at the debris basin. At the distance of 200 feet, construction noise would range from 65 to 72 dBA L_{max}, refer to Table 12. Noise levels depicted in Table 12 represent maximum sound levels (L_{max}), which are the highest individual sound occurring at an individual time period. As shown in Table 12, construction noise levels could range between approximately 65 to 84 dBA L_{max} at nearest sensitive receptors, which would exceed the existing ambient noise level ranging from 55.2 to 66.0 dBA, refer to Table 12. Although sensitive receptors may be exposed to increased noise levels during project construction, construction activities are exempt from the County of San Bernardino noise thresholds as it is a normal part in the urban life and the project would be required to comply with the County of San Bernardino (Section 83.01.080[G][3]) allowable construction hours (between 7:00 a.m. to 7:00 p.m. Monday through Saturday, construction activities are not allowed on Sundays or nationally recognized holidays).

As discussed in Section 4, *Biological Resources,* it is likely that Lake Gregory and the surrounding habitat functions as a migratory stopover for bird species. Indirect temporary noise impacts have the potential to occur to nesting birds due to increased noise levels during construction activities. Implementation of Mitigation Measure BIO-2 would ensure that indirect temporary noise impacts to nesting birds from project construction remain less than significant. Overall, the project would result in less than significant impacts regarding construction noise with implementation of Mitigation Measure BIO-2.

Operations

Upon project construction completion, routine maintenance and inspection visits would occur; however, there would not be any significant increase in vehicular trips to the project area generated by the project compared to existing conditions. Further, on-going operation of the project would not introduce any new noise-generating sources.

Although lake dredging would not be required as a part of regular and normal lake maintenance activities, dredging would be conducted when sufficient sediment has accumulated in the lake to hinder normal lake operations or reduced the capacity of the lake sufficiently to necessitate removal of the sediment. Dredging activities would occur near the Swim Beach area to maintain operation of the public beach area. As discussed in *Section 4*, *Biological Resources* it is likely that Lake Gregory and the surrounding habitat functions as a migratory stopover for bird species. As such, indirect temporary impacts have the potential to occur to nesting birds due to increased noise levels during dredging. Lake dredging can be accomplished with either a boat mounted dredge or conventional construction equipment such as a wheeled-loader and excavator. Excavator clamshell dredge/backfill equipment typically used for dredging produce noise levels of approximately 77 dBA at 50 feet.[19] The closest sensitive receptors to dredging activities are a single-family residence and a library located approximately 140 feet west. At the distance of 140 feet, dredging could expose sensitive receptors to temporary elevated noise levels (68 dBA). However, dredging would occur within the County of San Bernardino (Section 83.01.080[G][3]) allowable construction hours (between 7:00 a.m. to 7:00 p.m. Monday through Saturday, construction activities are not allowed on Sundays or nationally recognized holidays). Additionally, the O&M Manual provides Best Management Practices (BMPs) during dredging, stockpiling, dewatering operations. Further, implementation of Mitigation Measure BIO-2 would ensure that indirect temporary noise impacts to nesting birds from project-related dredging remain less than significant. Therefore, less than significant operational noise impacts would result.

b) Generation of excessive groundborne vibration of groundborne noise levels?

Less Than Significant Impact.

Construction

Project construction activities can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The California Department of Transportation (Caltrans) *Transportation and Construction Vibration Manual* identifies various vibration damage criteria for different building classes. This evaluation uses the Caltrans architectural damage criterion for continuous vibrations at new residential buildings of 0.5 inch-per-second

[19] Epsilon Associates, Inc., *Hudson River PCBs Superfund Site, Phase 1 Final Design Report Attachment J - Noise Impact Assessment, Table 4-1, Reference Sound Level Data – Dredging and Barging Operation*, March 21, 2006.

(inch/second) PPV. The types of construction vibration impacts include human annoyance and building damage.

Typical vibration produced by construction equipment is illustrated in Table 13, *Typical Vibration Levels for Construction Equipment*.

Table 13
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inch/sec)	Approximate peak particle velocity at 140 feet (inch/sec)[1]
Large bulldozer	0.089	0.0134
Small bulldozer	0.003	0.0005

Notes:
(1) Calculated using the following formula:
$PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$
where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
D = the distance from the equipment to the receiver

Source: Caltrans, *Transportation and Construction Vibration Guidance Manual*, April 2020.

The project would use equipment with noticeable vibrations during beach grading phase. The nearest structure with sensitive receptors is a library located approximately 140 feet west of the beach. As indicated in Table 13, vibration velocities from typical construction equipment used during project construction would range from 0.0005 to 0.0134 in/sec PPV at 140 feet from the source of activity, which would not exceed the 0.5 in/sec PPV threshold. Furthermore, County of San Bernardino Development Code Section 83.01.090I(2) states that temporary construction is exempt from the regulations of the vibration section if construction activities occur during the hours of 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays. As such, the impacts would be less than significant.

Operational

The proposed project is a lake sediment management project that would not generate additional operational groundborne vibration that does not already exist and felt by surrounding uses. It should be acknowledged that lake dredging would be conducted when sufficient sediment has accumulated in the lake to hinder normal lake operations or reduced the capacity of the lake sufficiently to necessitate removal of the sediment. As discussed above, lake dredging can be accomplished with either a boat mounted dredge or conventional construction equipment such as a wheeled-loader and excavator. Equipment used for dredging do not typically generate extensive vibration levels. Additionally, dredging would occur within the County of San Bernardino (Section 83.01.080[G][3]) allowable construction hours (between 7:00 a.m. to 7:00 p.m. Monday through Saturday, construction activities are not allowed on Sundays or nationally recognized holidays), and the O&M Manual provides BMPs during dredging operations. Further, the proposed project would not involve railroads or substantial heavy truck operations, and therefore would not result in vibration impacts at surrounding uses. Thus, less than significant impact would occur in this regard.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant. The project site is not located within two miles of an airport or public use airport. The nearest airport the San Bernardino International Airport located approximately nine miles to the south. Additionally, the project site is not located within the vicinity of a private airstrip or related facilities. Therefore,

project implementation would not expose people residing or working in the project area to excessive noise levels associated with aircraft. As such, the impacts would be less than significant.

Mitigation Measures

Refer to Mitigation Measure BIO-2.

Noise Impact Conclusions

Compliance with the mitigation measure above would ensure that impacts remain less than significant.

14. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Environmental Setting

Residential and commercial development exist adjacent to the project site as well as all around the lake. The land use surrounding the lake is primarily residential to the north, east, and south.

Impact Analysis

a) 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)?

No Impact. Implementation of the project would involve improvements to the Swim Beach area, installation of headwalls around lake inlets for sediment control, improvement to two debris basins, and implementation of an on-going lake maintenance program. The project would improve recreational features and enhance the lake's water quality. Related construction activities would be short-term and would not provide long-term employment that would require people to move to the area. The Project would not directly or indirectly induce population growth in the area. The proposed project would have no impacts on population or housing in the area.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There are no homes presently on the site. As such, construction activities would not displace existing people, housing, or structures. The proposed project would have no impacts on existing people or housing in the area.

Population and Housing Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

15. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?				X
ii. Police protection?				X
iii. Schools?				X
iv. Recreation/Parks?			X	
v. Other public facilities?				X

Environmental Setting

Lake Gregory is located within the Crest Forest Fire Protection District's service area of two of the District's fire stations: 1) Lake Gregory Station #29, and 2) Crestline Station #25. The San Bernardino County Public Works Department is responsible for the year-around operation and maintenance of the lake.

Impact Analysis

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, Police protection, Schools, Recreation/Parks, Other public facilities?*

Fire Protection: **No Impact.** Construction improvements and routine operation/maintenance of the project is not anticipated to increase the demand for emergency response in the region for the duration of the Project's construction and operation. The project would not create the need for new or expanded fire facilities and/or services. No impacts would occur.

Police Protection: **No Impact.** Construction improvements and routine operation/maintenance of the project is not anticipated to increase the demand for emergency response in the region for the duration of the Project's construction and operation. The project would not create the need for new or expanded police facilities and/or services. No impacts would occur.

Schools: **No Impact.** The project involves improvements and routine operation/maintenance of the lake and would not generate population growth that would result in an increased need for school services or necessitate the construction of new school facilities or alter enrollment. No impacts would occur.

Parks: **Less than Significant Impact.** Construction of the proposed improvements to the Swim Beach area include flattening the beach area to a uniform engineered slope, a maintenance plan to maintain the slope, and a dredging plan to establish and maintain depth control of the 9 to 10-foot safety zone for continued use of the existing floating waterpark apparatus. Construction of the Swim Beach slope and dredging to maintain the safety zone would result in long term beneficial impacts. Beneficial impacts include the improvement of the recreational features, which serve as a venue for day camps, sporting events, training, and education.

Construction of the proposed improvements to the existing debris basins would result in long term beneficial impacts including public safety, sediment control, and improved water quality.

Other Public Facilities: **No Impact.** No existing public service facilities are located at the site or serve it, and the proposed project would not involve the introduction of a temporary or permanent human population into this area. Based on these factors, the proposed project would not result in any long-term impacts to other public facilities. No impacts would occur.

Public Services Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

16. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Environmental Setting

Lake Gregory Regional Park has been in operation since the completion of the Lake Gregory Dam in 1938. Lake Gregory Regional Park offers a variety of recreational opportunities to its patrons including fishing, boating, swimming, picnic facilities, a skate park, a dog park, and walking and fitness trails. Lake Gregory Regional Park welcomes approximately 100,000 tourists each year. Within the regional park, Lake Gregory encompasses 84 surface acres for swimming and water sports. The Swim Beach area is currently a venue for day camps, sporting events, training, and education. The Lake Gregory Water Park operational season is from Memorial Day through Labor Day each year. From Labor Day through Memorial Day the waterpark is closed to the public and is non-operational.

Impact Analysis

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?

No impact. The proposed improvements at Lake Gregory would address the deterioration of the existing Swim Beach area, sediment issues, and include ongoing operation and maintenance activities. Implementation of the project would not substantially increase the use of the existing neighborhood and regional parks, other recreational facilities, or lead to a substantial physical deterioration of park facilities. No impacts would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. The project improvements would continue to foster a safe recreational attraction for park visitors and improve water quality and ecosystem health. Implementation of the project would address the current deterioration of the Swim Beach area and overall lake area. Construction activities of the swim areas would entail the removal of accumulated sediment, largely from storm runoff, and the flattening of the Swim Beach to address safety concerns including large potholes, depressions, and steep slope. A dredging plan has been developed to maintain depth control for continued use of the existing floating waterpark apparatus. Construction of the swim area would result in long term beneficial impacts, including improved safety, water quality, and aesthetics of the lake.

Recreation Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

17. TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?				X
d) Result in inadequate emergency access?				X

Environmental Setting

Circulation Goal (CF3.2), of the County of San Bernardino Crest Forest Community Plan, is to maintain the mountain character of the community which could be impacted by roads and traffic generated from the region and the community. The roadway network around Lake Gregory is designated County Scenic Route within the NR-3 Scenic Routes and Highways Policy Map. The roadway network around Lake Gregory includes Lake Drive to the north and northeast and Lake Gregory Drive to the west, both designated Mountain Major Highways, and San Moritz Lane to the south and southeast designated Mountain Secondary Highway.

> "Lake Drive is a two-lane mountain major highway that extends eastward from State Route 138 along the northern shore of Lake Gregory before becoming Arosa drive at an intersection with San Moritz Drive just east of the lake.
>
> Lake Gregory Drive is a two-lane mountain major highway that begins at an intersection with Lake Drive just west of Lake Gregory and continues southeasterly before terminating at an intersection with SR-189.
>
> San Moritz Drive is a two-lane mountain secondary highway that originates immediately west of Lake Gregory at an intersection with Lake Gregory Drive and continues along the southern shore until terminating at an intersection with Lake Drive immediately east of the lake." *(Crest Forest Community Plan, CF3.2-Circulation and Infrastructure, pg. 29).*

Impact Analysis

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. The project would not conflict with a program, plan, ordinance, or policy addressing the circulations system because the project's construction improvements are limited to the lake site and the on-going O&M activities do not involve changes to a circulation system; and therefore, no impacts would occur.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than a Significant Impact. The project's construction improvements and maintenance activities are consistent with CEQA Guidelines Section 15064.3 (b) Criteria for analyzing transportation impacts:

(2) Land Use Projects. The project's construction improvements and ongoing maintenance activities will be temporary, and the vehicles exporting the debris material will use the existing transit corridor located around Lake Gregory classified as a Mayor Highway and a Secondary Highway. The temporary maintenance activities are presumed to cause less than significant transportation impacts.

(3) Transportation Projects. The project is not a transportation project.

(4) Qualitative Analysis. The Level of Services conducted in 2004 identified the future Level of Service for the year 2030 and no additional Level of Service impacts are identified with the project's maintenance activities.

(5) Methodology. The lead agency has discretion to choose the most appropriate methodology to evaluate the project's VMT, which was analyzed in the Crest Forest Community Plan in 2004 including projections for the year 2030. (Crest Forest Community Plan, *Table 4: Existing and Future Roadway Operating Conditions*, pg. 31).

The Crest Forest Community Plan Circulation Section CF 3.2 identified roadways operating at acceptable Level of Service (LOS) in 2004. Lake Drive was reported to operate at LOS B, Lake Gregory Drive was reported to operate at LOS B, and San Moritz Drive was reported to operate at LOS A. The future 2030 Operating Conditions for Lake Drive are anticipated to operate at LOS B, Lake Gregory is anticipated to operate at LOS C, and San Moritz Drive is anticipated to operate at LOS A.

Implementation of the project would result in a temporary increase in traffic during maintenance activities exporting dredge/sediment material from temporary stockpiles located at Crestline Library and Camp Switzerland. The project would not result in the creation of new recreational facilities and is not anticipated to generate new park patrons. Therefore, no impacts to the existing roadways that would be defined as significant per the policies of the Crest Forest Community Plan or inconsistent with CEQA Guidelines section 15064.3 (b) are anticipated.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The project is not proposing geometric design features that increase hazards, such as sharp curbs or dangerous intersections. The site will not have any changes regarding the current transportation network. The project's operations and maintenance activities will require heavy equipment vehicles such as tracked excavators with a minimum reach of 30-feet, wheeled or tracked mini-skid steer, and three axle 10-yard dump truck. Temporary staging for the equipment access areas will be determined to minimize impacts to habitats and operation activities; however, no geometric design features are proposed. Therefore, no impact would occur.

d) Result in inadequate emergency access?

No Impact. The project annual maintenance improvements to remove debris from the basin including sediment accumulated from the westerly tip of the lake adjacent to the Crestline Library and sediment accumulation from the southerly tip of the lake near Houston Creek South outlet to reduce siltation entering the lake and on-going maintenance program would not result in changes to internal or external park circulation. Access to the park would not be changed by on-going implementation of the proposed project. No impacts to circulation system or access would occur; therefore, existing emergency access will not be affected.

Transportation Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

18. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project 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, lace, 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:				
a) Listed or eligible for listing in California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
b) 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 I of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision I of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Environmental Setting

Lake Gregory is not considered a cultural resource, as defined in the Public Resources Code Section 21074.

CEQA Assembly Bill 52 (AB 52): "Legislature requirements regarding tribal cultural resources for CEQA in Assembly Bill 52 (AB 52) that took effect July 1, 2015, requiring consultation with California Native American Tribes and consideration of tribal cultural resources in the CEQA process. (*Cultural Resources Assessment, Lake Gregory Regional Park Sediment Management Project by BCR Consulting, 2024*)

AB 52 requires that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include Tribal Cultural Resources (TCRs), the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the Public Resources Code defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes. Section 21074(a) of the Public Resource Code defines TCRs for the purpose of CEQA as:

1. Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    A. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
    B. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
    C. 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 I of Section 5024.1. In applying the

criteria set forth in subdivision I of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Summary of AB 52 Consultation

AB52 consultation was concluded on April 22, 2024. The Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN, and formerly known as the San Manuel Band of Mission Indians) requested consultation with the County. As a result of AB 52 consultation with the County, the YSMN requested the following five measures be applied to the project to further reduce the potential impact to tribal cultural resources:

CR-1: Unanticipated Discovery – Cultural Resources. In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

CR-2: Cultural Monitoring and Treatment Plan. If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CR-4: Human Remains. If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

TCR-1: Unanticipated Discovery – Cultural Resources/Tribal Cultural Resources. The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CR-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR-2: Record Sharing. Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the Lead Agency for dissemination to the Yuhaaviatam of San Manuel Nation. The Lead Agency and/or applicant shall, in good faith, consult with Yuhaaviatam of San Manuel Nation throughout the life of the project.

Impact Analysis

a) 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)?

No Impact. The California Register of Historical Resources Code Section 5020 (K) is defined as "Local register of historical resources" and means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution. Lake Gregory is not listed in the California Department of Parks and Recreation as a historical resource, it has not been recognized pursuant to a local ordinance or resolution.

To be eligible for listing in the California Register of Historical Resources, Lake Gregory would have to meet the following criteria:

- Criterion 1: Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
- Criterion 2: Associated with the lives of persons important to local, California or national history.
- Criterion 3: Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
- Criterion 4: Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Lake Gregory does not meet the eligibility criteria of historical resources designation and is not listed in the California Department of Parks and Recreation; therefore, ongoing maintenance of Lake Gregory's sediment will not impact historical resources.

b) 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 I of Public Resources Code Section 5024.1?

Less than Significant Impact with Mitigation Incorporated. Public Resources Code Section 5024.1I states that a resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places criteria:

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

Lake Gregory is a man-made lake naturally fed by storm runoff and snow melt form the east and west forks of Houston Creek. Although Lake Gregory offers recreational opportunities to residents and visitors, is does not meet the criteria under Section 5024.1I above stated, to be eligible to qualify as a historical resource.

As a result of AB52 consultation, the YSMN provided information stating the project area exists within Serrano ancestral territory and, therefore, is of interest to the Tribe. Due to the nature and location of the proposed project and given the Tribe's Cultural Resources Management Department's present state of knowledge, the YSMN concluded that they do not have any concerns with the project's implementation, as planned, at this time. YSMN requests that the following language be made a part of the project/permit/plan conditions. These five measures have been incorporated into the IS/MND and are identified as mitigation

measures TCR 1-2 listed below, and mitigation measures CR-1, CR-2, and CR-4 provided in Section 5 Cultural Resources.

Mitigation Measures:

TCR 1: Unanticipated Discovery – Cultural Resources/Tribal Cultural Resources.
The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CR-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR 2: Record Sharing
Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the Lead Agency for dissemination to Yuhaaviatam of San Manuel Nation. The Lead Agency shall, in good faith, consult with the Yuhaaviatam of San Manuel Nation throughout the life of the project.

Tribal Cultural Resources Conclusions

Potentially significant adverse impacts were identified to Tribal cultural resources, and mitigation measures are required. With the implementation of mitigation measures CR-1, CR-2, CR-3, TRC-1 and TRC-2, impacts to Tribal Cultural Resources would be less than significant.

19. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) 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?				X
d) 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?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Environmental Setting

There are existing utility connections within the Project area as follows:

- Water: Crestline Village Water District (CVWD)
- Wastewater: Crestline Sanitation District
- Stormwater Drainage: San Bernardino County Flood Control District
- Electricity: Southern California Edison (SCE)
- Natural Gas: Southern California Gas Company (SoCalGas)
- Telecommunications: (Spectrum)

Impact Analysis

a) 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?

No Impact. Project construction improvements and on-going O&M activities would accommodate the existing use of the lake and would not increase the use or capacity of the lake. The project does not require or result in the relocation or construction of new or expanded utility services, and as such, would not cause significant environmental effects. No impact would occur.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. According to CVWD's 2020 Urban Water Management Plan (UWMP), water supplies are expected to exceed water demand for the next 20 years during normal, dry and multiple dry years. CVWD obtains its water from local wells in a fractured bedrock aquifer. When the well supply cannot meet demands, imported water supplies are purchased from the Crestline-Lake Arrowhead Water Agency (CLAWA), a State Water Project (SWP) Contractor and local retail and wholesale water supplier to the mountain area. All of the water which CLAWA delivers comes from Silverwood Lake, a facility of the SWP. CLAWA has entitlement of up to 5,800 acre-feet (AF) of water annually from the SWP pursuant to its contract with the Department of Water Resources (DWR). In addition, CLAWA supplements its SWP supply by receiving permits in 1990 from the State Water Board to divert up to 566,280 hundred cubic feet (CCF) (or, 1,300 AF) of water annually from Houston Creek, which flows naturally into Silverwood Lake. On average, imported water makes up one-half of CVWD's annual supply. Neither recycled water nor non-potable water will be a part of CVWD's supply because these uses are prohibited by the California Regional Water Quality Control Board – Lahontan Region. CVWD plans to bring two new wells online by 2025, with one additional well every five years thereafter.

The project would not increase demand or production of water over the long term and would not require new connections to CVWD's service area. The amount of water for construction purposes (i.e., removal of accumulated sediments, debris/sediment basin work) is considered less than significant because the project would be conducted within the existing CVWD entitlements to potable water. Based on the limited and short-term demand for potable water during project construction, sufficient water supplies are available to serve the project, as indicated in CVWD's 2020 Urban Water Management Plan (UWMP). No adverse impacts to water supplies would occur.

c) 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?

No Impact. The proposed project would not develop any housing or human-occupied structures that would require connection to CVWD's wastewater collection system. In addition, the project does not propose physical structures that would require wastewater infrastructure connections. The site has existing wastewater connections and no new connections to CVWD's wastewater collection system would be required. Therefore, CVWD has adequate capacity to serve the project's wastewater demand. No adverse impacts would occur.

d) 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?

No Impact. The project area is currently served by Athens Services, with waste pickup facilitated by Burrtec Waste Industries. The site is located approximately 7.3 miles west of the Heaps Peak Transfer Station. According to the CalRecycle Solid Waste Information System (SWIS)[20], the Heaps Peak Transfer Station has a permitted maximum daily tonnage of 600 tons per day. Beyond the Transfer Station, the nearest landfills are either the Landers Landfill or the Victorville Landfill. The Landers Landfill has a maximum

[20] California Department of Resources Recycling and Recovery, Solid Waste Information System (SWIS) website, https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/2690 Accessed October 4, 2023.

permitted capacity of 1,200 tons per day, and a remaining capacity of 11,148,100 cubic yards (CY), with a maximum permitted capacity of 13,983,500 CY. The Victorville Landfill has a maximum permitted capacity of 3,000 tons per day, and a remaining capacity of 81,510,000 CY, with a maximum permitted capacity of 83,200,000 CY. Both landfills permit thousands of tons of waste per day, which is beyond what the expected amount of waste would be generated by the construction of the proposed project improvements. Furthermore, the proposed project is not anticipated to generate any operational waste beyond the existing waste generated by users of the lake. Waste generated by the project is not expected to significantly impact solid waste collection systems. Therefore, no impacts would occur.

e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

No Impact. State, County, and local agencies with regulatory authority related to solid waste include the California Department of Resources Recycling and Recovery (CalRecycle) and San Bernardino County. Regulations specifically applicable to the proposed project include the California Integrated Waste Management Act of 1989 (AB 939).

The Integrated Waste Management Act, which requires every City and County in the State to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan, identifies how each jurisdiction will meet the State's mandatory waste diversion goal of 50 percent by and after 2000. The diversion goal was increased to 75 percent by 2020 by SB 341. The County of San Bernardino Solid Waste Management Division (SWMD) is responsible for the operation and management of the solid waste disposal system which consists of 5 regional landfills, 17 MRFS, 8 transfer stations, and 7 construction/demolition and inert debris processing facilities. According to the Countywide Integrated Waste Management Plan, roughly 70 percent of total solid waste was diverted from landfills in 2016. San Bernardino County Development Code Chapter 84.24, Solid Waste/Recyclable Materials Storage, stipulates standards and regulations for the collection and management of solid waste in the County. Compliance with the above-listed regulations would prevent conflict with statues and regulations related to solid waste. Therefore, no impacts would occur.

Utilities and Service Systems Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

20. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project?				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) 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?			X	
c) 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?				X
d) 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?				X

Environmental Setting

Lake Gregory is surrounded by steep sloping terrain and heavy vegetative fuel loading and is located within a Very High Fire Hazard Severity Zone (VHFHSZ) within a State Responsibility area (SRA), according to the California Department of Forestry and Fire Protection's (CALFIRE) Fire Hazard Severity Zone map for Southwest San Bernardino County, dated November 7, 2007. Since the project site is located within an SRA, CALFIRE would be responsible for wildland fire prevention and protection. Additionally, San Bernardino County General Plan Hazards Overlay Map sheet FH22B specifies that Lake Gregory is within Fire Safety Area 1 (FS1). This designation encompasses mountainous regions and valley foothill areas throughout the County and is characterized by steep terrain with moderate to heavy fuel loading.

Impact Analysis

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project does not involve the construction of a habitable facility or infrastructure that would interfere with ay adopted emergency response plans because the project is limited to activities at Lake Gregory. Several existing roadways connect to the Lake Gregory Regional Park recreational area are designated as evacuation routes by the Crest Forest Community Plan Safety Chapter, and no alterations are proposed. Therefore, the project would not affect the implementation of an adopted emergency response or evacuation plan, and no impacts are anticipated in this regard.

b) 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?

Less Than Significant Impact. According to the San Bernadino County General Plan Hazards Overlay Map FH22 B, the project site is located within Fire Safety Area 1 (FS1). This map is defined by areas with moderate to steep terrain, and the potential to contribute to fire hazard conditions though heavy fuel loading. Since the site has an FS1 designation, any associated development must adhere to specific development standards (Development Code Section 82.13.010) that are designed to maximize public safety in brush fire prone areas. Additionally, the Development Code requires that a notice of application or permit is sent to the responsible

Fire Authority for comment on any proposed development. Compliance with these existing regulatory practices will reduce potential impacts to less than significant.

c) *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?*

No Impact. Refer to Response 20(a) above.

d) *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?*

No Impact. Project activities include the construction of an in-water stabilization wall, flattening of the Swim Beach area to a uniform 12:1 slope, and inlet improvements to remediate erosion damage, ultimately reducing sediment load into the lake . These proposed improvements are intended to mitigate any potential risks associated with downslope or downstream flooding, landslides, or other types of drainage changes. Therefore, no impacts to drainage changes, downslope or downstream flooding, or post-fire slope instability is anticipated.

Wildfire Impact Conclusions

No significant adverse environmental impacts are identified or anticipated, and no mitigation measures are required.

21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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, substantially 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?		X		
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)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

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, substantially 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?

Less Than Significant with Mitigation Incorporated. The project involves construction improvements to the Swim Beach area including South Beach, improvements to lake inlets, and implementation of an on-going lake maintenance program. Additionally, the project facilitates the implementation of on-going sediment management within the lake including San Moritz Channel Basins and Library Basin, as well as regular channel maintenance to alleviate future sediment accumulation. Analysis of the potential environmental impacts indicates potentially significant environmental impacts to Biological Resources, Cultural Resources, and Hydrology/Water Quality. These impacts are limited to construction activities and can be mitigated to less than significant impact through the implementation of MM BIO-1 and 2, MM-CUL 1, 2, and 3, and MM HWQ 1, 2, 3, and 4. Therefore the project will not significantly 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.

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)?

Less Than Significant. There are no impacts associated with the project that are considered cumulatively adverse or unfavorable. The project is not anticipated to generate significant amounts of air pollutants, traffic, or noise. Given that the environmental impacts would occur within previously disturbed areas, cumulative impacts to biological or cultural resources are also not anticipated to be significant. In addition, mitigation

measures are incorporated that would reduce impacts to less than significant level. No significant cumulative adverse impacts are identified.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less Than Significant. The project would not cause substantial long-term adverse effects on human beings, either directly or indirectly. Construction activities would temporarily increase ambient noise levels for areas surrounding Lake Gregory, while adhering to the County's noise regulations exclude impacts resulting from temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays. Adhering to the County's noise ordinance would ensure temporary impacts from construction would be less than significant. The project would not be used for storing any toxic or hazardous materials nor does its construction and operation involve this use, and therefore, potential impacts to human beings would be less than significant.

SECTION 5 - SUMMARY OF MITIGATION MEASURES

The following mitigation measures were identified to reduce or avoid potential environmental impacts to less than significant.

BIOLOGICAL RESOURCES

BIO-1: **Pre-Construction Survey**. Prior to project implementation, a pre-construction survey will be conducted within the appropriate blooming period(s) to ensure no special status plant species are present or will be impacted within the proposed impact area. If no special-status plant species are found during the pre-construction survey, no further mitigation is required and there will be no impact to special-status plant species. If populations of special-status plants are found during the pre-construction survey and they are located within temporary impact areas, a habitat restoration plan will be prepared to minimize impacts to a less than significant level. If populations of special-status plants are found within permanent impact areas, off-site mitigation will be necessary in consultation with CDFW to reduce impacts to less than significant.

BIO-2: **Nesting Bird Surveys.** Prior to commencing project activities (including construction of improvements and future maintenance) during the nesting season (December 15-September 15), a designated qualified biologist shall survey the project site and a biologically defensible buffer distance for both diurnal and nocturnal nesting birds. Surveys shall be conducted by the designated qualified biologist at the appropriate time(s) of day, no more than three business days prior to commencement of project activities. If an active bird nest is located, the designated qualified biologist shall implement and monitor specific avoidance and minimization measures as specified in a CDFW-approved Nesting Bird Plan. The NBP includes project specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the project complies with all applicable laws related to nesting birds and birds of prey. The NBP also includes monitoring protocols; survey timing and duration; the creation, maintenance, and submittal of a bird nesting log to CDFW; and project-specific avoidance and minimization measures. Avoidance measures include project phasing and timing, monitoring of project-related noise, sound walls, and buffers.

CULTURAL RESOURCES

CR-1: **Unanticipated Discovery – Cultural Resources.** In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

CR-2: **Cultural Monitoring and Treatment Plan**. If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CR-3: **Paleontological Monitoring Program**. If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are identified, a paleontological monitoring program shall be considered for the remainder of the Project activities. Any proposed program shall follow the current guidelines set forth by the San Bernardino County Museum.

CR-4: **Human Remains.** If human remains or funerary objects are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately, and within 24-hours. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

HYDROLOGY AND WATER QUALITY

HWQ-1: **Stormwater Pollution Prevention Program.** To avoid water quality impacts on Lake Gregory during the proposed sediment removal activities a Storm Water Pollution Program shall be implemented for sediment removal and stockpiling activities. The SWPPP must include a list of BMPs to be implanted as part of the project and a visual monitoring program to ensure the effectiveness of the Plan.

HWQ-2: **Turbidity Control.** Excavation methods shall implement the use of a silt fence or terminal berm, as practicable, to reduce impacts to water quality associated with turbidity.

HWQ-3: **Sediment Removal.** Sediment extraction from the lake shall occur only at the designated project areas. If practicable, sediment removal activities shall be scheduled to occur during the off-season dry months.

HWQ-4: **Berm Barrier.** To minimize water quality impacts associated with disturbance during removal of sediment on the lake's shoreline, the contractor shall create a berm barrier between the lake and sediment to be removed in order to reduce any incidental drainage to the lake.

TRIBAL CULTURAL RESOURCES:

TCR-1: **Unanticipated Discovery – Cultural Resources/Tribal Cultural Resources.** The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CR-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR-2: **Record Sharing.** Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the Lead Agency for dissemination to the Yuhaaviatam of San Manuel Nation. The Lead Agency and/or applicant shall, in good faith, consult with Yuhaaviatam of San Manuel Nation throughout the life of the project.

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