

Substitute Environmental Document  
for the Santa Clara Lakes (Elizabeth Lake, Lake  
Hughes, and Munz Lake) Nutrients TMDL

Prepared under the California Environmental Quality Act (CEQA)  
Requirements of a Certified Regulatory Program

California Regional Water Quality Control Board

Los Angeles Region

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## 1. EXECUTIVE SUMMARY

The California Regional Water Quality Control Board – Los Angeles Region (Regional Water Board) is the Lead Agency for evaluating the environmental impacts of the proposed Total Maximum Daily Load (TMDL) for Nutrients in Elizabeth Lake, Munz Lake, and Lake Hughes (Santa Clara Lakes). This Substitute Environmental Document (SED) analyzes environmental impacts that may occur from reasonably foreseeable methods of implementing the TMDL. This SED is based on a proposed TMDL that will be considered by the Regional Water Board, and if approved by the Regional Water Board, implemented through an amendment to the Water Quality Control Plan, Los Angeles Region (Basin Plan). The proposed TMDL is described in the Staff Report, Tentative Board Resolution, and Tentative Basin Plan Amendment, which are available on the Regional Water Board’s website. This SED analyzes foreseeable methods of compliance with the TMDL and provides the public information regarding environmental impacts, mitigation, and alternatives in accordance with the California Environmental Quality Act (CEQA).

The SED will be considered by the Regional Water Board when the Regional Water Board considers adoption of the TMDL as a Basin Plan amendment. Approval of the SED is separate from approval of a specific project alternative or a component of an alternative. Approval of the SED refers to the process of: (1) addressing comments, (2) confirming that the Regional Water Board considered the information in the SED, and (3) affirming that the SED reflects independent judgment and analysis by the Regional Water Board (Section 15090 of CEQA Guidelines (Title 14 of California Code of Regulations)).

A TMDL to address nutrients in the Santa Clara Lakes is required under section 303 of the Clean Water Act. Water quality in the Santa Clara Lakes is impaired by elevated nutrient levels and eutrophic conditions, as documented in current and proposed State of California 303(d) lists of impaired waterbodies. Nutrient loading to the Santa Clara Lakes results in impairments of beneficial uses associated with water supply (MUN), aquatic life (WARM, WILD, and RARE), and recreation (REC 1 and REC 2). The objective of the TMDL is to restore the beneficial uses of the Santa Clara Lakes that are currently impaired by nutrients, in accordance with Clean Water Act section 303(d).

The TMDL assigns waste load allocations (WLAs) to point sources and load allocations (LAs) to nonpoint sources and provides for a 15 year implementation schedule. WLAs will be implemented through the Los Angeles County Municipal Separate Storm Sewer System (MS4) permit, or for additional responsible entities in the future, MS4 permits under Phase II of the United States Environmental Protection Agency (U.S. EPA) Stormwater Permitting Program; or the residual designation authority of the state under CWA section 402(p)(2)(E), and other applicable regulatory programs. LAs will be implemented through regulatory mechanisms that implement the State Board’s 2004 Nonpoint Source Implementation and Enforcement Policy, such as waste discharge requirements (WDRs), waivers of WDRs, and prohibitions.

The TMDL implementation plan includes lake management strategies that will be implemented directly on or near the lake, watershed strategies for runoff throughout the watershed to treat and reduce nutrient loading to the lake, and possible upgrades to the Lake Hughes Wastewater Treatment Facility (WWTF) and onsite wastewater treatment systems (OWTS) if deemed necessary. Potential adverse impacts to the environment as a result of TMDL implementation stem principally from lake management strategies such as dredging, runoff best management practices (BMPs) such as shoreline buffering, and possible upgrades to the Lake Hughes WWTF and OWTS.

This SED analyzes four program alternatives and several implementation alternatives (see Sections 4 and 5 of this SED for a description of the alternatives) that encompass actions within the jurisdiction of the Regional Water Board and implementing municipalities and agencies. A No Project Alternative is analyzed to allow decision makers to compare the impacts of approving a proposed alternative and its components compared with the impacts of not approving the proposed alternative. The SED analyzes the potential environmental impacts in accordance with significance criteria widely accepted by municipalities and government agencies in the Santa Clara Lakes watershed for CEQA review.

CEQA requires the Regional Water Board to conduct a program-level analysis of environmental impacts (Public Resources Code §21159(d)). This analysis is a program-level analysis. Public Resources Code Section 21159(c) requires that the Environmental Analysis take into account a reasonable range of:

- (1) Environmental, economic, and technical factors,
- (2) Population and geographic areas, and
- (3) Specific sites.

A “reasonable range” does not require an examination of every site, but a reasonably representative sample of them. The statute specifically states that the section shall not require the agency to conduct a “project-level analysis” (Public Resources Code § 21159(d)). Rather, a project-level analysis must be performed by the responsible parties that are required to implement the requirements of the TMDL (Public Resources Code §21159.2). Notably, the Regional Water Board is prohibited from specifying the manner of compliance with a WDR or other order (Water Code §13360), and accordingly, the actual environmental impacts will necessarily depend upon the compliance strategy selected by responsible parties.

Approval of projects (i.e., project alternatives or components of project alternatives) refers to the decision of either the implementing municipalities or agencies to select and carry out an alternative or a component of an alternative (Section 5 of this SED summarizes the components that comprise the project alternatives analyzed in this SED). The components assessed at a project level have specific locations that will be determined by implementing municipalities and agencies. The project-level components will be subject to additional environmental review, including review by cities and municipalities implementing TMDL projects.

Many of the specific projects analyzed in this SED will involve construction and earth moving. The potential impacts from these projects can include, for example, dust generation from excavation, habitat disturbance, noise associated with construction, air emissions associated with vehicles to deliver materials during construction, and traffic and wear and tear on local roads associated with increased vehicle trips. These foreseeable impacts are analyzed in Section 6 of this SED. To address the environmental and nuisance impacts from these activities, responsible parties can employ a variety of mitigation measures. Generally accepted and recognized mitigation measures for construction projects on the scale of these projects include dust suppression, timing of activities and buffering to avoid breeding seasons for sensitive species, phasing of lake management activities to allow habitat recovery, management of traffic by planning construction activities for certain times of the day, mitigation of excessive noise by planning construction activities for certain times of the day, and reduction of air emissions by use of lower emissions vehicles. These mitigation methods are discussed in detail in Section 6 of this

SED. Mitigation measures are suggested to minimize site specific impacts to less than significant levels. Mitigation of adverse environmental impacts is strictly within the discretion of responsible parties. It is the obligation of the responsible parties to mitigate adverse environmental impacts associated with reasonably foreseeable means of compliance when impacts are deemed significant (Title 14, California Code of Regulations, Section 15091(a)(2)).

The SED can be used by responsible parties to expedite any additional environmental analysis of specific projects required to comply with the TMDL. As discussed in this SED, California Water Code section 13360 prohibits the Regional Water Board from specifying the manner of compliance with a WDR or other order. It is within the discretion the implementing party to select the most appropriate means of compliance and the use of measures which may mitigate potential adverse impacts associated with those means of compliance is recommended. To the extent that there are unavoidable adverse environmental impacts, the benefits of the TMDL outweigh these impacts.

## **2. REGULATORY REQUIREMENTS FOR ENVIRONMENTAL IMPACT ANALYSIS**

This section presents the regulatory requirements for assessing environmental impacts of a TMDL implemented through a Basin Plan amendment by the Regional Water Board. This TMDL for nutrients in the Santa Clara Lakes is evaluated at a program level of detail under a *Certified Regulatory Program* and the information and analyses are presented in this SED as discussed in this section.

### **2.1 EXEMPTION FROM CERTAIN CEQA REQUIREMENTS**

The California Secretary of Resources has certified the State and Regional Water Boards' basin planning process as exempt from certain requirements of CEQA, including preparation of an initial study, negative declaration, and environmental impact report (California Code of Regulations, Title 14, Section 15251(g)). As the proposed amendment to the Basin Plan is part of the basin planning process, the environmental information developed for and included with the amendment is considered a substitute for an initial study, negative declaration, and/or environmental impact report.

### **2.2 CALIFORNIA CODE OF REGULATIONS AND PUBLIC RESOURCES CODE REQUIREMENTS**

While the "certified regulatory program" of the Regional Water Board is exempt from certain CEQA requirements, it is subject to the substantive requirements of California Code of Regulations, Title 23, Section 3777(a), which requires a written report that includes a description of the proposed activity, an analysis of reasonable alternatives, and an identification of mitigation measures to minimize any significant adverse environmental impacts. Section 3777(a) also requires the Regional Water Board to complete an environmental checklist as part of its substitute environmental document. This checklist is provided in section 6 of this document.

In addition, the Regional Water Board must fulfill substantive obligations when adopting performance standards such as TMDLs, as described in Public Resources Code section 21159.

Section 21159, which allows expedited environmental review for mandated projects, provides that an agency shall perform, at the time of the adoption of a rule or regulation requiring the installation of pollution control equipment, or a performance standard or treatment requirement, an Environmental Analysis of the reasonably foreseeable methods of compliance. The statute further requires that the environmental analysis at a minimum, include, all of the following:

- (1) An analysis of the reasonably foreseeable environmental impacts of the methods of compliance.
- (2) An analysis of reasonably foreseeable feasible mitigation measures to lessen the adverse environmental impacts.
- (3) An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation that would have less significant adverse impacts. (Pub. Resources Code, §21159(a).)

Section 21159(c) requires that the Environmental Analysis take into account a reasonable range of:

- (1) Environmental, economic, and technical factors,
- (2) Population and geographic areas, and
- (3) Specific sites.

## **2.3 PROGRAM AND PROJECT LEVEL ANALYSES**

Public Resources Code § 21159(d) specifically states that the public agency is not required to conduct a “project level analysis.” Rather, a project level analysis must be performed by the local agencies that are required to implement the requirements of the TMDL (Pub. Res. Code §21159.2). Notably, the Regional Water Board is prohibited from specifying the manner of compliance with a WDR or other order (Water Code § 13360), and accordingly, the actual environmental impacts will necessarily depend upon the compliance strategy selected by responsible parties.

This Substitute Environmental Document identifies the reasonably foreseeable environmental impacts of the reasonably foreseeable methods of compliance (Pub. Res. Code, § 21159(a)(1)), based on information developed before, during, and after the CEQA scoping process that is specified in California Public Resources Code section 21083.9. This analysis is a program level (i.e., macroscopic) analysis. CEQA requires the Regional Water Board to conduct a program level analysis of environmental impacts. (Pub. Res. Code, § 21159(d)). Similarly, the CEQA substitute document does not engage in speculation or conjecture (Pub. Res. Code, §21159(a)). When the CEQA analysis identifies a potentially significant environmental impact, the accompanying analysis identifies reasonably foreseeable feasible mitigation measures. (Pub. Res. Code, § 21159(a)(2)). Because responsible parties will most likely use a combination of implementation alternatives, the SED has identified the reasonably foreseeable alternative means of compliance. (Pub. Res. Code, § 21159(a)(3).)

## **2.4 PURPOSE OF CEQA**

CEQA’s basic purposes are to: 1) inform the decision makers and public about the potential significant environmental effects of a proposed project, 2) identify ways that environmental damage may be mitigated, 3) prevent significant, avoidable damage to the environment by requiring changes in projects, through the use of alternative or mitigation measures when feasible, and 4) disclose to the public why an agency approved a project if significant effects are involved. (Cal. Code Regs., tit. 14, § 15002(a).)

To fulfill these functions, a CEQA review need not be exhaustive, and CEQA documents need not be perfect. They need only be adequate, complete, and good faith efforts at full disclosure. (Cal. Code Regs., tit.14, § 15151.) The Court stated in *River Valley Preservation Project v. Metropolitan Transit Development Board* (1995) 37 Cal.App.4th 154, 178:

“[a]s we have stated previously, “[our] limited function is consistent with the principle that [t]he purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind...” (City of Santee v. County of San Diego (1989) 214 Cal.App.3d 1438, 1448 [263 Cal. Rptr. 340]; quoting *Laurel Heights I*, supra, 47 Cal.3d at p. 393.) “We look ‘not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.’ (Guidelines, §§ 15151.)” (City of Fremont v. San Francisco Bay Area Rapid Transit Dist., supra, 34 Cal.App.4th at p. 1786.)

Nor does a CEQA require unanimity of opinion among experts. The analysis is satisfactory as long as those opinions are considered. (Cal. Code Regs., tit. 14, § 15151.)

In this document, the Regional Water Board staff has performed a good faith effort at full disclosure of the reasonably foreseeable environmental impacts that could be attendant with the proposed TMDL.

## **3. TMDL OVERVIEW AND PROGRAM OBJECTIVES**

### **3.1 INTRODUCTION – LEGAL BACKGROUND**

The TMDL sets forth an implementation plan to attain the water quality objectives for nutrient related impairments in Lake Hughes, Munz Lakes, and Elizabeth Lake (the Santa Clara Lakes). The TMDL was prepared pursuant to state and federal requirements to preserve and enhance water quality in the Santa Clara Lakes. The adoption of a TMDL is not discretionary and is compelled by section 303(d) of the federal Clean Water Act (33 USC 1313(d)).

The Basin Plan sets water quality standards for surface waters and ground waters in the region. These standards are comprised of designated beneficial uses for surface and ground waters, numeric and narrative objectives necessary to support beneficial uses, and the state’s antidegradation policy. Such standards are mandated for all waterbodies within the state under the Porter-Cologne Water Quality Act. In addition, the Basin Plan describes implementation programs to protect all waters in the region. The Basin Plan implements the Porter-Cologne Water Quality Control Act (commencing at Section 1300 of the “California Water Code”) and serves as the State Water Quality Control Plan applicable to the Santa Clara Lakes, also requiring



water quality standards for all surface waters as required pursuant to the federal Clean Water Act (CWA).

Section 305(b) of the CWA mandates biennial assessments of the nation’s water resources. These water quality assessments are used, with any other available data and information, to identify and prioritize waters not attaining water quality standards. The resulting amalgamation of waters is referred to as the “303(d) list” or the “Impaired Waters List.” CWA section 303(d)(1)(C) and (d)(1)(D) require that the state establish TMDLs for each listed water. Those TMDLs, and the 303(d) list itself, must be submitted to U.S. EPA for approval under section 303(d)(2). Section 303(d)(3) requires that the state also develop TMDLs for all waters that are not on the 303(d) list as well, but TMDLs for waters that do not meet the criteria for listing are not subject to approval by U.S. EPA.

TMDLs must be established at a level necessary to attain water quality standards, considering seasonal variations and a margin of safety. TMDLs must also include an allocation of parts of the total allowable load (or loading capacity) to all point sources, nonpoint sources, and natural background in the form of waste load and load allocations, accordingly. Waste load and load allocations must be assigned for all sources of the impairing pollutant, irrespective of whether they are discharged to the impaired reach or to an upstream tributary. TMDLs are generally established in California through the basin planning process, i.e., an amendment to the basin plan to incorporate a new or revised program of implementation of the water quality standards, pursuant to Water Code section 13242. The process that the Regional Water Board uses for establishing TMDLs is the same whether under section 303(d)(1) or 303(d)(3).

U.S. EPA’s authority over the 303(d) program includes the obligation to approve or disapprove the identification of impaired waters. If any list or TMDL is disapproved, U.S. EPA must establish its own list or TMDL.

Each of the Santa Clara Lakes is included on the 303(d) list because of nutrient-related impairments. As part of California’s 1996, 1998, 2002, 2006, 2008, and 2010 303(d) lists , the Regional Water Board identified Lake Hughes as being impaired due to excessive algae growth, eutrophic conditions, fish kills, and odor, and Munz Lake as impaired due to eutrophic conditions. Elizabeth Lake was identified as impaired due to eutrophic conditions, pH, and low dissolved oxygen on California’s 1996, 1998, 2002, 2006, 2008, and 2010 303(d) lists and organic enrichment/low dissolved oxygen on California’s 1998, 2002, 2006, 2008, and 2010 303(d) lists (Table 1-1).

**Table 1-1. Pollutant waterbody combinations**

Waterbody	Pollutant/Stressor	Date Impairment Identified
Lake Hughes	Excessive algae growth, Eutrophic conditions, Fish kills, Odor	1996, 1998, 2002, 2006, 2008, 2010
Munz Lakes	Eutrophic conditions	1996, 1998, 2002, 2006, 2008, 2010
Elizabeth Lake	Eutrophic conditions, pH, low dissolved oxygen	1996, 1998, 2002, 2006, 2008, 2010
Elizabeth Lake	organic enrichment/low dissolved oxygen	1998, 2002, 2006, 2008, and 2010

The TMDL for the Santa Clara Lakes is a Basin Plan amendment and is subject to Public Resources Code Section 21083.9 that requires a CEQA Scoping to be conducted for Regional

Projects. CEQA Scoping involves identifying a range of project/program related actions, alternatives, mitigation measures, and significant effects to be analyzed in an EIR or its functionally equivalent document. On February 24, 2016, a CEQA Scoping meeting was held to present and discuss the foreseeable potential environmental impacts of compliance with the TMDL at 320 W. 4<sup>th</sup> Street, Los Angeles, CA 90013. In addition, Regional Water Board staff attended two meetings in the Santa Clara Lakes community on May 5, 2016 and June 4, 2016. Input from all stakeholders and interested parties was solicited for consideration in the development of the CEQA environmental analysis. This SED considers all comments made at the February 24, 2016 CEQA Scoping meeting and subsequent community meetings.

This SED is being released for public comments accompanying the TMDL staff report, Basin Plan amendment, and tentative resolution for adoption by the Regional Water Board; these documents should be considered as a whole when evaluating the environmental impacts of implementing the TMDL. Regional Water Board staff will respond to public comments received on these documents and these comments and responses and the documents will all be considered by the Regional Water Board when considering whether to adopt the TMDL.

## **3.2 PROJECT PURPOSE, TMDL GOALS, AND WATER QUALITY OBJECTIVES**

### **3.2.1 Project Purpose**

The Regional Water Board proposes an amendment to the Basin Plan to incorporate a TMDL to reduce nutrient-related impairments in the Santa Clara Lakes.

As further set forth herein, this project's purpose is twofold:

- To adopt a regulation that will guide Regional Water Board permitting and other actions to require cooperative parties and responsible entities to take appropriate measures to restore and maintain applicable water quality standards pertaining to excessive nutrients in the Santa Clara Lakes; and
- To establish the TMDL in compliance with the requirements of section 303(d) of the federal Clean Water Act (CWA) in a manner timely enough to avert federal intervention in state water quality planning, which would occur as a result of U.S. EPA's obligations under section 303(d).

Section 303(d) of the CWA requires states to identify waters not meeting state water quality standards, and establish TMDLs for those waters, at levels necessary to resolve the impairments and maintain water quality standards. The purpose of this project is to both comply with the requirements of section 303(d) and to resolve the impairments and maintain compliance with water quality standards in the relevant water bodies.

### **3.2.2 TMDL Goals**

The Regional Water Board's goal in adopting the TMDL is to eliminate the significant water quality impacts caused by excessive nutrients in the Santa Clara Lakes.

CWA section 303(d)(1)(C) requires TMDLs to be established at a level necessary to implement the "applicable water quality standards." The applicable water quality standards for the Santa

Clara Lakes include designated beneficial uses and water quality objectives identified the Basin Plan. The Basin Plan designates beneficial uses of waterbodies, establishes water quality objectives for the protection of these beneficial uses, and outlines a plan of implementation for maintaining and enhancing water quality. The beneficial uses of the Santa Clara lakes are discussed in detail in Section 6.1.4 of this document. The proposed amendment would incorporate into the Basin Plan a TMDL for the Santa Clara Lakes.

### 3.2.3 Water Quality Objectives

As stated in the Basin Plan, Water Quality Objectives (WQOs) are intended to protect the public health and welfare and to maintain or enhance water quality in relation to the designated existing and potential beneficial uses of the water. The Basin Plan specifies both narrative and numeric WQOs. The following narrative WQOs are most pertinent to the TMDL.

Biostimulatory Substances: *Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.*

Taste and Odor: *Waters shall not contain taste or odor producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible aquatic resources, cause nuisance, or adversely affect beneficial uses.*

The Basin Plan also identifies several numeric water quality objects applicable to this TMDL. The numeric objectives are listed below:

Dissolved Oxygen (DO): *At a minimum the mean annual DO concentrations of all waters shall be greater than 7.0 mg/L, and no single determinations shall be less than 5.0 mg/L except when natural conditions cause lesser concentrations.*

In addition, the Basin Plan states “*The dissolved oxygen content of all surface waters designated as WARM shall not be depressed below 5 mg/L as a result of waste discharges.*”

pH: *The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge.*

*The pH of bays or estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.*

Ammonia: *In order to protect aquatic life, ammonia concentrations in inland surface waters characteristic of freshwater shall not exceed the values calculated for the appropriate instream conditions shown in Tables 3-1 to 3-3 in the Basin Plan.*

*In order to protect underlying groundwater basins, ammonia shall not be present at levels that when oxidized to nitrate, pose a threat to groundwater quality.*

Nitrogen (Nitrate/Nitrite): *Waters shall not exceed 10 mg/L nitrogen as nitrate-nitrogen plus nitrite-nitrogen ( $NO_3-N + NO_2 - N$ ), 45 mg/L as nitrate ( $NO_3$ ), 10 mg/L as nitrate-*

*nitrogen (NO3-N) or 1 mg/L as nitrite-nitrogen (NO2-N) or as otherwise designated in Table 3-10.*

Basin Plan Table 3-10 presents the nitrogen objective for Santa Clara River Reach 5 (between West Pier Highway 99 and Blue Cut gauging station) as 5mg/L NO3-N + NO2 – N.

The nitrogen objectives are established for the protection of the MUN beneficial use and are not sufficiently protective to control excessive algal growth and eutrophic conditions in the Santa Clara River Lakes and thus protect the most sensitive beneficial use in the watershed, which is aquatic life. Current nitrate loading in the watershed is a contributor to the exceedence of the biostimulatory substances narrative objective. Therefore, the TMDL includes numeric targets and allocations at levels necessary to attain the biostimulatory substances objective and protect all beneficial uses.

#### **4. Description of Alternatives**

This substitute environmental document analyzes three program alternatives that encompass actions within the jurisdiction of the Regional Water Board and implementing parties. The program alternatives include 1) the TMDL for the Santa Clara Lakes as it is proposed for Regional Water Board adoption; 2) a TMDL established by the U.S. EPA, 3) a TMDL with a different implementation schedule, and 4) and a No Program Alternative in which a TMDL is not implemented. Because a TMDL is required by Section 303(d) of the Clean Water Act, the no Program Alternative is analyzed to allow decision makers to compare the impacts of approving a proposed alternative and its components compared with the impacts of not approving a proposed alternative. The specifics of the many projects which would make up a program alternative are discussed in detail in Section 5 and include lake management strategies, runoff BMPs, and possible treatment upgrades that are reasonably foreseeable to be implemented under the TMDL program alternatives.

This document does not analyze a “partial” TMDL; for example, a TMDL which would achieve only a 70% or only an 80% attainment of numeric targets. This sort of alternative was considered and rejected because, to the extent that significant adverse environmental impacts would be created by compliance with this proposed TMDL, while a “partial” TMDL would, in fact, have fewer of those environmental impacts associated with compliance (although, also, less environmental benefits of the TMDL), the specific legal requirements of section 303(d) of the Clean Water Act require a level necessary to achieve water quality standards. Thus a “partial” TMDL is unlawful because a partial reduction in nutrients would not meet water quality standards.

The components assessed at a program level generally are program elements that would be implemented as part of the TMDL, but these elements do not have specific locations or design details identified. The components assessed at a project level have specific locations which will be determined by implementing parties. The project level components will be subject to additional future environmental review, including review by responsible parties implementing TMDL projects.

## **4.1 Program Alternatives**

### **4.1.1 Alternative1 - Regional Water Board TMDL**

This program alternative is based on the TMDL that is presently proposed for Regional Water Board consideration. The proposed TMDL focuses on the reduction of nutrient-related impairments in the Santa Clara Lakes.

The TMDL WLAs and LAs are established through an amendment to the Basin Plan. The WLAs are assigned to discharges from MS4s within the watershed. The WLAs will be implemented through the Los Angeles County MS4 permit, or for additional responsible entities in the future, MS4 permits under Phase II of the U.S. EPA Stormwater Permitting Program; or the residual designation authority of the state under CWA section 402(p)(2)(E), and other applicable regulatory programs within 15 years. The LAs are assigned to internal loading from the lakebed sediments and external loading from runoff, the Lake Hughes WWTF, and OWTS. The LAs assigned to internal loading will be implemented through a memorandum of agreement (MOA) among cooperative parties or a cleanup and abatement order and must be attained within 15 years. The LAs for runoff from areas that are not served by the MS4 will be implemented with WDRs, waivers of WDRs, or other regulatory mechanisms in accordance with the State Board's 2004 Nonpoint Source Policy and must be attained within 15 years. The LAs assigned to the Lake Hughes WWTF will be implemented in two phases: (1) completion of the special study to examine background concentrations and possible contributions to the nutrient loading from the facility and (2) possible upgrades to the facility within 12 years. The LAs assigned to the OWTS in the watershed through WDRs or waivers of WDRs under the State Water Resource Control Board's OWTS Policy. The County will conduct a special study to determine which existing OWTS are contributing to the nutrient loading to the lakes. Those systems will then be required to be upgraded or modified to enhance their nutrient removal within 12 years.

This alternative provides a program for addressing the adverse impacts of nutrients through progressive controls in discharges to the Santa Clara Lakes through a 15-year schedule. This schedule is both reasonable and as short as practicable. The WLAs, LAs, and the implementation schedule, once they are incorporated into the Basin Plan, will be considered when developing regulatory requirements that are adopted in separate subsequent actions by the Regional Water Board.

Although the Regional Water Board cannot mandate the manner of compliance, foreseeable environmental impacts from methods of compliance are well known. During the development of the TMDL, a CEQA scoping meeting was held during which the manner of compliance was discussed. At this meeting, the most reasonable means of compliance were examined. The alternatives include lake management methods such as dredging, increasing/maintaining lake levels, and plant management to uptake nutrients. Alternatives for managing runoff were also discussed including vegetated swales, filter strips, bioretention, and infiltration. In addition, upgrades to the wastewater treatment plant and a septic system study and potential upgrades were discussed.

This TMDL program alternative anticipates compliance through implementation these projects as discussed in Section 5. The potential impacts from these projects can include, for example, dust generation from excavation, habitat disturbance, noise associated with construction, air emissions associated with vehicles to deliver materials during construction, and traffic and wear and tear on local roads associated with increased vehicle trips. This document analyzes these impacts and

concludes that significant impacts can be mitigated or there are alternative means of compliance available.

#### **4.1.2 Alternative 2 – U.S. EPA TMDL**

This program alternative is based on a TMDL that would be established by the U.S. EPA. This would occur if the Regional Water Board fails to adopt a TMDL. A TMDL technical analysis conducted by U.S. EPA would be similar to the Regional Water Board analysis and the same laws and regulations apply; therefore, it is assumed that the technical portions and LAs and WLAs of this TMDL program alternative will be essentially the same as program alternative 1. In other words, any TMDL must implement the water quality objectives irrespective of which agency establishes the TMDL. However, a TMDL established by U.S. EPA will not be implemented through a Basin Plan amendment. The WLAs will be implemented directly through NPDES permit limits as the permits are renewed without consideration of a compliance schedule or implementation plan.

Like Alternative 1, this TMDL program alternative anticipates compliance through installation of (1) lake management methods such as dredging, increasing/maintaining lake levels, and plant management to uptake nutrients, (2) runoff management alternatives including vegetated swales, filter strips, bioetention, and infiltration, (3) upgrades to the wastewater treatment plant, and (4) study and potential upgrades of septic systems as discussed in Section 5. The potential impacts from these projects can include, for example, dust generation from excavation, habitat disturbance, noise associated with construction, air emissions associated with vehicles to deliver materials during construction, and traffic and wear and tear on local roads associated with increased vehicle trips. This document analyzes these impacts and concludes that significant impacts can be mitigated or there are alternative means of compliance available, and that the benefits of the program outweigh any significant adverse environmental effects.

#### **4.1.3 Alternative 3 – A TMDL with a Different Implementation Schedule**

This program alternative is based on the TMDL that is presently proposed for Regional Water Board consideration, but with a longer implementation schedule. The technical analysis will be very similar to the Regional Water Board analysis and the same laws and regulations apply. Therefore, it is assumed that the technical portions, LAs, and WLAs of this TMDL program alternative will be essentially the same as program alternative 1.

Like alternative 1, this TMDL program alternative anticipates compliance through installation of (1) lake management methods such as dredging, installation of aerations systems, maintaining lake levels, and plant management to uptake nutrients, (2) runoff management alternatives including vegetated swales, filter strips, bioretention, and infiltration, (3) upgrades to the wastewater treatment plant and (4) study and potential upgrades of septic systems as discussed in Section 5. The potential impacts from these projects can include, for example, dust generation from excavation, habitat disturbance, noise associated with construction, air emissions associated with vehicles to deliver materials during construction, and traffic and wear and tear on local roads associated with increased vehicle trips. This document analyzes these impacts and concludes that significant impacts can be mitigated or there are alternative means of compliance available, and that the benefits of the program outweigh any significant adverse environmental effects.

#### **4.1.4 Alternative 4 – No Program Alternative**

This program alternative assumes that neither U.S. EPA nor the Regional Water Board implements a TMDL. While responsible parties could implement BMPs on a discretionary basis, this CEQA analysis is based on the assumption that no additional nutrient reduction BMPs would be implemented in addition to those that are presently in place. A No Project TMDL is contrary to federal and state law and therefore, failure to implement a TMDL is unlawful.

In addition, while the impact to the environment from lake management activities, runoff management, and possible treatment upgrades would be avoided in this No Program alternative, a No Program alternative would not restore beneficial uses in the Santa Clara Lakes. Either the Regional Water Board- or U.S. EPA-adopted TMDL program alternative will restore beneficial uses and attain water quality standards by removing excess nutrients from the Santa Clara Lakes. As such, alternatives 1-3 represent a benefit to the environment and alternative 4 represents continued nutrient impairment.

#### **4.1.5 Recommended Program Alternative**

This environmental analysis finds that program alternative 1 is the most environmentally feasible alternative.

Alternative 4 is not a feasible alternative because, while it avoids impacts due to discrete projects, nutrient impairments in the Santa Clara Lakes will continue. Program alternatives 1, 2, and 3 will comply with the law and remove the nutrient impairments from the Santa Clara Lakes.

The key difference between program alternatives 1 and 2 is the establishment of an implementation plan and schedule. While the same LAs and WLAs will need to be met and the same technological choices will be available by both alternatives, alternative 1 will allow a measured implementation plan, resulting in full compliance in 15 years. Alternative 2, in contrast, will require compliance with WLAs at the time of MS4 permit renewal. The environmental impacts due to alternative 2 may be of greater severity as the intensity of implementation actions will be greater to comply with the shorter time frame. The longer schedule of alternative 1 allows for prioritization and planning, more thoroughly mitigated impacts, more appropriately designed, sited and sized structural devices and, therefore, less environmental impact, in general. In addition, the TMDL implementation plan in alternative 1 lays out a process for implementing the LAs assigned to external nonpoint sources and internal lake loading. The implementation plan includes studies to determine which septic systems are contributing nutrient loading before LAs apply and to determine the contribution of the WWTF as compared to possible background sources before upgrades are required. The implementation plan identifies cooperative parties and establishes a framework for lake restoration, which will assist in obtaining federal and State funding to implement the LAs.

The key difference between alternative 1 and 3 is the length of the implementation schedule. The environmental impacts due to alternative 1 rather than 3 may be of greater severity as the intensity of implementation actions will be greater to comply with the shorter time frame. However, the implementation schedule must be as short as practicable in order to achieve the project purpose to restore and maintain applicable water quality standards pertaining to excessive nutrients in the Santa Clara Lakes. It is practicable to achieve compliance within 15 years as proposed in the TMDL. A longer timeframe is unnecessary and would lead to a longer period of time in which water quality standards continue to be exceeded. Additionally, the implementation

schedules for all sources assigned LAs and WLAs were developed with consideration of the practicability of implementation.

## **4.2 Project Level Alternatives**

The program alternatives above present many alternatives and options and do not require any specific projects to achieve compliance. Rather, a project level analysis must be performed by the local agencies that are required to implement the requirements of the TMDL (Pub. Res. Code § 21159.2). Notably, the Regional Water Board is prohibited from specifying the manner of compliance with its WDRs or other orders (Water Code § 13360), and accordingly, the actual environmental impacts will necessarily depend upon the compliance strategy selected by the local agencies and other permittees. Although the Regional Water Board cannot mandate the manner of compliance, foreseeable environmental impacts from methods of compliance are well known, as are feasible mitigation measures.

During the development of the TMDL, a CEQA scoping meeting was held (February 24, 2016) during which the manner of compliance was discussed. Potential project-level alternatives include (1) lake management methods such as dredging, increasing/maintaining lake levels, and plant management to uptake nutrients, (2) runoff management alternatives including vegetated swales, filter strips, bioetention, and infiltration, (3) upgrades to the wastewater treatment plant, and (4) study and potential upgrades of septic systems as discussed in Section 5.

The components assessed at a project level have specific locations which will be determined by implementing municipalities and agencies. The project-level components will be subject to additional future environmental review, including review by responsible entities and cooperative parties implementing the TMDL projects.

## **5. Description of Implementation Alternatives**

This Section of the SED provides a description of implementation alternatives and the type of sites where they might be placed within the TMDL area. The Regional Water Board is prohibited from specifying the manner of compliance with its WDRs or other orders (Water Code § 13360), and accordingly, the actual compliance strategies will be selected by responsible parties. Although the Regional Water Board does not mandate the manner of compliance, foreseeable methods of compliance are well known.

The project-level components will be subject to additional future environmental review. A project level environmental analysis must be performed by the local agencies that are required to implement the requirements of the TMDL (Pub. Res. Code § 21159.2.).

The reasonably foreseeable implementation alternatives for the TMDL fall into four categories, (1) implementation actions that can take place directly in the lakes, (2) options that can be used to treat runoff prior to its reaching the lakes, (3) upgrades to the Lake Hughes WWTF, and (4) evaluation and possible upgrades of septic systems. Extended drought in California can result in episodic drying of some of the lakes; therefore, selection of implementation strategies will depend, in part, on the amount of water in the Santa Clara Lakes during TMDL implementation.



## **5.1 Lake Management Implementation Alternatives**

Lake management activities may include projects and devices that are designed to reduce and manage nutrient loading in the lakes themselves. This may include projects such as traditional or hydraulic dredging to remove nutrient rich sediments. Likewise, an aeration system may be used to maintain adequate dissolved oxygen concentrations. Described below are various lake management alternatives that may be implemented by responsible jurisdictions as part of TMDL compliance.

### **Dredging**

Dredging is a process for removing or displacing gravel, mud, sand, and/or silt along with various materials (i.e. sediment, debris, etc.) from water bodies such as rivers, lakes, streams and their corresponding shorelines and wetlands. Traditional dredging, also known as "dry dredging," is a specific type of dredging that involves the drainage of the waterbody in order to proceed with excavation and/or repositioning of the sand and gravel. This method is generally carried out with the use of bulldozers and backhoes. Once the sediments are removed, clean sediment can be applied. Since the Santa Clara River Lakes cycle through dry periods, dredging can be done while the lake beds are dry to avoid the need to drain the lakes.

There are numerous detrimental impacts to the natural environment within the waterbody subjected to traditional dredging and the surrounding area. The most immediate and severe impact of traditional dredging is the death of aquatic life inhabiting the waterbody and surrounding areas including fish, reptiles, birds, plants, algae, microscopic life, and invertebrates caused by draining the waterbody and the respective total loss of habitat for the aquatic organisms. Heavy machinery employed for excavation of the waterbody causes loss of habitat along the shoreline and areas surrounding the waterbody. This will severely impact terrestrial animals residing in areas near the waterbody. It may cause direct death of animals or the abandonment of den or nest sites that may contain young.

Dredging of the Santa Clara Lakes is anticipated to result in temporary disturbance. Once the polluted sediments have been removed, and ongoing external pollutant sources have been controlled, it is not anticipated that repeated dredging of the Santa Clara Lakes will be necessary in order to comply with the TMDL.

Another method of sediment removal from lakes is hydraulic dredging. A hydraulic dredge, approximately the size of a boat, floats on the water and has a flexible pipe that siphons a mix of water and sediment from the bottom of the lake to an offsite location to dry. Hydraulic dredging does not require draining the lake or damage to the shoreline of the lake. Hydraulic dredging was not examined as a potential implementation alternative for the Santa Clara River Lakes in this SED because, based on comments received during the CEQA scoping meeting and subsequent community meetings, hydraulic dredging is not feasible for these shallow lakes.

### **Increase and/or Maintain Lake Level**

Maintaining an optimal lake level is another method to improve lake water quality. In warm climates with short wet seasons a direct source of supplemental water with low nutrient concentrations could be used to help offset evaporative losses from the lake and increase the assimilative capacity of the Lakes. A supply of supplemental water could help to maintain the

lake level and water quality through the hot dry season, which is considered the critical condition for the lakes.

The source of water utilized to supplement the evaporative loss from the Santa Clara Lakes could come from a variety of sources such as potable supply, stormwater (capture and reuse), or recycled water. Currently water may be added to Munz lake on an irregular basis; however, the source of water used addition to the lake is uncertain (Tetra Tech, 2015). Any water source used to supplement the Santa Clara Lakes would be required to comply with the TMDL waste load and load allocations and all water quality standards.

### **Floating Islands / Hydroponic Nesting Islands**

Floating islands are constructed islands that provide terrestrial and aquatic habitat while at the same time reducing nutrient concentrations in the lake. The island provides nesting and resting habitat for bird species and the roots below the water provide fish habitat. Floating islands are beneficial in removing nutrients from the water column through the roots of plants that are exposed in the water column rather than rooted in the sediments of the lake. Plants on the floating island should be harvested occasionally in order to maintain actively growing vegetation and maximum nutrient uptake.

The periodic drying of the Santa Clara Lakes during times of drought makes it unlikely that this TMDL implementation method is appropriate for all three lakes; however, in combination with additional implementation measures, floating islands have the potential to improve water quality in the Santa Clara Lakes. Therefore, they are considered as a potential implementation alternative in this analysis.

### **Invasive Species Removal**

Terrestrial and aquatic invasive plants can affect the quality of the lake by crowding out native plants, destroying shoreline habitat, and changing runoff dynamics and water tables. Invasive terrestrial plants can consume three times more water than native plants, which, if located along a lake's shoreline, can have a significant impact on the lake's assimilative capacity.

### **Aeration Systems**

The water quality in the Santa Clara Lakes could be improved by installing aeration systems at various locations, which would help prevent an anoxic environment that can be especially stressful for fish and even lead to fish kills. In general, aeration systems work by destratifying the lake through artificial circulation that mixes the water column and prevents the lake from becoming stratified (due to temperature), particularly during the summer months.

The periodic drying of the Santa Clara Lakes during times of drought makes it unlikely that this implementation method is appropriate for all three lakes; however, in combination with additional implementation measures, aeration has the potential to improve water quality in the Santa Clara Lakes. Therefore, it is considered as a potential implementation alternative in this analysis.

## **5.2 Runoff Implementation Alternatives**

Runoff implementation alternatives would reduce pollutant loads in runoff prior to entering the Santa Clara Lakes. Runoff BMPs would be installed near and around the lakes. The lake

management and runoff implementation alternatives may be implemented as a coordinated lake restoration effort that combines lake management activities and shoreline buffering/runoff reduction projects. Potential BMPs to reduce runoff are listed below.

### **Shoreline Buffering**

Trees, plants, and shrubs along shorelines protect lakes by acting as a buffer for runoff. These strips of vegetation retain sediment and other pollution before it can reach the lakes. The deep root systems of the trees and shrubs also hold soil in place and absorb nutrients. In addition, buffer areas can attract birds and other wildlife and provide important habitat for aquatic animals living along the shore.

### **Biofiltration: Vegetated Swales**

Vegetated swales are constructed drainage ways used to slowly convey runoff. Vegetation in swales allows for the filtering of pollutants, and infiltration of runoff into groundwater. Broad swales on flat slopes with dense vegetation are the most effective at reducing the volume of runoff and pollutant removal. Swales planted with native vegetation offer higher resistance to flow and provide a better environment for filtering and trapping pollutants from runoff. Vegetated swales generally have a trapezoidal or parabolic shape with relatively flat side slopes. Individual vegetated swales generally treat small drainage areas (five acres or less). Conservatively, a properly designed vegetated swale may achieve a 25 to 50 percent reduction in particulate pollutants, including sediment and sediment-attached phosphorus. Lower removal rates (less than 10 percent) can be expected for dissolved pollutants, such as soluble phosphorus, nitrate, and chloride (U.S. EPA, 1999).

### **Biofiltration: Filter Strips**

Filter strips are densely vegetated, uniformly graded areas that treat sheet flow from adjacent areas. They reduce runoff velocities and trap sediment and other pollutants as they settle out. The reduced velocities also result in some infiltration. Filter strips are commonly planted with turf grass, but they may also employ native vegetation. Filter strips have low removal efficiencies for nutrients, but high removal efficiencies for sediment (CASQA, 2003). They are often used in combination with other treatment.

### **Biofiltration: Bioretention**

Bioretention uses a combination of soils and woody and herbaceous plants to remove pollutants from runoff through physical and biological processes. Runoff is conveyed to the treatment area, which consists of a grass buffer strip, sand bed, ponding area, organic or mulch layer, planting soil, and plants. The buffer strip and sand bed slow the runoff's velocity and distribute it evenly along the length of the ponding area. The ponding area has a surface organic layer and/or ground cover and the underlying planting soil. The ponding area is graded, and the center is depressed. Bioretention can remove up to 90% of total suspended solids and 70-03% total phosphorus. Bioretention areas are approximately 15 feet wide by 40 feet long (CASQA, 2003).

### **Infiltration: Trenches and Basins**

Infiltration trenches are long and narrow and filled with rock or other media to allow for storage and slow percolation of runoff to the bottom of the trench and into the soil below. Infiltration trenches have high nutrient removal efficiencies for fine sediment and associated pollutants.

Pretreatment using buffer strips, swales, or detention basins is necessary for limiting coarse sediment entering the trench, which can clog and render the trench ineffective (CASQA, 2003). Maintenance efforts associated with infiltration trenches should include frequent inspections to ensure that water infiltrates into the subsurface completely at a recommended infiltration rate of 72 hours or less to prevent creating mosquito and other vector habitats. (CASQA, 2003)

An infiltration basin is an impoundment that captures runoff and allows it to infiltrate into the ground over a period of days. The basin temporarily stores runoff for a storm of a specific design size. The applicability of an infiltration basin is dependent on soil type, slope, depth to the water table, depth to the bedrock or impermeable layer, contributing watershed area, land use, and proximity to wells and surface waters. Infiltration basins are effective at removing sediment and nutrients. Maintenance includes inspections for standing water, removal of accumulated debris to ensure successful long term operation (CASQA, 2003).

### **5.3 Upgrades to Lake Hughes Community Wastewater Treatment Plant**

The Lake Hughes Community WWTF's current treatment process consists of screening, comminution, and oxidation, followed by clarification and chlorination. If studies show that the facility is contributing to the nutrient loading in groundwater, the facility may need to be upgraded to include nutrient removal in order to meet the load allocations. There are a number of biological nutrient removal process configurations available. Some configurations remove only nitrogen or phosphorus, while others remove both. All biological nutrient removal systems designed to remove nitrogen must have an aerobic zone for nitrification and an anoxic zone for denitrification, and systems designed to remove phosphorus must have an anaerobic zone free of dissolved oxygen and nitrate. Often, sand or other media filtration is used as a polishing step to remove particulate matter when low nitrogen and phosphorus effluent concentrations are required. (U.S. EPA. 2007)

Construction and installation activities for possible upgrades would occur at the treatment facility, located 2000 feet east of Lake Hughes.

### **5.4 Septic System Evaluation and Upgrades**

TMDL implementation may require a reduction in the nutrient loading from OWTS. Implementation to achieve this load reduction may include actions ranging from inspection or regular monitoring of OWTS to installation of supplemental treatment. Before any individual OWTS are required to be upgraded to meet the load allocations, the County of Los Angeles will conduct a special study to investigate which, if any, OWTS are contributing to nutrient loading in the Santa Clara River Lakes. The OWTS in the watershed are primarily located around the northern side of Elizabeth Lake and around Lake Hughes where homes were not connected to the WWTF. There are very few if any OWTS located around Munz Lake.

OWTS construction procedures typically involve excavations for placement of septic tanks, supplemental treatment systems, dispersal systems, electric lines (power and phone), seepage pits, shallow dispersal trenches, and groundwater monitoring wells. OWTS-related construction may also involve soil disturbance for sites prepared for sand and gravel-filled beds. In general, most OWTS installation, replacement, repair, or upgrade projects would disturb less than 1 acre and are regulated by the local land use agency with a building permit that includes implementation of appropriate grading plans, siting, and erosion control measures. Implementation of the TMDL is

not anticipated to result in an increased number of OWTS systems in the Santa Clara Lakes watershed. Construction impacts would likely be a result of the upgrade or replacement of current systems.

## **6. Setting, Impacts, and Mitigation**

### **6.1 Introduction**

This section presents the environmental setting, impacts, and mitigation, where applicable, for the proposed implementation alternatives evaluated in this SED. The implementation alternatives for achieving compliance with the TMDL are described in detail in Section 5 of this document and in the TMDL Staff Report. Each of these implementation alternatives has been independently evaluated in this SED. The environmental setting for the TMDL is discussed in Section 6.1.3. The environmental checklist, which includes the potential negative environmental impacts of the implementation alternatives (see Section 5 for a detailed description of the TMDL implementation alternatives), is included in Section 6.2.

#### **6.1.1 Approach to Environmental Setting and Impact Analysis**

Any potential environmental impacts associated with the waterbodies of concern in the TMDL depend upon the specific compliance projects selected by the responsible parties, who will be subject to their own CEQA obligations (see Pub. Res. Code § 21159.2). This CEQA substitute environmental document identifies broad mitigation approaches that could be considered at a program level. Consistent with PRC§21159, the SED does not engage in speculation or conjecture, but rather considers the reasonably foreseeable environmental impacts of the foreseeable methods of compliance, the reasonably foreseeable feasible mitigation measures, and the reasonably foreseeable alternative means of compliance, which would avoid or reduce the identified impacts.

This SED evaluates the impacts of each implementation alternative relative to the subject resource area. The physical scope of the environmental setting and the analysis in this SED is the Santa Clara Lakes sub-watershed area, totaling an estimated 11 square miles. This area is the geographic area for assessing impacts of the different implementation alternatives, because the excessive nutrient loading to this area would be controlled and/or eliminated by any one of or a combination of the implementation alternatives. In addition, any potential impacts of implementing the proposed alternatives would be focused in this area.

The implementation alternatives in this SED are evaluated at a program level for impacts for each resource area. An assumption is made that a more detailed project level analysis will be conducted by all responsible entities and cooperative parties once their mode of achieving compliance with the TMDL has been determined. The analysis in this SED assumes that, project proponents will design, install, and maintain implementation measures following all applicable laws, regulations, ordinances, and formally adopted municipal and/or agency codes, standards, and practices.

#### **6.1.2 Program Level versus Project Level Analysis**

As previously discussed, the Regional Water Board is the lead agency for the TMDL program, while the responsible entities and cooperative parties are the lead agencies for any and all projects implemented, within their jurisdiction, to comply with the program. The Regional Water Board

does not specify the actual means of compliance by which responsible entities and cooperative parties choose to comply with the TMDL. Therefore, the implementation alternatives are mostly evaluated at a program level in this SED. The alternatives assessed at a program level generally are projects that would be implemented as part of the TMDL compliance. PRC §21159 places the responsibility of project level analysis on the responsible entities and cooperative parties that will implement the Regional Water Board's TMDL.

### **6.1.3 Environmental Setting**

The Santa Clara River, approximately one hundred miles long, is the largest river system in southern California and was selected by American Rivers as one of the nation's most endangered rivers in 2005. The river originates in the northern slope of the San Gabriel Mountains in Los Angeles County, traverses Ventura County and flows into the Pacific Ocean halfway between the cities of San Buenaventura and Oxnard. (LARWQCB, 2006)

Elizabeth Lake, Munz Lake and Lake Hughes, at the elevation of 3,300 feet above mean sea level (MSL), are near the headwater of Lake Elizabeth Canyon Creek in the unincorporated community of Lake Hughes. From the fringe of the Mojave Desert, Lake Elizabeth Canyon Creek winds southwest through chaparral-studded hills for approximately 15 miles before reaching Castaic Lake. Castaic Lake is a reservoir for drinking water with capacity of 323,700 acre-feet. Water, combined with water from California Aqueduct, travels through Castaic Lake, continues to be released to Castaic Lagoon, and thereafter enters Castaic Creek. Castaic Creek flows southerly for roughly 5 miles to the City of Santa Clarita where the creek confluences with the Santa Clara River Reach 5.

#### **Elizabeth Lake**

Elizabeth Lake is in northern Los Angeles County near the village of Lake Elizabeth. Elizabeth Lake is a 123.2 acre natural basin approximately 3 miles wide oriented east-westerly. The depth of the lake varies between wet and dry seasons; generally along the perimeter it ranges from 6 feet to 15 feet, and from 18 feet to 20 feet toward the middle of the lake (Lund, Anderson and Amrhein, 1994). The eastern half of Elizabeth Lake and a portion of the western half is privately owned while the remainder of the western shore is under the jurisdiction of the U.S. Forest Service (USFS) within the Angeles National Forest. The eastern portion of the lake, with grassy areas and water tanks, is fenced in and posted as private property; however, sections of fence are damaged and could allow public access. The Angeles National Forest allows the access to Elizabeth Lake via trails and has a recreational area on the northwestern shore of the lake.

The primary water source into Elizabeth Lake is the rainfall and runoff from surrounding areas. The lake may also be fed by subsurface flows trapped by the San Andreas Fault. During the wet season, Elizabeth Lake occasionally overflows through a meandering channel in Munz Lake and thence into Lake Hughes (LARWQCB, 2006).

#### **Munz Lake**

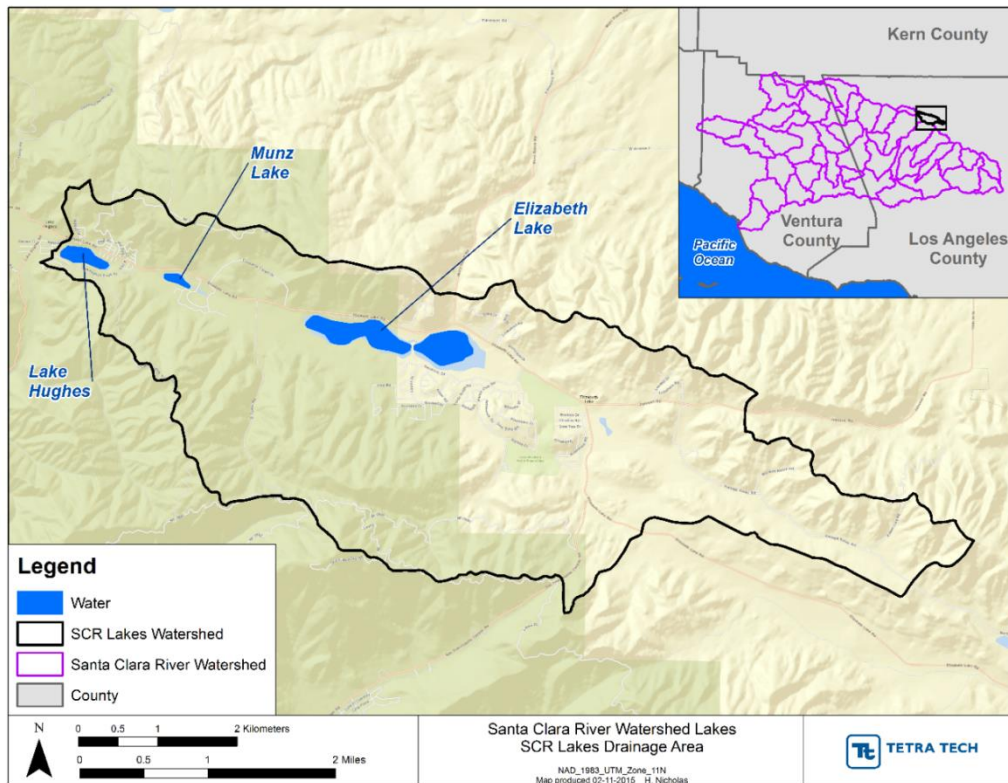
Munz Lake, approximately 3,500 feet west of Elizabeth Lake, is a small 6.5 acre, irregularly shaped lake. The lake is completely enclosed by private property, The Painted Turtle, which is a camp for children with serious or terminal illnesses. Munz Lake is surrounded by a grassy yard with boat house on the south shore. Water in the lake mainly comes from wells, rain and runoff, partially from Elizabeth Lake. Munz Lake discharges to Lake Hughes at its west end.

## Lake Hughes

Lake Hughes, located in the county unincorporated community of Lake Hughes and approximately 2,500 feet west of Munz Lake, is a natural basin with surface area of 21.4 acres. The depth of the lake ranges from 3 feet near the perimeter to 18 feet at the center during the wet season. The north shore and southwestern shore is occupied by private residential areas, and the remaining shore is covered by vegetation. Most of the residents have direct access to Lake Hughes in their backyards or via alleys among houses. In addition to rain, street runoff, and water from Elizabeth Lake and Munz Lake, Lake Hughes can also be replenished by subsurface flows trapped by the San Andreas Fault (LARWQCB, 2006).

The physical scope of the environmental setting and the analysis in this EIR is Elizabeth Lake, Munz Lake, and Lake Hughes and the surrounding area, totaling 11 square miles.

The SCR lakes were all formed as sag ponds due to wet season precipitation and accumulation. All three lakes have been known to dry up periodically. Lake Hughes and Elizabeth Lake are currently dry as of the writing of this SED and have been mostly dry since the summer of 2014.



**Figure 6-1.** Elizabeth Lake, Munz Lake and Lake Hughes TMDL area in the Santa Clara River Watershed.

#### 6.1.4 Beneficial Uses of the Santa Clara Lakes

The various uses of waters in the Los Angeles Region, referred as beneficial uses, are designated in the Basin Plan (LARWQCB, 1994). These beneficial uses are the cornerstone of the State and Los Angeles Regional Water Quality Control Board's effort to protect water quality, as water quality objectives are set at levels that will protect the most sensitive beneficial use of a waterbody. Brief descriptions of the beneficial uses most likely to be impaired due to nutrient-related pollutants in the Santa Clara Lakes are provided in this section.

The Basin Plan for the Los Angeles Regional Water Quality Control Board (LARWQCB, 1994) defines twelve beneficial uses for the Santa Clara Lakes (Table 6-1). Beneficial uses are recognized in the Basin Plan as existing (E), potential (P) or intermittent (I). Nutrient loading to the Santa Clara Lakes may result in impairments of beneficial uses associated with water supply (MUN), industrial process supply (PROC), agriculture (AGR), groundwater (GWR), freshwater replenishment (FRSH), aquatic life (WARM, WILD, and RARE), and recreation (REC 1 and REC 2).

**Table 6-1. Designated Beneficial Uses of the Santa Clara Lakes**

<b>Reach</b>	<b>MUN</b>	<b>IND</b>	<b>PROC</b>	<b>AGR</b>	<b>GWR</b>	<b>FRSH</b>	<b>WARM</b>	<b>RARE</b>	<b>REC 1</b>	<b>REC 2</b>
Lake Hughes	P	P	P	P	P	P	E		E	E
Munz Lakes	P	P	P	P	E	P	E		E	E
Elizabeth Lake	P	P	P	P	P	P	E	E	E	E



## 6.2 Environmental Checklist and Discussion

### 6.2.1 CEQA Checklist

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS</b> 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 the existing visual character or quality of the site and its surroundings?	X			
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
<b>II. AGRICULTURE AND FOREST RESOURCES</b> 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 Boards. 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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
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
<b>III. AIR QUALITY</b> 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. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X			
d. Expose sensitive receptors to substantial pollutant concentrations?	X			
e. Create objectionable odors affecting a substantial number of people?	X			
<b>IV. BIOLOGICAL RESOURCES</b> Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on	X			

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
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 Game or U.S. Fish and Wildlife Service?				
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 Game or US Fish and Wildlife Service?	X			
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal, pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	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			
<b>V. CULTURAL RESOURCES</b> Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	X			
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	X			
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
d. Disturb any human remains, including those interred outside of formal cemeteries?	X			
<b>VI. GEOLOGY AND SOILS</b> Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or 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.				
ii. Strong seismic ground shaking?				
iii. Seismic-related ground failure, including liquefaction?				
iv. Landslides?				
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 on- or off-site 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 waste water disposal systems where sewers are not available for the disposal of waste water?				X
<b>VII. GREENHOUSE GAS EMISSIONS</b> Would the project:				
a. Generate Greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS</b> 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. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	X			
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?		X		

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY</b> Would the project:				
a. Violate any water quality standards or waste discharge requirements?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	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, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X
f. Otherwise substantially degrade water quality?				X
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
j. Inundation by seiche, tsunami, or mudflow?				X
<b>X. LAND USE AND PLANNING</b> - Would the project:				
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X			
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	X			
<b>XI. MINERAL RESOURCES</b> - 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
<b>XII. NOISE</b> - Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X			
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	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				X

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
<b>XIII. POPULATION AND HOUSING - Would the project:</b>				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
<b>XIV. PUBLIC SERVICES</b>				
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? Parks? Other public facilities?				X
<b>XV. RECREATION</b>				
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	



	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
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	
<b>XVI. TRANSPORTATION/TRAFFIC</b> - Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	X			
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	X			
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e. Result in inadequate emergency access?	X			
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	X			
<b>XVII. UTILITIES AND SERVICE SYSTEMS</b> - Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	X			
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	X			
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	X			
g. Comply with federal, state, and local statutes and regulations related to solid waste?	X			
<b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE</b>				
a. Does the project have the potential to 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?	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	X			

	Potentially Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
probable future projects)?				
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X			

## 6.2.2 Discussion of Environmental Evaluation

### I. Aesthetics. a. Would the project have a substantial adverse effect on a scenic vista?

Answer: Potentially Significant Impact

The lake management implementation alternatives listed below are not expected to be of the size or scale to result in the obstruction of any scenic vista or view open to the public.

- Maintain lake levels
- Floating hydroponic nesting islands

These activities may require the use of a boat for a few hours/days for implementation or maintenance. This boat usage is not anticipated to cause an obstruction of a scenic view at the lake.

#### Dredging

Dredging will require the use of bulldozers and backhoes in a dry lake. There may be visual impacts associated with open space areas that are used for the staging of dredging activities and for the temporary stockpiling of material removed from the lake bottom. This will temporarily impact the scenic view of the lake and surrounding area. The obstruction of the scenic view of the Santa Clara Lakes will only be impacted during actual dredging activities. This is not a permanent view obstruction; therefore, this impact is not considered potentially significant.

#### Aeration System

Depending on the type of aeration system selected there may be metal structures and/or solar panels exposed above the surface of the lake. This would be an adverse impact to the scenic view of the Santa Clara Lakes. This impact can be mitigated by creative design and paint to help the structures blend into the background and reduce the contrast with the surrounding environment.

#### Runoff BMPs

Stormwater infiltration BMPs could be aesthetically offensive if not properly designed, sited, and maintained. Many structural BMPs can be designed to provide habitat, recreational areas, and green spaces in addition to improving stormwater quality. Standard architectural and landscape architectural practices can be implemented to reduce impacts.

Upgrades to Lake Hughes Community WWTF

Upgrades to the WWTF will require construction and installation of new equipment. These upgrades are not anticipated to have a significant impact on a scenic vista. The Lake Hughes Community WWTF is currently in operation and the industrial aesthetic of the plant is not anticipated to be significantly altered as a result of TMDL implementation.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**I. Aesthetics. b.** Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Answer: No Impact

There are no state scenic highways within the vicinity of the Santa Clara lakes.

**I. Aesthetics. c.** Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Answer: Potentially Significant Impact

See response to I. Aesthetics. a.

**I. Aesthetics. d.** Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Answer: Less than Significant Impact

Certain BMPs may employ solar panels for electricity to operate. The potential glare from these solar panels can be mitigated by siting them away from receptors, using shielding, or using alternative photovoltaic panels, which absorb light and do not produce glare.

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

Answer: No Impact

A search of the *California Important Farmland Finder* (<http://maps.conservation.ca.gov/ciff/ciff.html>), hosted by the Department of Conservation, on January 8, 2015 did not identify any Prime Farmland, Unique Farmland or Farmland of Statewide Importance within the Santa Clara Lakes sub-watershed.

**II. Agriculture and Forest Resources b.** Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Answer: No Impact

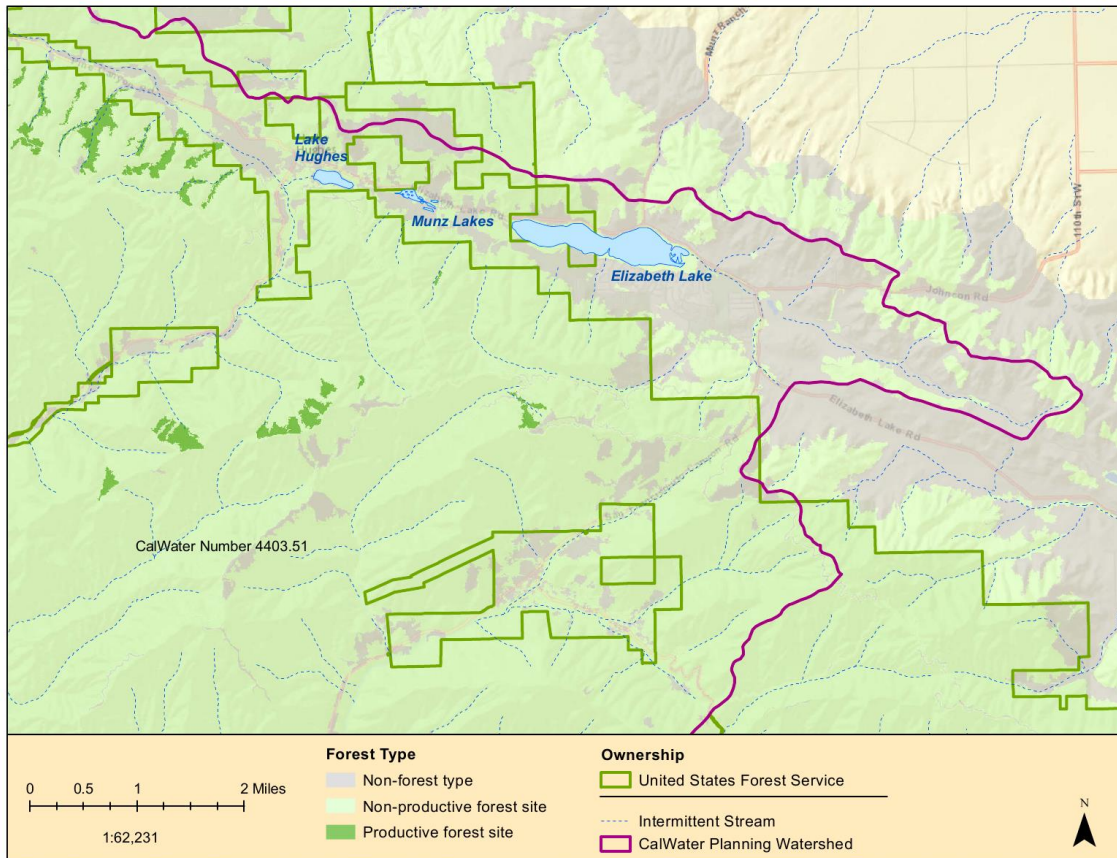
There are no Williamson Act contracts within main land Los Angeles County, including the Santa Clara Lakes sub-watershed. Nor are there any agricultural lands within the Santa Clara Lakes sub-watershed (Tetra Tech 2015). Consequently, implementation of the TMDL is not expected to conflict with any existing zoning for agricultural use or any Williamson Act contracts.

**II. Agriculture and Forest Resources c.** Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Answer: No Impact

The California Department of Forestry and Fire Protection (CAL FIRE) tracks data on timberland in California and has identified no timberland, defined by CAL FIRE as productive forest sites, in the Santa Clara Lakes sub-watershed (Figure 6-2). Additionally, there are no timber processing mills in the vicinity.

**Figure 6-2. Forest Land and Timberland in the Santa Clara Lakes Sub-Watershed**



The Santa Clara Lakes sub-watershed includes forested areas and a portion of the sub-watershed is under the jurisdiction of the U.S. Forest Service as part of the Angeles National Forest. See response II. Agriculture and Forest Resources d. regarding potential impacts of the TMDL on forest land.

**II. Agriculture and Forest Resources d.** Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Answer: No Impact

A portion of the Santa Clara Lakes sub-watershed is under the jurisdiction of the U.S. Forest Service as part of the Angeles National Forest.

Implementation of the TMDL is not expected to result in loss of forest land or conversion of forest land to non-forest use. The following lake management alternatives would act within the Santa Clara Lakes themselves and should not require the conversion of any existing land uses:

- Dredging
- Aeration system
- Maintain lake levels
- Floating hydroponic nesting islands

None of the reasonably foreseeable runoff BMPs to implement the TMDL would result in loss or conversion of forest land. Stormwater BMPs would be located near existing storm drains. Nonpoint source BMPs would be installed near and around the lakes and include natural features that would not conflict with existing use of the forest.

Upgrades to Lake Hughes WWTF

Upgrades to the Lake Hughes WWTF would occur on land where the WWTF is currently operating and is not anticipated to result in alterations of any land uses.

Septic System Upgrades

The upgrading of septic systems in the Santa Clara Lakes sub-watershed is not anticipated to result in the loss or conversion of forest land. All structural modifications resulting from septic system upgrades would be implemented on septic systems which are currently in place.

**II. Agriculture and Forest Resources e.** Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Answer: No Impact

See responses to II. Agriculture and Forest Resources a and II. Agriculture and Forest Resources b.

**III. Air Quality a.** Would the project conflict with or obstruct implementation of the applicable air quality plan?

Answer: Potentially Significant Impact

Air quality in the area surrounding the Santa Clara Lakes falls under the jurisdiction of the California Air Resources Board (ARB) and the Antelope Valley Air Quality Management District (AVAQMD). The ARB is responsible for controlling mobile emission sources statewide, while the AVAQMD is responsible for enforcing the standards that apply to stationary sources in the Antelope Valley and northern Los Angeles County. The AVAQMD is currently designated as nonattainment for the State particulate and ozone standards.

Some of the implementation alternatives for the TMDL may result in air quality impacts from short-term emissions due to construction-related equipment and vehicles, as well as ongoing operation. The following analysis focuses on air quality impacts associated with the construction and operation of the potential implementation alternatives

#### Dredging

Dredging will require the use of heavy equipment, including earth moving vehicles, such as bulldozers and backhoes, and trucks to transport dredged material. Adverse impacts to ambient air quality may result from short-term dredging operations and increased truck traffic for dredge material transportation. These impacts are temporary and can be mitigated. If dredging occurs in a dry lake, it has the potential to aerate dust from the lake. Potential mitigation measures include dust suppression and covering piles of dredged material.

#### Aeration System

The installation of the aeration system will require workers and vehicles to transport aerators to the lake. These impacts are temporary and can be mitigated by the use of low emission vehicles as well as other AVAQMD recommended mitigation measures.

#### Maintain Lake Level

Maintaining the lake levels in the Santa Clara Lakes is not expected to impact ambient air quality. However, if additional pipes are needed to transport a source of supplemental water to a lake, there may be adverse impacts to ambient air quality from construction. The construction activities of pipe installation may cause short-term increases in traffic and may require the use of heavy equipment, both of which contribute to air emissions. Construction BMPs, such as the use of low emission vehicles, can be implemented to mitigate air impacts along with other AVAQMD recommended mitigation measures.

#### Floating Islands/Hydroponic Nesting Islands

The installation of the floating hydroponic islands will require workers and vehicles to transport the islands to the lake. These impacts are temporary and can be mitigated by the use of low emission vehicles as well as other AVAQMD recommended mitigation measures

#### Runoff BMPs and Upgrades to Lake Hughes WWTF

Short term increases in traffic during the construction and installation of infiltration or filtration devices and long-term intermittent increases in traffic caused by ongoing maintenance of these devices (e.g., delivery of materials and maintenance activities) are potential sources of increased air pollutant emissions. Construction activities could also potentially cause re-suspension of dry sediments. However, emission levels for potentially emitted pollutants are expected to be below the AVAQMD Air Quality Significance thresholds considering the scale of the TMDL program. Detailed analysis should be conducted at project level. Any potential air emissions resulting from construction or maintenance activities would be subject to regulation by AVAQMD or the California Air Resources Board.

### Septic System Upgrades

Adverse impacts to air quality from septic system upgrades may result from short-term increases in traffic during the construction and operational activities. These impacts of increased air pollutant emissions from vehicles and equipment will be temporary, localized to project sites, and can be mitigated.

Mitigation measures for increased air emissions due to increased vehicle trips or increased use of construction and earth moving equipment include: (1) use of construction and maintenance vehicles with lower-emission engines, (2) use of soot reduction traps or diesel particulate filters, (3) use of emulsified diesel fuel, (4) design of treatment devices to minimize the frequency of maintenance trips, and (5) proper maintenance of construction vehicles. Mitigation measures for re-suspension of sediments caused by construction and dredging activities include the use of vapor barriers and moisture controls to reduce transfer of small sediments to air. Exposed areas can be revegetated or covered to reduce fugitive dust.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**III. Air Quality b.** Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Answer: Potentially Significant Impact

See response to III. Air Quality a.

**III. Air Quality c.** Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Answer: Potentially Significant Impact

The AVAQMD is currently designated as nonattainment for the State particulate and ozone standards. See response to III. Air Quality a. for a discussion of potential impacts from each implementation alternative.

**III. Air Quality d.** Would the project expose sensitive receptors to substantial pollutant concentrations?

Answer: Potentially Significant Effect

According to U.S. EPA, sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides,



and other pollutants. Extra care must be taken when dealing with contaminants and pollutants in close proximity to areas recognized as sensitive receptors.

Potential exposure of sensitive receptors to substantial pollutant concentrations are best addressed at the project level. Since the Regional Water Board cannot specify the manner of compliance with the TMDL, the Regional Water Board cannot specify the exact location of structural treatment devices. The various entities that might install these devices will need to identify local sensitive receptors as part of a project-level analysis to ensure that projects minimize pollutant exposure.

Hughes-Elizabeth Lakes Union Elementary School is located at 16633 Elizabeth Lake Road, Lake Hughes, CA 93532. This location is midway between Elizabeth Lake and Munz Lakes. The lakes themselves are more than one-quarter mile away from the elementary school; however, since selection of implementation options and their placement has yet to be determined by implementing parties, it is possible that selected options will have air quality effects on the school. Mitigation measures should be utilized such that air quality impacts resulting from TMDL implementation have a less than significant impact on the school's students and personnel. Other potential sensitive receptors in the Santa Clara Lakes sub-watershed should be identified by implementing parties on a project-level basis.

The response in this document to III. Air Quality a includes a discussion of potential mitigation measures for air quality impacts due to foreseeable implementation options of the TMDL.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**III. Air Quality e.** Would the project create objectionable odors affecting a substantial number of people?

Answer: Potentially Significant Impact

#### Dredging

Dredging may result in objectionable odors due to the anaerobic nature of sediments. However, this odor would be temporary, localized to personnel operating the dredge, and would quickly dissipate to a less than significant impact. Objectionable odors may also be created due to exhaust from the operation of equipment and vehicles, but these impacts are also temporary and localized to the operation of heavy equipment. BMPs can be implemented to mitigate air quality impacts.

#### Aeration System

It is not expected that an aeration system will result in objectionable odors. Aeration systems would induce greater oxygenation of lake waters, increasing the dissolved oxygen. A more oxygenated system would reduce the amount of mercaptans and hydrogen sulfides, prevalent in anoxic conditions and responsible for the pungent odor common in systems like swamps and

bogs, which would reduce the amount of objectionable odors that exist in the ambient environment resulting in an overall positive impact.

#### Maintain Lake Levels

Maintaining the lake levels in the Santa Clara Lakes is not expected to result in objectionable odors. However, if additional pipes are constructed to transport a source of supplemental water to the lake there may be short-term adverse odors due to exhaust from construction equipment and vehicles. These impacts would be temporary and localized to construction activities alone. Construction BMPs can be implemented to mitigated air impacts along with the use of low emission vehicles as well as other AVAQMD recommended mitigation measures.

#### Floating Islands/Hydroponic Nesting Islands

Floating hydroponic nesting islands are installed and reside on the lake surface. The placement and anchoring of the floating hydroponic nesting islands may result in the creation of objectionable odors. These odors are associated with the use of motorized vehicles and boats. Any impact would be temporary and short term. The operation of floating hydroponic islands is not anticipated to result in the creation of objectionable odors, however proper design, selection of the less odorous plants, and regular inspection and maintenance may also help mitigate the creation objectionable odors.

#### Runoff BMPs

Runoff BMPs may be a source of objectionable odors if design allows for water stagnation or collection of water with sulfur-containing compounds. Runoff is not likely to contain sulfur-containing compounds, but stagnant water could create objectionable odors. For example, improper design or maintenance of infiltration BMPs may lead to clogging and stagnation of water creating objectionable odors. Vegetated systems require inspection and maintenance, replacing diseased and dead or dying plants to prevent build-up of detritus, and replacement of existing plants to increase efficiency and maximize nutrient uptake. Routine monitoring, inspection, and maintenance can help prevent equipment malfunctions.

Mitigation measures to eliminate odors caused by stagnation include inspections to ensure that intake structures are not clogged or pooling water. During maintenance, odorous sources could be uncovered for as short of a time period as possible. To the extent possible, structural BMPs could be designed to minimize stagnation of water (e.g., allow for complete drainage within 48 hours).

#### Upgrades to Lake Hughes Community WWTF

Upgrades to the Lake Hughes Community WWTF may result in longer retention times of water within the WWTF and thus increased objectionable odors. Objectionable odors may also be created due to exhaust from the operation of equipment and vehicles during installation and construction off WWTF upgrades; however, these impacts are temporary and localized to the operation of heavy equipment. BMPs can be implemented to mitigate these air quality impacts.

#### Septic System Upgrades

Installation of seepage pits and shallow dispersal systems as part of septic system upgrades may result in stagnation of water and an increase in objectionable odors. Mitigation measures to eliminate odors caused by stagnation include aeration and design of structural BMPs to minimize stagnation of water (e.g., allow for complete drainage within 48 hours).

Objectionable odors may be created due to exhaust from the operation of equipment and vehicles while septic systems are being upgraded; however, these impacts are temporary and localized to

the operation of heavy equipment. BMPs can be implemented to mitigate these air quality impacts.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

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

Answer: Potentially Significant Impact

Data from the California Department of Fish and Wildlife indicates the presence of sensitive species within a two-mile radius surrounding the Santa Clara Lakes. *Haliaeetus leucocephalus* (bald eagle) is fully protected and has been found in the Santa Clara Lakes area. The vascular plant *Chorizanthe parryi* var. *fernandina*, commonly known as the San Fernando Valley spineflower, is listed as a federal candidate species and as endangered by the State of California. The vascular plant *Navarretia fossalis*, common name spreading navarretia, is a federally-listed threatened species. *Pandion haliaetus* (osprey) is on the watch list and *Aquila chrysaetos* (golden eagle) is on the watch list and fully protected. Species of Special Concern in the Santa Clara Lakes area include *Circus cyaneus* (northern harrier), *Charadrius montanus* (mountain plover), *Contopus cooperi* (olive-sided flycatcher), *Setophaga petechia* (yellow warbler), *Agelaius tricolor* (tricolored blackbird), *Perognathus alticolus inexpectatus* (Tehachapi pocket mouse), *Taxidea taxus* (American badger), *Emys marmorata* (western pond turtle), and *Phrynosoma blainvillii* (coast horned lizard).

The status of sensitive species, including possible species additions and removals for particular areas, is updated regularly based on new information and should be evaluated for each specific project. Depending on the implementation alternative selected, direct or indirect impacts to special-status animal species may possibly occur during and after construction. If special-status species are present during activities such as ground disturbance, construction, operation, and maintenance activities associated with the potential projects, direct impacts to special-status species could result, including the following:

- Direct loss of a special-status species
- Increased human disturbance in previously undisturbed habitats
- Mortality by construction or other human-related activity
- Impairing essential behavioral activities, such as breeding, feeding or shelter/refugia
- Destruction or abandonment of active nest(s)/den sites
- Direct loss of occupied habitat

In addition, potential indirect impacts may include but are not limited to, the following:

- Displacement of wildlife by construction activities
- Disturbance in essential behavioral activities due to an increase in ambient noise levels and/or artificial light from outdoor lighting around facilities

Mitigation measures should be implemented to ensure that special-status plants and animals are not negatively impacted, nor their habitats diminished. For example, when the specific projects are developed and sites identified, a biological survey and/or a search of the California Natural Diversity Database (CNDDDB) should be performed to confirm that any potentially special-status plant and animal species in the site area are properly identified and protected as necessary.

If special-status species are potentially near the project site area, as required by the Endangered Species Act (ESA), two weeks prior to grading or the construction of facilities and per USFWS and/or CDFG protocols, pre-construction surveys to determine the presence or absence of special-status species would be conducted. The surveys should extend an appropriate distance (buffer area) off site to determine the presence or absence of any special-status species adjacent to the project site. If special-status species are present on the project site or within the buffer area, mitigation would be required under the ESA. To this extent, mitigation measures shall be developed with the USFWS and CDFG to reduce potential impacts.

The following is an analysis of potential implementation actions that may be utilized to minimize impacts on biological resources while implementing the TMDL:

#### Dredging

Sensitive species could potentially be impacted by a dredging operation. This operation would create noise in the lake area and require the removal of some of the shallow water vegetation that is often used as habitat. Transportation of equipment could also damage area surrounding the lakes. Mitigation measures will be required to ensure the least disturbance possible. These measures could include a biological and habitat survey to identify sensitive species and suitable habitat areas. Nesting surveys could also be conducted to ensure that disturbing activities do not take place during the nesting season.

Special status fish species have not been identified in the Santa Clara Lakes area. However, it is recommended that a CNDDDB search be conducted and, if necessary, a biological survey prior to the initiation of dredging activities.

Sensitive plant species have been identified in the Santa Clara Lakes sub-watershed; however, these are not aquatic species and therefore should not be directly affected by in-lake dredging. If sensitive plant species are identified in transit routes or staging areas for dredging equipment, mitigation measures will be used to reduce disturbance of these species.

If sensitive aquatic plant species are identified during the project-level environmental analysis, additional mitigation measures will be necessary. Hydraulic dredging in areas with dense vegetation beds can cause clogging of the dredge pipeline. It is often suggested that temporary plant control, such as harvesting, take place prior to hydraulic dredging activities. Recolonization of dredged areas is typically gradual, but provides the opportunity to improve the vegetative habitat to enhance the ecology of the lake. Dredging may also impact the ability of rooted aquatic vegetation to colonize the main body of the lake. The amount of sediment removed (i.e. the new depth) and the associated light penetration will be critical to the ability of submerged plants to grow.

### Aeration System

The installation of aerators is not expected to cause a reduction in unique, rare or endangered animal species. The lake aeration system will be installed in the lake itself and should not impact terrestrial species. The installation process may cause temporary and short term disturbance to species in the lake. However, these impacts can be mitigated by conducting appropriate biological surveys and selecting appropriate times for the work to be conducted, such as conducting aerator installation outside of nesting season as even minor disturbance can cause a nest to be abandoned.

### Maintain Lake Levels

It is not expected that supplemental water additions to maintain water levels in the Santa Clara Lakes will cause a reduction in rare or endangered species. Maintaining the lake levels may promote the propagation of the lake habitat and ensure the survival of rare or endangered species which should result in a positive impact.

### Floating Islands/Hydroponic Nesting Islands

The floating hydroponic islands would be placed in open water portions of the Santa Clara Lakes. It is not expected that floating hydroponic islands would cause a reduction in the rare or endangered animals in or near the Santa Clara Lakes. In fact, the nesting islands would be designed and vegetated to provide additional high quality habitat for special status bird species at the lake, thereby potentially having a positive affection on sensitive species. Habitats on floating hydroponic islands can be designed to mimic the surrounding riparian community.

### Runoff BMPs

If biofiltration and infiltration BMPs are used to achieve the TMDL, impact to plant life in terms of diversity of species, number of species, or reduction in the number unique, rare or endangered species would most likely occur if facilities are located in critical habitat. As a mitigation measure, BMPs may be sited away from critical habitat.

Proper timing may need to be exercised to avoid construction during critical periods of plant and animal development. Consultation with agencies including the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS), having jurisdiction over identified resources would occur to identify specific mitigation measures such as restoration efforts designed to re-vegetate unique, rare or endangered species of plants. When the specific projects are developed and sites identified, a search of the California Natural Diversity Database could be employed to confirm that any potentially sensitive plant species in the site area are properly identified and protected as necessary. Plant surveys for special-status-plant species could be conducted at each site location, if appropriate.

If sensitive plant and animal species occur on the project site, mitigation shall be required in accordance with the Endangered Species Act. Mitigation measures shall be developed in consultation with the CDFW and the USFWS. Responsible agencies should endeavor to avoid compliance measures that could result in reduction of the numbers of any unique, rare or endangered species of plants and instead opt for such measures as enforcing litter ordinances in sensitive habitat areas. Plant number and species diversity could be maintained by either preserving them prior to, during, and after installation of facilities or by re-establishing and maintaining the plant communities post construction.

### Upgrades to Lake Hughes Community WWTF

Upgrades to the Lake Hughes Community WWTF will require construction and disturbance of land, temporarily during construction and potentially permanently depending on placement of

upgrade systems. Surveys and mitigation measures discussed earlier in this section of the environmental analysis can be applied to minimize any impact to candidate, sensitive, or special status species.

#### Septic System Upgrades

Septic system upgrades may require construction and disturbance of land, temporarily during construction and potentially permanently depending on placement of upgrade systems. Surveys and mitigation measures discussed earlier in this section of the environmental analysis can be applied to minimize any impact to candidate, sensitive, or special status species.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**IV. Biological Resources b.** Would the project 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 Game or US Fish and Wildlife Service?

Answer: Potentially Significant Impact

The Santa Clara Lakes lie at the headwaters of the Santa Clara River. As such, disturbance to habitat surrounding the lakes can have local impacts on the ecosystem surrounding the individual lakes as well as downstream impacts on the Santa Clara River watershed. As an example, installation of structural BMPs can result in temporary habitat disturbances resulting from transport of equipment and personnel. Long term impacts can result from permanent placement of BMPs and increased access of the habitat by maintenance personnel.

Specific impacts of potential implementation options on biological resources and mitigation measures are discussed in *IV. Biological Resources a.* In addition to previously discussed mitigation measures, implementing parties should identify plant and animal species endemic to riparian communities near the Santa Clara Lakes and, if necessary, implement mitigation measures including placement of BMPs such that habitat disturbance is minimized and potential habitat restoration following installation of structural BMPs.

Maintaining the lake levels of the Santa Clara Lakes will entail adding more water to the lakes. In addition to ensuring adequate water is present in the lakes, as the water makes its way through the watershed this implementation option may have impacts including groundwater recharge and increased water downstream of the Santa Clara Lakes. Mitigation measures should ensure that riparian communities are not diminished by removal of water from the location where the water added to the lakes is sourced.

**IV. Biological Resources c.** Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal, pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Answer: Potentially Significant Impact

Implementation of the TMDL may impact wetlands in the Santa Clara Lakes sub-watershed. Potential adverse effects on wetlands are best addressed at the project level. Specific impacts of potential TMDL implementation options on wetlands will be similar to those impacts on biological resources. These potential impacts and potential mitigation measures are discussed in *IV. Biological Resources a.*

**IV. Biological Resources d.** Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Answer: Potentially Significant Impact

#### Dredging

Dredging may potentially impact the movement, migration and nurseries of fish or wildlife. If dredging activities take place during migrations, during breeding season, or near active nurseries, the noise and associated activities may adversely impact the some of the animals, including birds. This impact can be mitigated by conducting dredging activities outside of critical seasons and by transporting equipment such as not to disturb potential nurseries or migratory routes.

#### Aeration System

Installation, use, and maintenance of an aeration system are not anticipated to impact the movement, migration or nurseries of fish or wildlife. The aeration system can be sited below the lake surface and redesigned to further mitigate the impact on migratory animals, including birds. Potential noise and land disturbance impacts during installation of aeration systems can be mitigated by conducting installation activities outside of critical seasons and by transporting equipment such as not to disturb potential nurseries or migratory routes.

#### Maintain Lake Levels

It is not expected that supplemental water additions to maintain the lake levels will impact the movement, migration and nurseries of fish or wildlife. Maintaining lake levels will promote added lake habitat for migratory animals resulting in a positive impact.

#### Floating Islands/Hydroponic Nesting Islands

It is not expected that floating hydroponic islands would impact the movement, migration and nurseries of fish or wildlife. It is anticipated that the floating nesting islands would positively impact animal movement and migration by providing additional resting and foraging habitat for migrating waterfowl.

#### Runoff BMPs

Construction activities associated with the implementation of runoff BMPs may impact the movement, migration and nurseries of fish or wildlife.

Runoff BMPs may potentially impact wildlife crossings or migration routes. If structural treatment devices are implemented at locations where they would cause foreseeable adverse impacts on species migration or movement patterns, mitigation measures could be implemented to ensure that impacts which may result in a barrier to the migration or movement of animal is less than significant. Any site-specific wildlife crossings should be evaluated in consultation with

CDFW. If a wildlife crossing could be significantly impacted in an adverse manner, the design of the project should include a new wildlife crossing in the same general location.

Avian species may use portions of potential project sites, including ornamental vegetation, during breeding season and may be protected under the Migratory Bird Treaty Act (MBTA) while nesting. The MBTA includes provisions for protection of migratory birds under the authority of the CDFW and USFWS. The MBTA protects over 800 species including, geese, ducks, shorebirds, raptors, songbirds, and many other relatively common species. If construction occurs during the avian breeding season for special status species and/or MBTA-covered species, generally February through August, then prior (within 2 weeks) to the onset of construction activities, surveys for nesting migratory avian species should be conducted on the project site following CDFG and/or USFWS guidelines. If no active avian nests are identified on or within 200 feet of construction areas, no further mitigation would be necessary. If active nests for protected avian species are found within the construction footprint or within the 200-foot buffer zone, construction would be required to be delayed within the construction footprint and buffer zone until the young have fledged or appropriate mitigation measures responding to the specific situation are developed in consultation with CDFG or USFWS. These impacts are highly site specific, and would require a project-level analysis and mitigation plan.

#### Upgrades to the Lake Hughes Community WWTF

Upgrades to the Lake Hughes Community WWTF will require construction and disturbance of land and habitat, temporarily during construction and potentially permanently depending on placement of upgrade systems. Surveys and mitigation measures discussed earlier in this section of the environmental analysis can be applied to minimize any impact to migration corridors or nursery sites.

#### Septic System Upgrades

Septic system upgrades will require construction and disturbance of land and habitat, temporarily during construction and potentially permanently depending on placement of upgrade systems. The scale of individual septic system upgrades is anticipated to be of a small size such that impacts to migration corridors are unlikely. Surveys and mitigation measures discussed earlier in this section of the environmental analysis can be applied to minimize any impact to migration corridors or nursery sites.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**IV. Biological Resources e.** Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Answer: Potentially Significant Impact

Potential conflicts with local policies or ordinances protecting biological resources are best addressed at the project level. The various entities implementing the TMDL will need to identify



local policies as part of a project-level analysis to ensure that projects comply with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Land adjacent to Elizabeth Lake and in other areas of the Santa Clara Lakes sub-watershed is part of the Angeles National Forest. In addition to any other potential local conservation plans, the Forest Plan for the Angeles National Forest will need to be considered during evaluation of individual projects. Implementing parties will need to obtain necessary permissions from the U.S. Forest Service prior to beginning implementation of the TMDL.

**IV. Biological Resources f.** Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Answer: Potentially Significant Impact

Potential conflicts with any habitat conservation plans are best addressed at the project level. Land adjacent to Elizabeth Lake and in other areas of the sub-watershed is part of the Angeles National Forest. In addition to any other potential local habitat conservation plans, the Forest Plan for the Angeles National Forest will need to be considered during evaluation of individual projects. Implementing parties will need to obtain necessary permissions from the U.S. Forest Service prior to beginning implementation of the TMDL.

**V. Cultural Resources a.** Would the project cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Answer: Potentially Significant Impact

Potential disturbance of a historical resource is best addressed at the project level. The various entities that might install these devices will need to identify potential historical resources as part of a project-level analysis to ensure that projects comply with any plans and ordinances. During the project-level environmental analysis, the South Central Coastal Information Center at CSU Fullerton, the California Native American Heritage Commission, and the U.S. Forest Service should be consulted regarding potential cultural resources in the Santa Clara Lakes sub-watershed. If historical resources are identified on or near project locations, mitigation measures, including placement of structural BMPs to minimize impact on the historical resource, should be implemented.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**V. Cultural Resources b.** Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Answer: Potentially Significant Impact

Potential disturbance of an archaeological resource is best addressed at the project level. The various entities that might install these devices will need to identify potential archaeological resources as part of a project-level analysis. During the project-level environmental analysis, the South Central Coastal Information Center at CSU Fullerton, the California Native American Heritage Commission, and the U.S. Forest Service should be consulted regarding potential cultural resources in the Santa Clara Lakes sub-watershed. A field survey may need to be conducted to determine if archaeological resources are present at the project site. In the event that archaeological resources are discovered in project area during construction, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the archaeological discovery.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**V. Cultural Resources c.** Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Answer: Potentially Significant Impact

Potential disturbance of a paleontological resource is best addressed at the project level. The various entities that might install these devices will need to identify potential paleontological resources as part of a project-level analysis. During the project-level environmental analysis, the South Central Coastal Information Center at CSU Fullerton, the California Native American Heritage Commission, and the U.S. Forest Service should be consulted regarding potential cultural resources in the Santa Clara Lakes sub-watershed. In the event that paleontological resources are discovered in project area during construction, all work shall be halted in the vicinity of the archaeological discovery until a qualified scientist can visit the site of discovery and assess the significance of the paleontological discovery.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**V. Cultural Resources d.** Would the project disturb any human remains, including those interred outside of formal cemeteries?

Answer: Potentially Significant Impact

Potential disturbance of human remains is best addressed at the project level. The various entities that might install these devices will need to identify potential human remains as part of a project-level analysis. During the project-level environmental analysis, the South Central Coastal Information Center at CSU Fullerton, the California Native American Heritage Commission, and the U.S. Forest Service should be consulted regarding potential cultural resources in the Santa Clara Lakes sub-watershed. In the event that human remains are discovered in project area during construction, all work shall be halted in the vicinity of the discovery until a qualified expert can visit the site of discovery and assess the significance of the discovery.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**VI. Geology and Soils a.** Would the project 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?

Answer: No Impact

None of the lake management strategies or runoff BMPs would expose people or structures to any seismic-related hazards.

Upgrades to the Lake Hughes Community WWTF and Septic Systems

The lakes are located along the San Andreas Fault, and facilities located near the lakes are at risk of fault ruptures, earthquakes, and other seismic-related hazards. However, upgrades to the Lake Hughes Community WWTF or septic systems, as they are existing facilities, would not create any additional risk to people or structures from seismic-related hazards.

**VI. Geology and Soils b.** Would the project result in substantial soil erosion or the loss of topsoil?

Answer: Less than Significant Impact

The lake management strategies will not result in substantial soil erosion or the loss of topsoil. The implementation of runoff BMPs, by their design would reduce the amount of soil erosion.

Upgrades to the Lake Hughes WWTF Septic Systems

Disruption of the soil may occur during construction activities associated with upgrades to the Lake Hughes WWTF or existing septic systems. To the extent that any soil is disturbed during construction, standard construction techniques, including but not limited to, shoring, piling and soil stabilization can mitigate these potential short-term impacts.

**VI. Geology and Soils c.** Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Answer: Potentially Significant Impact

The lake management strategies would occur within the lake waters or in sediments and would not be of the size or scale to cause unstable soils or geologic units.

Runoff BMPs

BMPs like biofiltration, vegetated swales, filter strips, bio retention, and infiltration trenches would not likely be of the size or scale to result in unstable earth conditions or in changes in geologic substructures. Runoff BMPs would likely be located in areas away from structures. Proper sizing and siting is necessary to ensure that BMPs are installed away from areas with loose or compressible soils, areas with slopes that could destabilize from increased groundwater flow. Geological surveys can be conducted prior to installation to aid in siting the devices.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**VI. Geology and Soils d.** Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Answer: Potentially Significant Impact

The potential for impacts from expansive soil are best evaluated on a project basis. Since the Regional Water Board cannot specify the manner of compliance with the TMDL, the various entities that might install these devices will need to identify local soil characteristics as part of a project-level analysis to ensure that implementation of the TMDL will not create substantial risks to life or property.

Stormwater infiltration BMPs, upgrades to the Lake Hughes Community WWTF, and Septic System Upgrades require construction on land and have the opportunity to be placed on multiple

soil types. The foreseeable structural BMP options that might be used to comply with the TMDL are relatively small in size. Soil surveys conducted during the project development will assist in project-level planning to minimize any risk to life or property that might result from construction on expansive soil. A geotechnical engineer may be required as part of the project team to evaluate soil types at the project site.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**VI. Geology and Soils e.** Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Answer: No Impact

Septic system upgrades are a reasonably foreseeable implementation measure for the TMDL. Implementation of upgrades would be for existing systems and would not result in the introduction of septic systems to locations where they are not currently located. No new impact is expected on soils from introduction of wastewater as a result of TMDL implementation.

**VII. Greenhouse Gas Emissions a.** Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Answer: Potentially Significant Impact

Several of the reasonably foreseeable methods of compliance will require the production of energy. The production of the energy will create greenhouse gases. Analyses of energy use and CO<sub>2</sub> production of potential BMPs to be utilized in the Klamath River Basin have been analyzed and the results of this analysis may be used by implementing parties of the TMDL to reduce environmental impacts during TMDL implementation (Stillwater Sciences et al., 2013).

The following implementation alternatives may generate greenhouse gases for a limited time during construction and/or short-duration implementation; however, any greenhouse gas emissions generated by these alternatives will be of a limited quantity and duration:

- Hydraulic and traditional dredging
- Floating islands/hydroponic nesting islands
- Septic system upgrades

#### Aeration system

An aeration system will require energy input to drive the system. Depending on the source of this energy, greenhouse gases may be generated on an ongoing basis. Mitigation measures, such as the use of solar energy to drive the aeration system, can reduce or eliminate the generation of greenhouse gas emissions to a less than significant impact.

#### Maintain lake level

Movement of water into the lake(s) will require energy input. Depending on the source of this energy, greenhouse gases may be generated on an ongoing basis. Mitigation measures, such as the use of solar energy to drive the aeration system, can reduce or eliminate the continuous generation of greenhouse gas emissions to a less than significant impact.

#### Runoff BMPs

Runoff BMPs, such as vegetated swales, filter strips, bioretention and infiltration trenches will require energy input during construction and maintenance. Some of these implementation options would also play a role in removing carbon dioxide from the atmosphere if vegetation is incorporated in the BMP.

#### Upgrade to Lake Hughes Community WWTF

Upgrades to the Lake Hughes Community WWTF will require energy input to drive new components of the water treatment system. Depending on the source of this energy, greenhouse gases may be generated on an ongoing basis. Mitigation measures, such as the use of solar energy can reduce or eliminate the generation of greenhouse gas emissions to a less than significant impact.

#### Septic System Upgrades

Septic systems produce greenhouse gases including methane, carbon dioxide, and nitrous oxide (WERF, 2010). Septic system upgrades implemented to comply with the TMDL will not result in an increased number of septic systems or change the amount of waste requiring treatment by septic systems in the Santa Clara Lakes sub-watershed.

Septic system upgrades will require intermittent energy input during construction and maintenance. Once operational, the upgraded systems require ongoing energy input to drive components of the septic system; however, these upgrades will be on systems that are currently in use and it is not anticipated that upgrades will result in a significant net increase in greenhouse gases due to energy requirements to drive the systems. Mitigation measures, such as the use of solar energy can reduce or eliminate the generation of greenhouse gas emissions to a less than significant impact.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**VII. Greenhouse Gas Emissions b.** Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Answer: Less than Significant Impact

In 2006, California passed AB 32, the Global Warming Solutions Act of 2006, which set the 2020 greenhouse gas emissions reduction goal into law. The current 2020 GHG emission limit is 431

million metric tons of CO<sub>2</sub> equivalents (MMTCO<sub>2</sub>e) (ARB, 2014). The 2020 target of 431 MMTCO<sub>2</sub>e requires the reduction of 78 MMTCO<sub>2</sub>e, or approximately 15 percent, from the State's projected 2020 emissions of 509 MMTCO<sub>2</sub>e.

In December 2007, the ARB adopted regulations which require mandatory reporting for certain types of facilities. Facilities for which reporting is required include cement plants, oil refineries, fossil-fueled electric-generating facilities/providers, cogeneration facilities, hydrogen plants and other stationary combustion sources that emit more than 25,000 MMTCO<sub>2</sub>e, make up 94 percent of the point source CO<sub>2</sub>e emissions in California (ARB, 2008).

In June 2008, the ARB published its Climate Change Scoping Plan (ARB, 2008). An update to the Climate Change Scoping Plan was published in May 2014 (ARB, 2014). The Scoping Plan proposes a comprehensive set of actions designed to reduce overall carbon emissions in California. When compared to the estimated greenhouse gas reduction goal of 78 million tons CO<sub>2</sub>e by 2020, and the benchmark of 25,000 MMTCO<sub>2</sub>e used to determine greenhouse gas emission reporting requirements for major facilities, the relative contributions of the TMDL implementation program to greenhouse gas emissions are small and would not conflict with the state's ability to meet AB 32 goals.

In addition, the implementation of this TMDL will not conflict with implementation of State's recommended greenhouse gas reduction measures (ARB, 2014) and emissions from implementation will not have a significant negative effect on global climate change.

See response to VII. Greenhouse Gas Emissions a.

**VIII. Hazards and Hazardous Materials a.** Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Answer: Potentially Significant Impact

There is a possibility that oil and gasoline may be present during implementation and/or operation of the following TMDL implementation alternatives:

- Dredging
- Aeration system
- Maintain lake levels
- Floating hydroponic nesting islands
- Stormwater infiltration BMPs
- Upgrades to Lake Hughes WWTF
- Septic system upgrades

Potential risk of hazard due to transportation of oil and gasoline can be mitigated with proper handling and storage procedures. Compliance with the requirement of California Occupational Health and Safety Administration (Cal OSHA) and local safety regulations during installation, operations, and maintenance of these alternatives would help to prevent any worksite accidents or accidents involving the release of hazardous materials into the environment, which could harm the environment, the public, nearby residents and sensitive receptors such as schools. Mitigation may include properly storing hazardous materials in protected areas with fencing and signs to prevent health hazards.

### Dredging

The Santa Clara Lakes (Lake Hughes, Munz Lakes and Elizabeth Lake) are not listed on the 303(d) list of impaired water bodies for toxic substances in the sediment. Implementing parties will need to conduct analyses to confirm that toxic compounds are not present in the sediment prior to commencing dredging in the Santa Clara Lakes. If analytical data which characterizes the lake sediment demonstrates that toxic compounds are present, personnel conducting the dredging activities may be exposed to this sediment and this may be a potential health hazard. This potential hazard can be mitigated by all personnel wearing appropriate protective clothing and have received health and safety/hazardous materials training. The health and safety plan prepared for a dredging project should address potential impacts and detailed mitigation measures.

### Runoff BMPs

Implementation of runoff BMPs may also create a potential health hazard if facilities are not properly maintained to include vector (mosquito) control. This potential adverse impact can be mitigated by designing systems that minimize stagnant water conditions and/or by requiring oversight and treatment of those systems by vector control agencies. Stagnant water is minimized by allowing for rapid infiltration. Oversight and treatment by vector control agencies may also be considered for individual projects. BMPs should be covered to seal vectors out, but contain access doors to facilitate inspection and mosquito suppression by vector control agencies. Basic housekeeping practices such as removal of debris and upkeep of vegetative pretreatment devices to prevent clogging and stagnation will prevent vector breeding (CASQA, 2003a).

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**VIII. Hazards and Hazardous Materials b.** Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Answer: Potentially Significant Impact

See VII. Hazards and Hazardous Materials a.

**VIII. Hazards and Hazardous Materials c.** Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Answer: Potentially Significant Impact

Hughes-Elizabeth Lakes Union Elementary School is located at 16633 Elizabeth Lake Road, Lake Hughes, CA 93532. This location is midway between Elizabeth Lake and Munz Lakes. The lakes themselves are more than one-quarter mile away from the elementary school; however, since selection of implementation options and their placement has yet to be determined by



implementing parties, it is possible that selected options will have effects within the one-quarter mile zone surrounding the school. Mitigation measures should be utilized such that hazards and hazardous materials from TMDL implementation have a less than significant impact on the school's physical site and its students and personnel.

See response to *VIII. Hazardous and Hazardous Materials a.* for a discussion of specific implementation options, potential effects and mitigation measures. In addition to mitigation measures discussed in this section, preference in site selection should be made to minimize any effects from hazardous materials on local schools.

**VIII. Hazards and Hazardous Materials d.** Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Answer: No Impact

No hazardous materials sites compiled pursuant to Government Code Section 65962.5 were identified in the area immediately surrounding the Santa Clara Lakes during a search of DTSC and Water Boards records. Therefore, it is not foreseeable that implementation of the TMDL would result in a significant hazard to the public or the environment by causing disturbance at such a site.

**VIII. Hazards and Hazardous Materials e.** Would the project for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Answer: No Impact

There are no airports located within the Santa Clara Lakes sub-watershed. Therefore, it is not foreseeable that implementation of the TMDL would result in an airport-related safety hazard.

**VIII. Hazards and Hazardous Materials f.** Would the project for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Answer: No Impact

There are no airports located within two miles of the Santa Clara Lakes. Therefore, it is not foreseeable that implementation of the TMDL would result in an airport-related safety hazard.

**VIII. Hazards and Hazardous Materials g.** Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Answer: Potentially Significant Impact

The Santa Clara Lakes sub-watershed is a rural area accessible via one major road. Increased presence of personnel and equipment, particularly during construction phases of TMDL implementation, may impact emergency response and evacuation plans if proper safety protocols are not followed. Use of proper safety protocols, including emergency safety and evacuation training, can mitigate these risks to a less than significant impact.

**VIII. Hazards and Hazardous Materials h.** Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Answer: Less than Significant Impact with Mitigation

Land adjacent to Elizabeth Lake and other land in the sub-watershed is part of the Angeles National Forest. Mitigation measures are required to minimize and eliminate any risk of wildfire being ignited or fueled by implementation of the TMDL.

Risk of wildfire in the area may increase due to the increased presence of personnel entering the area in order to implement the TMDL. Mitigation measures, such as prohibiting smoking in sensitive areas and ensuring vehicles entering the area are properly maintained, can minimize the risk of a wildfire being ignited.

Wildfire risks for individual implementation options are discussed below:

Dredging

Dredging equipment will require the use of a power source during dredging operations. Use of proper BMPs, including regular maintenance of equipment, can minimize the risk of a wildfire being ignited as a result of this equipment.

Aeration System

Aeration systems require a continuous power source. Use of proper BMPs, including regular maintenance of equipment, can minimize the risk of a wildfire being ignited as a result of this equipment.

Maintain Lake Levels

Aside from the increased presence of personnel discussed above, it is not foreseeable that maintaining lake levels will increase the risk of wildfire around the Santa Clara Lakes.

Floating Islands/Hydroponic Nesting Islands

The type of flora and fauna employed on hydroponic islands may influence susceptibility to wildfire. Mitigation measures, including use of fire-tolerant grasses and plants and regular maintenance, can minimize this risk.

Runoff BMPs

Aside from the increased presence of personnel discussed above, it is not foreseeable that runoff BMPs will increase the risk of wildfire around the Santa Clara Lakes.

Upgrades to Lake Hughes Community WWTF

WWTF upgrades will require a continuous power source. Use of proper BMPs, including regular maintenance of equipment, can minimize the risk of a wildfire being ignited as a result of this equipment.

Septic System Upgrades

Implementation of septic system upgrades will not result in an increase in the number of septic systems in the Santa Clara Lakes sub-watershed. Septic systems require a continuous power source and the potential for increase in risk of a wildfire being ignited due to new needs for power will be dependent on the particular upgrades selected for implementation. Use of proper BMPs,

including regular maintenance of equipment, can minimize the risk of a wildfire being ignited as a result of this equipment. Upgrading older power supplies has the potential to reduce the risk of igniting a wildfire.

**IX. Hydrology and Water Quality a.** Would the project violate any water quality standards or waste discharge requirements?

Answer: Less than Significant Impact

The TMDL implementation options listed below are not expected to violate water quality standards or waste discharge requirements:

- Aeration system
- Maintain lake levels
- Floating hydroponic nesting islands
- Stormwater Infiltration
- Upgrades to Lake Hughes Community WWTF
- Septic system upgrades

The lake management implementation options listed above would all directly improve water quality in the Santa Clara Lakes and it is not reasonably foreseeable that they would violate any water quality standards or waste discharge requirements.

#### Dredging

Traditional dredging would occur when the lake is dry; therefore, no violations of water quality standards or waste discharge requirements are foreseeable as a result of traditional dredging. If hydraulic dredging were employed, which is not likely feasible, it would disturb the sediments and can cause increased turbidity during dredging activities. However, it is reported that this is generally a localized effect and turbidity is rarely above the ambient background for the lake outside of 10-20 feet from the dredge head. Dredging will not create permanent increased turbidity conditions.

The purpose of the TMDL is to attain water quality standards in the Santa Clara Lakes; as such, implementation efforts should have a cumulatively positive effect on water quality.

**IX. Hydrology and Water Quality b.** Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Answer: Potentially Significant Impact

The reasonably foreseeable implementation methods listed below act upon the surface water of the Santa Clara Lakes and will not include direct additions or withdrawals of groundwater or interception of an aquifer by cuts or excavations.

- Hydraulic and traditional dredging
- Aeration system

- Floating hydroponic nesting islands
- Runoff BMPs

#### Maintain Lake Levels

A water source is necessary to maintain the water levels in the Santa Clara Lakes. However, it is not anticipated that groundwater would be used for this purpose such that there may be a deleterious effect on the groundwater itself. Should implementing parties choose to utilize groundwater as a source for the maintenance of lake levels, investigations would need to be conducted to insure that the quantity of water utilized for TMDL implementation would not significantly diminish the aquifer volume.

#### Upgrades to Lake Hughes Community WWTF and Septic System

It is not reasonably foreseeable that upgrades to the Lake Hughes Community WWTF and/or septic systems implemented to comply with the TMDL will alter the volume of groundwater being extracted or recharged in the Santa Clara Lakes sub-watershed.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**IX. Hydrology and Water Quality c.** Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Answer: No Impact

Implementation of the TMDL is not expected to change the drainage pattern of the Santa Clara Lakes sub-watershed in a manner which would result in substantial erosion or siltation. Many of the runoff BMPs would reduce erosion.

**IX. Hydrology and Water Quality d.** Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Answer: No Impact

It is not reasonably foreseeable that the TMDL would alter the drainage area in a manner that would result in flooding.

**IX. Hydrology and Water Quality e.** Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Answer: No Impact

It is not reasonably foreseeable that implementation of the TMDL would create or contribute runoff.

**IX. Hydrology and Water Quality f.** Would the project otherwise substantially degrade water quality?

Answer: No Impact

The purpose of the TMDL is to attain water quality standards in the Santa Clara Lakes; as such, implementation efforts should have a cumulatively positive effect on water quality.

**IX. Hydrology and Water Quality g.** Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Answer: No Impact

It is not reasonably foreseeable that any new housing will be developed as a means of implementing the TMDL.

**IX. Hydrology and Water Quality h.** Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Answer: No Impact

It is not reasonably foreseeable that implementation of the TMDL will impede or redirect flood flows.

**IX. Hydrology and Water Quality i.** Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Answer: No Impact

Reasonably foreseeable implementation strategies should be developed to improve water quality and should not expose people or structures to a significant risk of loss, injury or death involving flooding.

**IX. Hydrology and Water Quality j.** Would the project inundation by seiche, tsunami, or mudflow?

Answer: No Impact

Reasonably foreseeable implementation strategies should be developed to improve water quality and should not substantially increase the chance of inundation by seiche, tsunami, or mudflow.

**X. Land Use and Planning a.** Would the project physically divide an established community?

Answer: No Impact

The scale of reasonably foreseeable structural implementation options to comply with the TMDL is not large enough to result in division of an established community

**X. Land Use and Planning b.** Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Answer: Potentially Significant Impact

Potential conflicts with land use plans, policies, or regulations are best addressed at the project level. The various entities that might install these devices will need to identify local land use plans as part of a project-level analysis to ensure that projects comply with permitted use regulations.

Land adjacent to Elizabeth Lake and surrounding the other lakes is part of the Angeles National Forest. In addition to any other potential land use plans and policies, the Forest Plan for the Angeles National Forest will need to be considered during evaluation of individual projects.

**X. Land Use and Planning c.** Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

Answer: Potentially Significant Impact

Potential conflicts with conservation plans are best addressed at the project level. The various entities that might install these devices will need to identify local conservation plans as part of a project-level analysis to ensure that projects comply with permitted use regulations and are consistent any applicable habitat conservation plan or natural community conservation plan.

Land adjacent to Elizabeth Lake in surrounding the other lakes is part of the Angeles National Forest. In addition to any other potential local conservation and land use plans and policies, the Forest Plan for the Angeles National Forest will need to be considered during evaluation of individual projects.

**XI. Mineral Resources a.** Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Answer: No Impact

Foreseeable implementation options should not result in the loss of availability of a known mineral resource. Consultation with the U.S. Forest Service concluded that they do not currently monitor any mines in the Santa Clara Lakes sub-watershed. A geographical search utilizing the Bureau of Land Management's GeoCommunicator Tool did not indicate the presence of any known valuable mineral resources in the region.

**XI. Mineral Resources b.** Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Answer: No Impact

Loss of availability of a mineral resource recovery site is not anticipated as a result of TMDL implementation. Consultation with the U.S. Forest Service concluded that they do not currently monitor any mines in the Santa Clara Lakes sub-watershed. A geographical search utilizing the Bureau of Land Management's GeoCommunicator Tool did not indicate the presence of any known valuable mineral resources in the region.

**XII. Noise a.** Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Answer: Potentially Significant Impact

Potential conflicts with local general plans or noise ordinances are best addressed at the project level. Since the Regional Water Board cannot specify the manner of compliance with the TMDL, the various entities that might install these devices will need to identify local plans as part of a project-level analysis to ensure that projects are consistent any applicable local general plan, noise ordinance, or applicable standards of other agencies.

**XII. Noise b.** Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Answer: Potentially Significant Impact

Groundborne vibration and/or groundborne noise levels, if any, resulting from implementation of the TMDL should be temporary. These potential impacts and mitigation measures are discussed in XII. Noise d.

**XII. Noise c.** Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Answer: No Impact

The reasonably foreseeable implementation alternatives are not expected to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project:

**XII. Noise d.** Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Answer: Potentially Significant Impact

#### Dredging

There will be noise associated with a dredging operation. It is expected that the noise levels will be greater than ambient noise. The increased noise will be temporary and can be mitigated. Noise mitigation measures should be implemented and may include the selection of quieter running

equipment and/or providing supplemental noise shielding around engines and pumps. Mitigation measures should be carefully considered and implemented if sensitive receptors such as educational or health care facilities are in the project area. Likewise, local or county noise ordinances should be reviewed to ensure compliance prior the initiation of the project.

#### Maintain Lake Level

It is not expected that supplemental water additions to maintain the lake level will result in an increase to the existing noise levels. If construction activities take place for the installation of additional pipes etc., it is anticipated that activities would occur in limited, discrete, and discontinuous areas over a short duration. No major construction activities are anticipated. Noise from any small construction areas could be mitigated by selecting equipment that runs quieter and appropriately scheduling construction activities.

#### Runoff BMPs

Increases in ambient noise levels from construction activities are expected to be less than significant once mitigation measures have been properly applied. It is anticipated that construction activities would occur in limited, discrete, and discontinuous areas over a short duration.

An operations plan for the specific construction and/or maintenance activities could be developed to address the variety of available measures to limit the impacts from noise to adjacent homes and businesses. To minimize noise and vibration impacts at nearby sensitive sites, installation activities should be conducted during daytime hours to the extent feasible. There are a number of measures that can be taken to reduce intrusion without placing unreasonable constraints on the installation process or substantially increasing costs. These include noise and vibration monitoring to ensure that contractors take all reasonable steps to minimize impacts when near sensitive areas; noise testing and inspections of equipment to ensure that all equipment on the site is in good condition and effectively muffled; and an active community liaison program. A community liaison program should keep residents informed about installation plans so they can plan around noise or vibration impacts; it should also provide a conduit for residents to express any concerns or complaints.

The following measures would minimize noise and vibration disturbances at sensitive areas during installation:

- Use newer equipment with improved noise muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational. Newer equipment will generally be quieter in operation than older equipment. All installation equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding).
- Perform all construction in a manner to minimize noise and vibration. Use construction methods or equipment that will provide the lowest level of noise and ground vibration impact near residences and consider alternative methods that are also suitable for the soil condition. The contractor should select installation processes and techniques that create the lowest noise levels.
- Perform noise and vibration monitoring to demonstrate compliance with the noise limits. Independent monitoring should be performed to check compliance in particularly sensitive areas. Require contractors to modify and/or reschedule their installation



activities if monitoring determines that maximum limits are exceeded at residential land uses.

- Conduct truck loading, unloading and hauling operations so that noise and vibration are kept to a minimum by carefully selecting routes to avoid going through residential neighborhoods to the greatest possible extent. Ingress and egress to and from the staging area should be on collector streets or higher street designations (preferred).
- Turn off idling equipment.
- Temporary noise barriers should be used and relocated, as practicable, to protect sensitive receptors against excessive noise from installation activities. Implementing parties should consider mitigation measures such as partial enclosures around continuously operating equipment or temporary barriers along installation boundaries.
- The contractor should be required by contract specification to comply with all local noise and vibration ordinances and obtain all necessary permits and variances.

#### Upgrades to Lake Hughes Community WWTF

Upgrades to the Lake Hughes Community WWTF could result in temporary increases in existing noise levels, but this would be short term and only exist until construction is completed. The operation of the upgraded facility could increase noise levels in areas surrounding the facility. See the Runoff BMP section earlier in this section for potential mitigation measures.

#### Septic System Upgrades

Construction during installation of septic system upgrades could result in a temporary increase in noise levels. See the Runoff BMP section earlier in this section for an analysis of the potential for construction related noise and potential mitigation measures.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**XII. Noise e.** Would the project result in for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Answer: No Impact

There are no airports located within the Santa Clara Lakes sub-watershed. Therefore, it is not foreseeable that implementation of the TMDL would result in alterations to ambient airport-related noise levels.

**XII. Noise f.** Would the project result in for a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Answer: No Impact

There are no private airstrips located within the Santa Clara Lakes sub-watershed. Therefore, it is not foreseeable that implementation of the TMDL would result in alterations to ambient airstrip-related noise levels.

**XIII. Population and Housing a.** Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Answer: No Impact

It is not foreseeable that implementation of the TMDL would induce substantial population growth either directly or indirectly.

**XIII. Population and Housing b.** Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Answer: No Impact

It is not foreseeable that implementation of the TMDL would displace existing housing.

**XIII. Population and Housing c.** Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Answer: No Impact

It is not foreseeable that implementation of the TMDL would displace people.

**XIV. Public Services a.** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Answer: No Impact

None of the reasonably foreseeable implementation measures would require the provision of or need for new or physically altered governmental facilities.

**XV. Recreation 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?

Answer: Less than Significant Impact

It is foreseeable that restoring beneficial uses of the Santa Clara Lakes through implementation of the TMDL may increase recreational usage of the lakes. For example, increased opportunities for

fishing, birding and aesthetic enjoyment may be available. It is not expected that this increased use would result in a substantial deterioration of the lakes.

**XV. Recreation 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?

Answer: Potentially Significant Impact

The TMDL implementation options listed below would act directly on the lakes and have the potential to improve the quality of existing recreation opportunities in and around the Santa Clara Lakes. These implementation options would not result in the need for further construction or expansion of recreational facilities.

**XVI. Transportation/Traffic a.** Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Answer: Potentially Significant Impact

Potential conflicts with local plans, policies or ordinances establishing measures of effectiveness for the performance of the circulation system are best addressed at the project level. The various entities that might implement the TMDL will need to identify local policies as part of a project-level analysis to ensure that projects comply with effectiveness measures.

The foreseeable methods of TMDL implementation may entail short-term disturbances to transportation/traffic during implementation of lake management actions or construction of runoff BMPs. The Santa Clara Lakes sub-watershed is a rural area accessible via one major road. Dredging will require the use of trucks to transport the dredged material from the lakes to a disposal site. There may also be increased truck trips during construction of runoff BMPs. This will create temporary traffic impacts on Lake Elizabeth Road and other local roads and highways. Potential impacts could be reduced by limiting or restricting hours of construction so as to avoid peak traffic times and by providing temporary traffic signals and flagging to facilitate traffic movement. The increased traffic may also create wear and tear on local roads. Responsible entities will need to work with the County of Los Angeles Department of Public Works to repair any road damage caused by implementing the TMDL.

It is not foreseeable that TMDL implementation will conflict with an applicable plan, ordinance or policy for the performance of the circulation system in the long term. Once completed, implementation projects would not result in lasting impacts on nearby intersections, streets, highways, freeways, pedestrian or bicycle paths, or mass transit.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement

mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**XVI. Transportation/Traffic b.** Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Answer: Potentially Significant Impact

Potential conflicts with an applicable congestion management program are best addressed at the project level. The various entities that might implement the TMDL will need to conform to the County of Los Angeles Congestion Management Program, including a Transportation Impact Analysis required by the Land Use Analysis Program.

See also XVI. Transportation/Traffic a.

**XVI. Transportation/Traffic c.** Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Answer: No Impact

Implementation of the TMDL is not anticipated to have any impact on air traffic patterns. Foreseeable implementation options would not be tall enough to have an effect on the flight of an airplane, nor should they include the addition of lighting that would increase navigation risk for airplanes.

**XVI. Transportation/Traffic d.** Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Answer: No Impact

The following implementation options would take place in the lakes themselves; therefore, they would not substantially increase traffic hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment):

- Dredging
- Aeration system
- Maintain lake level
- Floating hydroponic nesting islands

#### Runoff BMPs

Runoff BMPs are not expected to increase traffic hazards due to a design feature or incompatible uses in the Santa Clara Lakes sub-watershed.

#### Upgrades to the Lake Hughes Community WWTF

Upgrades to the Lake Hughes Community WWTF will occur on land where the treatment plant is currently located. It is not reasonably foreseeable that upgrades to the Lake Hughes Community

WWTF will increase traffic hazards due to a design feature or incompatible uses in the Santa Clara Lakes sub-watershed.

Septic System Upgrades

Septic system upgrades will occur on private land where septic systems are already located. It is not reasonably foreseeable that septic system upgrades will increase traffic hazards due to a design feature or incompatible uses in the Santa Clara Lakes sub-watershed.

**XVI. Transportation/Traffic e.** Would the project result in inadequate emergency access?

Answer: Potentially Significant Impact

See VIII. Hazards and Hazardous Materials g.

**XVI. Transportation/Traffic f.** Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Answer: Potentially Significant Impact

See XVI. Transportation/Traffic a. and XVI. Transportation/Traffic b.

**XVII. Utilities and Service Systems a.** Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Answer: Less than Significant Impact

The purpose of the TMDL is to improve water quality; consequently, implementation efforts to achieve the TMDL should have a positive impact on water quality. Reasonably foreseeable implementation measures would meet all wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board because any compliance measure involving a treatment facility would be permitted by the Regional Water Board.

No changes to volumes of wastewater generated in the Santa Clara Lakes sub-watershed are reasonably foreseeable due to implementation of the TMDL. Upgrades to the Lake Hughes Community WWTF and/or septic systems would have a positive impact on water quality as the result of improved wastewater treatment capabilities.

**XVII. Utilities and Service Systems b.** Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Answer: Potentially Significant Impact

No changes to volumes of wastewater generated in the Santa Clara Lakes sub-watershed are reasonably foreseeable due to implementation of the TMDL. Upgrades to the Lake Hughes Community WWTF and/or septic systems are two of the reasonably foreseeable implementation options for the TMDL. These upgrades would have a positive impact on water quality as the result of improved wastewater treatment capabilities. Environmental effects of these upgrades to wastewater treatment facilities are analyzed throughout this document.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**XVII. Utilities and Service Systems c.** Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Answer: Potentially Significant Impact

The following implementation options would have minimal or no ongoing interaction with the stormwater drainage system:

- Dredging
- Aeration system
- Maintain lake levels
- Floating hydroponic nesting islands
- Upgrades to Lake Hughes Community WWTF
- Septic system upgrades

#### Runoff BMPs

Implementation of runoff BMPs to address discharges from storm drains is a reasonably foreseeable implementation option for the TMDL. Vegetated swales, filter strips, bioretention, infiltration trenches or other structural BMPs could result in alterations to stormwater drainage utilities. These types of devices may result in a potentially significant impact due to changes in drainage patterns or flooding hazards if devices became blocked by trash and debris. Any device installed in a storm drain, especially an older, under-capacity drain could have a negative effect on the drain's ability to convey runoff. These negative impacts can be mitigated by performing regular maintenance of these devices, through design of devices with overflow/bypass structures, and, if necessary, enlargement of the storm drain upstream of devices. Stormwater infiltration BMPs would have a positive impact on water quality as the result of improved stormwater treatment capabilities. Environmental effects of these upgrades to wastewater treatment facilities are analyzed throughout this document.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**XVII. Utilities and Service Systems d.** Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Answer: Potentially Significant Impact

The TMDL implementation options listed below are not expected to require new or substantial alterations to the water supply system:

- Dredging
- Aeration system
- Floating hydroponic nesting islands
- Upgrades to Lake Hughes Community WWTF
- Septic system upgrades

Maintain Lake Levels

Maintaining the lake levels with supplemental water will require a water source. The source does not necessarily need to be a public water utility as non-potable water, such as that resulting from stormwater capture and reuse, could be used for this purpose. Currently water may be added to Munz lake on an irregular basis; however, the source of water used addition to the lake is uncertain (Tetra Tech, 2015). If this water source is to be used regularly, responsible parties should fully analyze the potential impact on the water supply system.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**XVII. Utilities and Service Systems e.** Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Answer: Potentially Significant Impact

See XVII. Utilities and Service Systems b.

Should connection to an existing wastewater treatment plant be necessary, consultation with the local treatment plant will determine if capacity is adequate. If capacity is not adequate, the implementing parties will need to develop an alternate plan for treatment of their wastewater.

**XVII. Utilities and Service Systems f.** Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Answer: Potentially Significant Impact

The following implementation options are not expected to require new or substantial alterations to the solid waste disposal as the listed lake management alternatives are not anticipated to generate significant amounts of solid wastes.

- Aeration system
- Maintain lake level
- Floating hydroponic nesting islands

#### Dredging

The purpose of dredging is to remove sediments from the lake bottoms. Dredged material requires disposal. One option for disposal of dredged materials is a landfill site; this could potentially impact solid waste utilities. The project specific planning of a dredging operation will decide the depth to which the lake will be dredged and the potential impact to solid waste disposal will be fully analyzed at that time. This potential project will generate solid waste requiring disposal, but it is not expected to be to the scale that would significantly impact landfill capacity

The Santa Clara Lakes (Lake Hughes, Munz Lakes or Elizabeth Lake) are not listed on the 303(d) list of impaired water bodies for toxic substances in the sediment. Implementing parties will need to conduct analyses to confirm that toxic compounds are not present in the sediment prior to disposing of dredged material. If analytical data which characterizes the lake sediment demonstrates that chemicals of concern are below total threshold limit concentration (TTLC) and soluble threshold limit concentration (STLC) guidelines for hazardous waste and sediment, dredged material from the Santa Clara Lakes could potentially be accepted at a class III landfill. There are several class III landfills in the Los Angeles area. A survey of solid waste disposal facilities within Los Angeles County conducted by the Los Angeles County Department of Public Works estimated remaining permitted landfill capacity at 129.19 million tons as of May 2013 (Los Angeles County, 2013).

Stormwater Infiltration, Upgrades to Lake Hughes Community WWTF, Septic System Upgrades  
Nominal amounts of construction debris may be generated by installation of structural BMPs. Construction debris can be recycled at aggregate recycling centers or disposed of in landfills. Improved sorting and recycling methods can reduce the total amount of disposable wastes. Existing landfills in the area should have adequate capacity to accommodate this limited amount of construction debris. It is not foreseeable that this proposal will result in a need for new systems, or substantial alterations to solid waste and disposal utilities.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).



**XVII. Utilities and Service Systems g.** Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Answer: Potentially Significant Impact

The implementation of the TMDL is expected to comply with federal, state, and local statutes and regulations related to solid waste. As discussed in XVII. Utilities and Services f., implementation of the TMDL has the potential to generate solid waste. Since, the Regional Water Board cannot specify the manner of compliance with the TMDL, these potential impacts are best addressed at the project level. The various entities that might generate the solid waste will need to identify any statutes and regulations related to solid waste as part of a project-level analysis to ensure that projects comply with such plans.

**XVIII. Mandatory Findings of Significance a.** Does the project have the potential to 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?

Answer: Potentially Significant Impact

The potential impacts of the project should not cause a significant degradation to the environment with appropriate implementation of available mitigation measures. The implementation of this TMDL may cause temporary impacts to fish and wildlife, but will result in improved water quality in the waters of the region and will have significant beneficial impacts to the environment over the long term.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**XVIII. Mandatory Findings of Significance 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)?

Answer: Potentially Significant Impact

Each compliance measure is expected to have nominal environmental impacts if performed properly. Mitigation measures are available for most of these impacts. It is not expected that implementation of the TMDL will cause cumulatively considerable negative impacts if available mitigation measures are properly implemented. The implementation of this TMDL will result in improved water quality in the waters of the region and will have significant beneficial impacts to the environment over the long term.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

**XVIII. Mandatory Findings of Significance c.** Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Answer: Potentially Significant Impact

Without implementation of recommended mitigation measures, potentially significant environmental impacts, such as impacts to air, noise, and transportation, can result from implementation projects. In some cases, mitigation measures, even if performed, may not reduce the impacts to less than significant levels. The significance of these impacts is discussed in detail above, as well as elsewhere in this document. The project will not cause substantial adverse effects on human beings. The implementation of this TMDL will result in improved water quality in the waters of the region and will have significant beneficial impacts to the environment over the long term.

This SED impact analysis concludes that there are potentially significant impacts from implementation of the TMDL, but notes that there are mitigation measures available to reduce potentially significant environmental impacts to less than significant levels. However, implementation of these mitigation measures are within the responsibility and jurisdiction of the responsible agencies listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These agencies have the ability to implement these mitigation measures, can and should implement these mitigation measures, and are required under CEQA to implement mitigation measures unless mitigation measures are deemed infeasible through specific considerations (Title 14, California Code of Regulations, Section 15091(a)(3)).

## **7. Other Environmental Considerations**

This section evaluates several other environmental considerations of reasonably foreseeable methods of complying with the TMDL, specifically:

7.1. Cumulative Impacts of the Program Alternatives (as required by CEQA Guidelines Section 15130);

7.2. Potential Growth-Inducing Effects of the Program Alternatives (as required by CEQA Guidelines Section 15126); and

7.3. Unavoidable Significant Impacts (as required by CEQA Guidelines Section 15126.2).

### **7.1 Cumulative Impacts**

Cumulative impacts, defined in Section 15355 of the CEQA Guidelines, refer to two or more individual effects, that when considered together, are considerable or that increase other environmental impacts. Cumulative impact assessment must consider not only the impacts of the

proposed TMDL, but also the impacts from other municipal and private projects, which would occur in the watershed during the period of implementation.

The areas of cumulative impacts analyzed in this section include: 1) the program level cumulative impacts and 2) the project level cumulative impacts. On the program level, the impacts from multiple TMDLs, if they exist, are analyzed. On the project level, while the full environmental analysis of individual projects are the purview of the responsible parties, the cumulative impact analysis included here entails consideration of construction activities occurring in the vicinity of one another as a result of other projects being built in the same general time frame and location. The TMDL projects, if occurring with other construction projects, could contribute to temporary cumulative noise and vibration effects that would not occur with only one project.

### **7.1.1 Program Cumulative Impacts**

Compliance with the Santa Clara Lakes TMDL, will include runoff BMPs such as vegetated swales and filter strips, which also reduce pollutant loading of other pollutants not just nitrogen. In addition, lake management alternative such as dredging may remove other pollutants residing in the sediment. Thus these implementation alternatives will potentially contribute to the implementation of other TMDLs in the future and reduce overall pollutant loading to the lake.

Currently there is one other TMDL in effect for the Santa Clara Lakes- the Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL. Three other TMDLs in effect for the Santa Clara River- the Upper Santa Clara River Chloride TMDL, the Santa Clara River Bacteria TMDL, and the Santa Clara River TMDL. Based on the 303(d) list, TMDLs for metals and toxic pollutants are likely to be developed in the future for the Santa Clara River. When other TMDLs are developed in the future, the programmatic cumulative impacts will be analyzed in the SED documents for those TMDLs. None of the implementation approaches for other TMDLs should disrupt implementation alternatives as applied for TMDL.

### **7.1.2 Project Cumulative Impacts**

Specific TMDL projects must be environmentally evaluated and cumulative impacts considered as the responsible parties design and site the projects. However, as examples, TMDL projects and other construction activities may result in cumulative effects of the following nature:

Noise and Vibration - Local residents in the near vicinity of installation and maintenance activities may be exposed to noise and possible vibration. The cumulative effects, both in terms of added noise and vibration at multiple TMDL installation sites, and in the context of other related projects, are not considered cumulatively significant due to the temporary nature of noise increases. Noise mitigation methods including scheduling of construction or implementation device installation are available as discussed in the checklist. In addition, the fact that implementation BMP installation activities are being conducted in the same vicinity as other projects will not make mitigation methods less implementable.

Air Quality - Implementation of the TMDL Program may cause additional emissions of criteria pollutants and slightly elevated levels of carbon monoxide during construction or BMP device installation activities. The TMDL, in conjunction with all other construction activity, may contribute to the region's non-attainment status during the installation period. Because these installations-related emissions are temporary, and because the AVAQMD addresses cumulative air pollution, compliance with the TMDL would not result in long-term significant cumulative air quality impacts. In the short term, cumulative impacts could be significant if the combined emissions from the individual TMDL projects exceed the threshold criteria for the individual pollutants.

Transportation and Circulation - Compliance with the TMDL involves installation activities occurring simultaneously at a number of surface sites in this TMDL area. Installation of BMP devices may be occurring in the same general time and space as other related or unrelated projects. In these instances, surface construction activities from all projects could produce cumulative traffic effects which may be significant, depending upon a range of factors including the specific location involved and the precise nature of the conditions created by the dual construction activity. Special coordination efforts may be necessary to reduce the combined effects to an acceptable level. Overall, significant cumulative impacts are not anticipated because coordination can occur and because transportation mitigation methods are available as discussed in the checklist. In addition, the fact that BMP device installation activities are being conducted in the same vicinity as other projects will not make mitigation methods less implementable.

Aesthetics - Construction activities associated with other related projects may be ongoing in the vicinity of one or more TMDL construction sites. To the extent that combined construction activities do occur, there would be temporary adverse visual effects of less than cumulatively significant proportions as discussed in the checklist.

## **7.2 Growth-Inducing Impacts**

This section presents the following:

- 7.2.1. An overview of the CEQA Guidelines relevant to evaluating growth inducement,
- 7.2.2. A discussion of the types of growth that can occur in the Santa Clara Lakes,
- 7.2.3. A discussion of obstacles to growth in the watershed, and
- 7.2.4. An evaluation of the potential for the TMDL Program Alternatives to induce growth.

### **7.2.1 CEQA Growth-Inducing Guidelines**

Growth-inducing impacts are defined by the State CEQA Guidelines as (CEQA Guidelines, Section 15126.2(d)):

The ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are impacts which would remove obstacles to population growth. Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects... [In addition,] the characteristics of some projects... may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It is not assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Growth inducement indirectly could result in adverse environmental effects if the induced growth is not consistent with or accommodated by the land use plans and growth management plans and policies. Local land use plans provide for land use development patterns and growth policies that encourage orderly urban development supported by adequate public services, such as water supply, roadway infrastructure, sewer services, and solid waste disposal services.

Public works projects that are developed to address future unplanned needs (i.e., that would not accommodate planned growth) could result in removing obstacles to population growth. Direct

growth inducement would result if, for example, a project involved the construction of new wastewater treatment facilities to accommodate populations in excess of those projected by local or regional planning agencies. Indirect growth inducement would result if a project accommodated unplanned growth and indirectly established substantial new permanent employment opportunities (for example, new commercial, industrial, or governmental enterprises) or if a project involved a construction effort with substantial short-term employment opportunities that indirectly would stimulate the need for additional housing and services. Growth inducement also could occur if the project would affect the timing or location of either population or land use growth, or create a surplus in infrastructure capacity.

### **7.2.2 Types of Growth**

The primary types of growth that occur within the TMDL area are:

- 1) Development of land, and
- 2) Population growth (Economic growth, such as the creation of additional job opportunities, also could occur; however, such growth generally would lead to population growth and, therefore, is included indirectly in population growth.)

#### Growth in land development

Growth in land development is the physical development of residential, commercial, and industrial structures in the TMDL area. Land use growth is subject to general plans, community plans, parcel zoning, and applicable entitlements and is dependent on adequate infrastructure to support development.

#### Population Growth

Population growth is growth in the number of persons that live and work in the TMDL area and other jurisdictions within the boundaries of the area. Population growth occurs from natural causes (births minus deaths) and net emigration to or immigration from other geographical areas. Emigration or immigration can occur in response to economic opportunities, life style choices, or for personal reasons.

Although land use growth and population growth are interrelated, land use and population growth could occur independently from each other. This has occurred in the past where the housing growth is minimal, but population within the area continues to increase. Such a situation results in increasing population densities with a corresponding demand for services, despite minimal land use growth.

Overall development in the County of Los Angeles is governed by their General Plan, which is intended to direct land use development in an orderly manner. The General Plan is the framework under which development occurs, and, within this framework, other land use entitlements (such as variances and conditional use permits) can be obtained. Because the General Plan guides land use development and allows for entitlements, it does not represent an obstacle to land use growth. The cities within the TMDL area also have plans which direct land use development.

### **7.2.3 Existing Obstacles to Growth**

Obstacles to growth could include such things as inadequate infrastructure, such as an inadequate water supply that results in rationing, or inadequate wastewater treatment capacity that results in restrictions in land use development. Policies that discourage either natural population growth or immigration also are considered to be obstacles to growth.

#### **7.2.4 Potential for Compliance with the Proposed TMDL to Induce Growth.**

##### Direct Growth Inducement

Because the reasonably foreseeable methods of compliance with the proposed TMDL focus on lake management strategies, runoff BMPs, and treatment upgrades at existing facilities, this TMDL would not result in the construction of new housing and, therefore, would not directly induce growth.

##### Indirect Growth Inducement

Two areas of potential indirect growth inducement are relevant to a discussion of the proposed TMDL: (1) the potential for compliance with the TMDL to generate economic opportunities that could lead to additional immigration, and (2) the potential for the proposed TMDL to remove an obstacle to land use or population growth.

The minor construction activities associated with the TMDL would not increase the economic opportunities in the area and region, and is not expected to result in or induce substantial or significant population or land use development growth.

The second area of potential indirect growth inducement is through the removal of obstacles to growth. As discussed above, no obstacles exist to land use or to population growth in the watershed.

### **7.3 Unavoidable Significant Adverse Impacts**

Section 15126.2(c) of the CEQA Guidelines requires a discussion of potential significant, irreversible environmental changes that could result from a proposed project. Examples of such changes include commitment of future generations to similar uses, irreversible damage that may result from accidents associated with a project, or irretrievable commitments of resources. Although the proposed TMDL would require resources (materials, labor, and energy) they do not represent a substantial irreversible commitment of resources.

Furthermore, implementation of the TMDL is both necessary and beneficial. To the extent that the alternatives, mitigation measures, or both, that are examined in this SED are not deemed feasible by the responsible parties complying with the TMDL, the necessity of implementing the federally required TMDL and removing the significant environmental effects from nutrient-related impairments in the Santa Clara Lakes (an action required to achieve the express, national policy of the Clean Water Act) remains. In addition, implementation of the TMDL will have substantial benefits to water quality and will enhance beneficial uses. Enhancement of the recreational beneficial uses (both water contact recreation and non-contact water recreation) will have positive social and economic effects by decreasing nutrient-related pollution in the Santa Clara Lakes.

## **8. Statement of Overriding Considerations**

The Regional Water Board staff has balanced the economic, legal, social, technological, and other benefits of this proposed TMDL against the unavoidable environmental risks in determining whether to recommend that the Regional Water Board approves this project. Upon review of the environmental information generated for this project and in view of the entire record supporting the TMDL, staff has determined that the specific economic, legal, social, technological, and other benefits of this proposed TMDL outweigh the unavoidable adverse environmental effects, and that such adverse environmental effects are acceptable under the circumstances.

The implementation of this Basin Plan amendment will result in improved water quality in the waters of the Region and will have significant positive impacts to the environment (including restoration and enhancement of beneficial uses) and the economy over the long term. Enhancement of the recreational beneficial uses (both water contact recreation and non-contact water recreation) will have positive social and economic effects by decreasing potential hazards and increasing the aesthetic experience at the waterbodies of concern. Specific projects employed to implement the Basin Plan amendment may have adverse significant impacts to the environment, but these impacts are generally expected to be limited, short-term or may be mitigated through design and scheduling.

The Staff Report, Basin Plan amendment, and this SED provide the necessary information pursuant to Public Resources Code section 21159 to conclude that properly designed and implemented BMPs and properly executed remediation activities generally should not foreseeably have a significant adverse effect on the environment. Any potential impacts can be mitigated at the subsequent project level when specific sites and methods have been identified, and responsible parties can and should implement the recommended mitigation measures.

For this TMDL, mitigation measures are available to reduce environmental impacts to less than significant levels and in most cases are routine measures that are typically used in construction projects, infrastructure maintenance and lake management. Routine construction and maintenance of power lines and storm sewer systems are regular and expected activities carried out by municipalities and county agencies throughout Los Angeles County. Sewer and power line maintenance, traffic alterations, and environmental impacts from them already occur and are expected. This project will foreseeably require these types of projects and their individual impacts are not expected to be extraordinary in the magnitude or severity of impacts. In addition to runoff BMPs and wastewater treatment upgrade projects, the TMDL may require projects typical of lake management activities, such as dredging and aeration to improve water quality. For these activities, there are mitigation measures available to reduce environmental impacts, and these measures are routine and already carried within Los Angeles County. Mitigation measures including but not limited to deployment of optimally-sized aerators, dust suppression and covering dredge piles, and adhering to Material Safety Data Sheet instructions when handling chemicals may reduce environmental impacts to less than significant levels.

Specific projects to comply with this TMDL that may have a significant impact will be implemented by responsible parties and would therefore be subject to a separate environmental review. The lead agency for the TMDL Implementation projects have the ability to mitigate project impacts, can and should mitigate project impacts, and are required under CEQA to mitigate any environmental impacts they identify, unless they have reason not to do so. Notably, in almost all circumstances, where unavoidable or immitigable impacts would present unacceptable hardship upon nearby receptors or venues, the local agencies have a variety of alternative implementation measures available instead. Cumulatively, the

many, small individual projects may have a significant effect upon life and the environment throughout the region.

This TMDL is required by law under section 303(d) of the federal Clean Water Act (CWA) and, if this Regional Water Board does not establish this TMDL, the U.S. EPA will be required to develop a TMDL. The CWA requires states to establish a priority ranking for waters on the 303(d) list of impaired waters and to develop and implement TMDLs for these waters (40 CFR §130.7). The impacts associated with U.S. EPA's establishment of the TMDL would be significantly more severe, as discussed herein, because U.S. EPA will not provide a compliance schedule and the final waste load allocations, pursuant to federal regulations, would need to be complied with upon incorporation into the relevant permits. (40 CFR 122.44(d)(1)(vii)(B).) Since compliance would not be authorized over a period of years, all of the impacts associated with complying would be truncated into a short time frame, thus exacerbating the magnitude of the cumulative effect of performing all projects relatively simultaneously throughout the region.

The implementation of this TMDL will result in improved water quality in the Santa Clara Lakes, but it may result in short-term localized significant adverse impacts to the environment as a variety of small construction projects may be undertaken in the vicinity of the waterbodies of concern. Individually, these impacts are generally expected to be limited, short-term or may be mitigated through careful design and scheduling. The Staff Report for the Santa Clara Lakes TMDL and this checklist provide the necessary information pursuant to Public Resources Code section 21159 to conclude that properly designed and implemented structural or non-structural BMPs should mitigate and generally avoid significant adverse effects on the environment, and all parties responsible for implementing the TMDL should ensure that their projects are properly designed and implemented.

All of the potential impacts must, however, be mitigated at the subsequent, project level because they involve specific sites and designs not specified or specifically required by the Basin Plan amendment to implement the TMDL. At this stage, any more particularized conclusions would be speculative. The Regional Water Board does not have legal authority to specify the manner of compliance with its WDRs or other orders (California Water Code section § 13360), and thus cannot dictate that an appropriate location be selected for any particular project, that it be designed consistent with standard industry practices, or that routine and ordinary mitigation measures be employed. These measures are all within the jurisdiction and authority of the parties that will be responsible for implementing this TMDL, and those parties can and should employ those alternatives and mitigation measures to reduce any impacts as much as feasible. (Title 14, California Code of Regulations, Section 15091(a)(2).)

Implementation of the TMDL is both necessary and beneficial. To the extent that the alternatives, mitigation measures, or both, that are examined in this analysis are not deemed feasible by responsible parties, the necessity of implementing the federally required TMDL and removing the nutrients impairments from the Santa Clara Lakes (an action required to achieve the express, national policy of the Clean Water Act) remains.



## 9. Determination

- The proposed project **COULD NOT** have a significant effect on the environment, and, therefore, no alternatives or mitigation measures are proposed.
- The proposed project **MAY** have a significant or potentially significant effect on the environment, and therefore alternatives and mitigation measures have been evaluated.

_____	_____
Signature	Date
_____	_____
Printed Name	For

**Note:** Authority cited: Sections 21083 and 21087, Public Resources Code. Reference: Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151, Public Resources Code; Sundstrom v. County of Mendocino, 202 Cal.App.3d 296 (1988); Leonoff v. Monterey Board of Supervisors, 222 Cal.App.3d 1337 (1990).

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