

Substitute Environmental Document  
for Algae, Eutrophic Conditions, and Nutrients  
Total Maximum Daily Load (TMDL) for the  
Ventura River and its Tributaries

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

California Regional Water Quality Control Board  
Los Angeles Region  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, California 90013

December 6, 2012

## TABLE OF CONTENTS

<b>1. EXECUTIVE SUMMARY</b>	<b>4</b>
<b>2. REGULATORY REQUIREMENTS FOR ENVIRONMENTAL IMPACT ANALYSIS OF THE TMDL</b>	<b>8</b>
2.1 EXEMPTION FROM CERTAIN CEQA REQUIREMENTS	8
2.2 CALIFORNIA CODE OF REGULATIONS AND PUBLIC RESOURCES CODE REQUIREMENTS	8
2.3 PROGRAM AND PROJECT LEVEL ANALYSES	9
2.4 PURPOSE OF CEQA	9
<b>3. TMDL OVERVIEW AND PROGRAM OBJECTIVES</b>	<b>11</b>
3.1 INTRODUCTION – LEGAL BACKGROUND	11
3.2 PROJECT PURPOSE, TMDL GOALS, AND WATER QUALITY OBJECTIVES	12
3.2.1 PROJECT PURPOSE	12
3.2.2 TMDL GOALS	13
3.2.3 WATER QUALITY OBJECTIVES	13
<b>4. DESCRIPTION OF ALTERNATIVES</b>	<b>15</b>
4.1 PROGRAM ALTERNATIVES	15
4.1.1 ALTERNATIVE 1 - REGIONAL BOARD TMDL	15
4.1.2 ALTERNATIVE 2 – USEPA TMDL	16
4.1.3 ALTERNATIVE 3 - A TMDL WITHOUT WLAS AND LAS FOR NITROGEN AND PHOSPHORUS	17
4.1.4 ALTERNATIVE 4 – A TMDL WITH A DIFFERENT IMPLEMENTATION SCHEDULE	17
4.1.5 ALTERNATIVE 5 – NO PROGRAM ALTERNATIVE	18
4.1.4 RECOMMENDED PROGRAM ALTERNATIVE	18
4.2 PROJECT LEVEL ALTERNATIVES	19
<b>5. DESCRIPTION OF IMPLEMENTATION ALTERNATIVES</b>	<b>20</b>
5.1 IMPLEMENTATION ALTERNATIVES FOR THE OJAI VALLEY WWTP	20
Upgrading Nitrification-Denitrification (NDN) Processes at Ojai Valley WWTP	20
5.2 URBAN RUNOFF IMPLEMENTATION ALTERNATIVES	21
5.3 AGRICULTURE IMPLEMENTATION ALTERNATIVES	22
5.4. OWTS INSPECTIONS AND UPGRADES	26
5.5. WATERSHED WIDE IMPLEMENTATION	26
5.6. NON-STRUCTURAL BMPS	27
Public education and outreach	27
Preventing illegal discharges	27
<b>6. SETTING, IMPACTS, AND MITIGATION</b>	<b>28</b>
6.1 INTRODUCTION	28
6.1.1 APPROACH TO ENVIRONMENTAL SETTING AND IMPACT ANALYSIS	28
6.1.2 PROGRAM LEVEL VERSUS PROJECT LEVEL ANALYSIS	28
6.1.3 ENVIRONMENTAL SETTING	29
6.1.4 BENEFICIAL USES OF VENTURA RIVER AND ITS TRIBUTARIES	32

6.2.1 ENVIRONMENTAL CHECKLIST	34
6.2.2 DISCUSSION OF ENVIRONMENTAL EVALUATION	41
<b>7. OTHER ENVIRONMENTAL CONSIDERATIONS</b>	<b>97</b>
7.1 CUMULATIVE IMPACTS	97
7.1.1 PROGRAM CUMULATIVE IMPACTS	97
7.1.2 PROJECT CUMULATIVE IMPACTS	97
7.2 GROWTH-INDUCING IMPACTS	98
7.2.1 CEQA GROWTH-INDUCING GUIDELINES	99
7.2.2 TYPES OF GROWTH	99
7.2.3 EXISTING OBSTACLES TO GROWTH	100
7.2.4 POTENTIAL FOR COMPLIANCE WITH THE PROPOSED TMDL TO INDUCE GROWTH.	100
7.3 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS	101
<b>8. STATEMENT OF OVERRIDING CONSIDERATIONS AND DETERMINATION</b>	<b>102</b>
<b>9. DETERMINATION</b>	<b>104</b>
<b>10. REFERENCES</b>	<b>105</b>

## 1. EXECUTIVE SUMMARY

The California Regional Water Quality Control Board – Los Angeles Region (Regional Board) is the Lead Agency for evaluating the environmental impacts of the proposed Total Maximum Daily Load (TMDL) for Algae, Eutrophic Conditions, and Nutrients in the Ventura River, including the Estuary, and its tributaries (Nutrients TMDL). This Substitute Environmental Document (SED) analyzes environmental impacts that may occur from reasonably foreseeable methods of implementing the Nutrients TMDL. This SED is based on a proposed Nutrients TMDL that will be considered by the Regional Board, and if approved by the Regional Board, implemented through an amendment to the Water Quality Control Plan, Los Angeles Region (Basin Plan). The proposed Nutrients TMDL is described in the Staff Report, Tentative Board Resolution, and Tentative Basin Plan Amendment, which are available on the Regional Board's website. This SED analyzes foreseeable methods of compliance with the Nutrients 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 Board when the Regional Board considers adoption of the Nutrients 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 Board considered the information in the SED, and (3) affirming that the SED reflects independent judgment and analysis by the Regional Board (Section 15090 of CEQA Guidelines (Title 14 of California Code of Regulations)).

Water quality in the Ventura River and its tributaries is impaired by algae, eutrophic conditions, low dissolved oxygen, and nitrogen as documented in the Clean Water Act (CWA) section 303(d) list of impaired waterbodies. The algae and nutrient-related impairments are caused by excessive loading of nutrients, particularly nitrogen and phosphorus, to Ventura River and its tributaries.

A nutrients TMDL for Ventura River, including the Estuary, and its tributaries is required under section 303(d) of the Clean Water Act and mandated by a Consent Decree between Heal the Bay et al. and the United States Environmental Protection Agency (US EPA). This consent decree requires that all TMDLs, as required by the 1998 303(d) list, for the Los Angeles Region be adopted within 13 years, and prescribes schedules for certain TMDLs. For the purpose of scheduling TMDL development, the consent decree combined the more than 700 waterbody-pollutant combinations into 92 TMDL analytical units. Analytical Unit 88 addresses the impairments the Ventura River and its tributaries.

The objective of the Nutrients TMDL is to restore the beneficial uses of the Ventura River and its tributaries in accordance with CWA section 303(d). Beneficial uses for the Ventura River and its tributaries include Municipal and Domestic Supply (MUN), Industrial Service Supply (IND), Industrial Process supply (PROC), Agricultural Supply (AGR), Ground Water Recharge (GWR), Freshwater Replenishment (FRSH), Navigation (NAV), Contact (REC-1) and Non-contact Recreation (REC-2), Commercial and Sport Fishing (COMM), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Estuarine Habitat (EST), Marine Habitat (MAR), Wildlife Habitat (WILD), Rare Threatened or Endangered Species (RARE), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), Shellfish Harvesting (SHELL), Wetland Habitat (WET).

The most sensitive beneficial use in the Ventura River watershed is the cold water aquatic habitat (COLD) use and the associated migratory (MIGR) and spawning and early development (SPWN)

uses. The Ventura River and its tributaries is home to the Southern California Steelhead, which was first recognized as endangered by the NOAA National Marine Fisheries Service (NMFS) in 1997. Its status as endangered was reaffirmed in 2006. According to NMFS, the total population of the Southern California Steelhead has dropped from 32,000-46,000 spawning adults to less than 500 (NOAA, 2012). The Ventura River, Ventura River Estuary, San Antonio Creek, Canada Larga, Matilija Creek and North Fork Matilija Creek among other tributaries have been designated by NMFS as critical habitat for the remaining population of the Southern California Steelhead.

The sources of nutrient loading to the Ventura River and its tributaries include dry-weather runoff and stormwater from developed/urban areas, discharges from the Ojai Valley Wastewater Treatment Plant (WWTP), irrigation and stormwater runoff from agriculture, runoff and riparian impacts from horse and cattle activities, discharges from failing/improperly working septic systems, and background loading from natural/undeveloped areas. The treatment plant contributes the highest nutrient loading in dry-weather (38% of nitrogen load), followed by horses and cattle activities (22%) and urban runoff (21%). In wet-weather, urban stormwater runoff is the largest source of nutrients (42% of nitrogen load), followed by horses and cattle activities (26%) and natural background loading (19%).

The Nutrients TMDL assigns waste load allocations (WLAs) to point sources and load allocations (LAs) to nonpoint sources, and provides a 10-year implementation schedule. WLAs will be implemented through the County of Ventura Municipal Separate Storm Sewer System (MS4) permit, the California Department of Transportation (Caltrans) statewide storm water permit, general industrial storm water permits, general construction storm water permits, and other NPDES permits. 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. Potential adverse impacts to the environment stem principally from upgrades to the Ojai Valley WWTP, stormwater best management practices (BMPs), and nonpoint source BMPs.

This SED analyzes three 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 Board and responsible parties. 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.

CEQA requires the Regional 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 Board

is prohibited from specifying the manner of compliance with its regulations (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 responsible parties 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 responsible parties. The project level components will be subject to additional environmental review, including review by responsible parties implementing TMDL projects.

Many of the specific projects and BMPs analyzed in this SED will involve small infrastructure maintenance and construction projects. Infrastructure maintenance and construction projects generate varying degrees of environmental impacts. The potential impacts can include, for example, noise associated with construction, air emissions associated with vehicles to deliver materials during construction, traffic associated with increased vehicle trips and where construction or attendant activities occur near or in thoroughfares. These foreseeable impacts are analyzed in detail in Section 6 of this SED.

To address the environmental impacts from routine and essential activities, responsible parties can employ a variety of techniques, BMPs, and other mitigation measures to minimize potential impacts on the environment. Mitigation measures for construction projects for maintenance projects include varying construction activities for certain times of the day to reduce the duration of traffic and noise impacts, developing detailed traffic plans in coordination with police or fire protection authorities, using less noisy equipment, using sound barriers, and using lower emission vehicles to reduce air pollutant emissions.

Many of the mitigation measures identified in the SED are common practices currently employed by agencies when planning and implementing storm water BMPs. Agencies such as the California Stormwater Quality Association (CASQA), and the Water Environment Research Foundation (WERF) publish handbooks containing guidance on the selection, siting, design, installation, monitoring, and evaluation of stormwater BMPs (CASQA, 2003a, CASQA, 2003b, WERF, 2005). Manuals are also available, which describe engineering and administration policies and procedures for construction projects. These mitigation methods and BMPs 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 the individual responsible party. It is the obligation of 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).)

This SED finds foreseeable methods to comply with the Nutrients TMDL to include both non-structural and structural BMPs and treatment systems in the Ventura River and its tributaries. Some of these alternatives may cause significant adverse impacts. These impacts can be mitigated through commonly used construction and maintenance practices. The SED identifies mitigation methods for impacts with potentially significant effects and finds that these methods can mitigate potentially significant impacts to levels that are less than significant. To the extent that there are significant adverse effects on the environment due to the implementation of this TMDL, there are feasible alternatives and/or feasible mitigation measures that would substantially lessen significant adverse impacts. The SED can be used by responsible parties to

expedite any additional environmental analysis of specific projects required to comply with the TMDL. The Regional Board cannot prescribe the exact means of compliance or the use of mitigation measures, when feasible. 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.

The regulatory requirements and the program objectives for the Nutrients TMDL are provided in Section 2 and Section 3, respectively. Section 4 discusses the program level alternatives for this TMDL and presents implementation alternatives to achieve compliance with the final waste load and load allocations. Section 5 provides a detailed description of implementation alternatives. Section 6 discusses environmental setting, impacts, and mitigation (Section 6.1), and the CEQA Checklist and Determination with in-depth analysis of each alternative (Section 6.2). Other environmental considerations are discussed in Section 7. The Statement of Overriding Considerations and Determination is discussed in Section 8. The CEQA findings are included in Section 9. A list of references is included in Section 10 of this SED.

## **2. REGULATORY REQUIREMENTS FOR ENVIRONMENTAL IMPACT ANALYSIS OF THE TMDL**

This section presents the regulatory requirements for assessing environmental impacts of a TMDL implemented through a Basin Plan amendment at the Regional Board. This TMDL for algae, eutrophic conditions, and nutrients in the Ventura River and its tributaries 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 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 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 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 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 Board is prohibited from specifying the manner of compliance with its regulations (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 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 Board staff has performed a good faith effort at full disclosure of the reasonably foreseeable environmental impacts that could be attendant with the proposed Nutrients TMDL.

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

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

The Nutrients TMDL sets forth an implementation plan to attain the water quality objectives for Biostimulatory Substances in these waterbodies. The TMDL was prepared pursuant to state and federal requirements to preserve and enhance water quality in the Ventura River, including the Estuary, and its tributaries. The adoption of a TMDL is not discretionary and is compelled both by section 303(d) of the federal Clean Water Act (33 USC 1313(d)) and by a federal consent decree, *Heal the Bay Inc., et al. v. Browner, et al.* C 98-4825 SBA (United States District Court, Northern District of California, 1999) approved on March 22, 1999.

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, and 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 Ventura River and its tributaries, 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 USEPA 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, however TMDLs for waters that do not meet the criteria for listing are not subject to approval by USEPA.

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 Board uses for establishing TMDLs is the same whether under section 303(d)(1) or 303(d)(3).

USEPA'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, USEPA must establish its own list or TMDL.

As part of California's 1996, 1998, 2002, 2006, and 2008 303(d) list submittals, the Regional Board identified 1) Ventura River Reaches 1 and 2 as being impaired due to excessive algae growth and 2) Ventura River Estuary as being impaired due to eutrophic conditions. As part of

California's 2002, 2006, and 2008 303(d) list submittals, San Antonio Creek (tributary to Ventura River Reach 4) was listed as having a nitrogen impairment and Cañada Larga (tributary to Reach 2) was listed as having a dissolved oxygen impairment. More specifically, each of these water bodies are included on the 303(d) list because of nutrient-related impairments.

The Nutrients TMDL for Ventura River, including the Estuary, and its tributaries 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 May 30, 2012, a CEQA Scoping meeting was held to present and discuss the foreseeable potential environmental impacts of compliance with the TMDL for Ventura River, including the Estuary, and its tributaries at the Ventura City Hall. Input from all stakeholders and interested parties were solicited for consideration in the development of the CEQA environmental analysis. This SED considers all comments made at the May 30, 2012 CEQA Scoping meeting and written comments made following the meeting submitted by Ojai Valley Sanitary District on June 27, 2012.

This SED is being released for public comments accompanying the TMDL staff report, Basin Plan amendment, and tentative resolution for adoption by the Regional Board; these documents should be considered as a whole when evaluating the environmental impacts of implementing the TMDL. Regional 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 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 Board proposes an amendment to the Basin Plan to incorporate a TMDL to reduce algae, nutrients, and nutrient-related impairments in the Ventura River, including the Estuary, and its tributaries.

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

- To adopt a regulation that will guide Regional Board permitting, enforcement, and other actions to require responsible parties to take appropriate measures to restore and maintain applicable water quality standards pertaining to excessive nutrients in the Ventura River, the Estuary, and its tributaries; and
- To establish Nutrient 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 USEPA's obligations under section 303(d) and under a federal consent decree that would require USEPA to establish these TMDLs if the State does not do so.

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 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 proposed amendment would incorporate into the Basin Plan a Nutrients for the Ventura River, the Estuary, and its tributaries.

The beneficial uses likely to be impaired by excessive algae growth and nutrients include: Water Contact Recreation (REC-1), Non-contact Water Recreation (REC-2), Cold Freshwater Habitat (COLD), Fish Migration (MIGR), Warm Freshwater Habitat (WARM), and Fish Spawning (SPWN).

The Regional Board's goals in adopting the TMDL are to eliminate the significant water quality impacts caused by algae and excessive nutrients in water.

### 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. Narrative WQOs are specified by the Basin Plan. The following narrative WQOs are most pertinent to the Nutrients TMDL.

Biostimulatory Substances: *Water 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 both COLD and SPWN shall not be depressed below 7 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.*

Nitrogen: *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 ( $NO_3-N$ ) or 1 mg/L as nitrite-nitrogen ( $NO_2-N$ ) or as otherwise designated in Table 3-8.*

Basin Plan Table 3-8 presents the nitrogen objective for Ventura River Reaches 5, 4, 3, and 2 as 5mg/L. This limit also applies to Cañada Larga and San Antonio Creek as tributaries to Reaches 2 and 4, respectively.

This nitrogen objective is established for the protection of the MUN beneficial use and objectives in Table 3-8 are waterbody specific. The numeric objective of 10 mg/L and the waterbody specific objective 5 mg/L is not sufficiently protective to control excessive algal growth and eutrophic conditions in the river and estuary 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 Board and implementing parties. The program alternatives include 1) the Nutrients TMDL for the Ventura River and its Tributaries as it is proposed for Regional Board adoption; 2) a nutrients TMDL established by the USEPA, 3) a Nutrients TMDL without WLAs and LAs for nitrogen and phosphorus, 4) a Nutrients TMDL with a different implementation schedule, and 5) and a No Program Alternative in which an Nutrients TMDL is not implemented. Because a TMDL is required by Section 303(d) of the Clean Water Act and a federal consent decree, 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 treatment upgrades and structural and non-structural BMPs that are reasonably foreseeable to be implemented under the Nutrients 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 algae and 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 Nutrients 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 BOARD TMDL**

This program alternative is based on the TMDL that is presently proposed for Regional Board consideration. The proposed TMDL focuses on the reduction of algae and nutrient-related impairments in the Ventura River and its tributaries.

The TMDL WLAs and LAs are established through an amendment to the Basin Plan. The WLAs focus on reductions in sources of nutrients from municipal storm drains and discharges associated with federal discharge permits. The TMDL LAs focus on reductions of local sources associated with runoff and drainage. The LAs will be implemented primarily through regulatory mechanisms that implement the State Board’s 2004 Nonpoint Source Policy, including Conditional Waivers, WDRs, or Discharge Prohibitions.

This alternative provides a program for addressing the adverse impacts of algae and nutrients through progressive controls in discharges to Ventura River and its tributaries through a 6- to 10-year schedule. This schedule is both reasonable and as short as practicable. The WLAs and the

implementation schedule, once they are incorporated into the Basin Plan, will be considered by NPDES permit writers when developing permit limits that are adopted in separate subsequent actions by the Regional Board.

Although the Regional 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. They include methods such as optimizing nitrification-denitrification process at the Ojai Valley wastewater treatment plant (WWTP), stormwater structural BMPs and treatment systems such as biofiltration, alum injection, constructed wetland; nonpoint source BMPs and treatment systems such as filter strips, mulching, improved irrigation efficiency, manure management, grazing management, and anaerobic biodigester systems; onsite wastewater treatment system (OWTS) inspections and upgrades; watershed-wide restoration such as riparian buffers and stream bank stabilization; and non-structural BMPs such as education and outreach.

This TMDL program alternative anticipates compliance through installation of structural BMPs, treatment upgrades, and non-structural BMPs as discussed in Section 5. Potential adverse impacts to the environment stem principally from the installation, operation, and maintenance of structural BMPs and treatment upgrades. This document analyzes these impacts and concludes that installation of implementation projects are of relatively short duration and typical of “baseline” construction and maintenance projects that occur presently in the TMDL area. It also concludes that significant impacts can be mitigated or there are alternative means of compliance available.

#### **4.1.2 ALTERNATIVE 2 – USEPA TMDL**

This program alternative is based on a TMDL that would be established by the United States Environmental Protection Agency (USEPA), pursuant to the consent decree, if the Regional Board fails to adopt a Nutrients TMDL. Because the technical analysis will be very similar to the Regional Board analysis and because the same laws and regulations apply, it is assumed that the technical portions, LAs, and WLAs of this TMDL program alternative will be essentially the same as program alternative 1. However, because such a TMDL is not implemented through a Basin Plan amendment, the WLAs will be implemented through NPDES permit limits as the permits are renewed without consideration of a compliance schedule. Because NPDES permits are renewed every five years, all responsible parties, municipalities, and Caltrans could be required to be in full compliance immediately following the TMDL adoption by USEPA, or within five years.

This TMDL program alternative also anticipates compliance through upgrading treatment facilities, various BMPs, watershed-wide restoration efforts, and non-structural BMPs as discussed in Section 5. Potential adverse impacts to the environment stem principally from the construction and operation of structural BMPs and treatment upgrades. This document analyzes these impacts and concludes that installation of implementation projects are of relatively short duration and typical of “baseline” construction and maintenance projects that occur presently in this TMDL area. It also 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 WITHOUT WLAS AND LAS FOR NITROGEN AND PHOSPHORUS**

This alternative involves a TMDL that does not have WLAs and LAs for nitrogen, but includes monitoring of nitrogen and phosphorus.

A TMDL without WLAs and LAs for nitrogen and phosphorus, only monitoring of nitrogen and phosphorus may avoid those environmental impacts associated with compliance. However, the definition of eutrophication is the algal biomass response to nutrient loading. This alternative would still allow nutrient loading and therefore, continued impairments to the Ventura River and its tributaries. Therefore, alternative 3 would have none of the environmental benefits of the TMDL as proposed, and would not achieve the goals of the CWA or the Porter-Cologne Act.

This alternative is not recommended because while impact to the environment from construction or maintenance of implementation alternatives would be avoided in this alternative, it would *not* restore beneficial uses to the Ventura River or attain water quality standards and represents a continued nutrient impairment of the environment. The ongoing impairment of this waterbody is far more significant than the nominal impacts that the responsible parties discharging nutrients will be forced to endure from construction and implementation of compliance measures because Ventura River provides habitat for endangered California Steelhead and numerous species of threatened and endangered birds and other wildlife and provides recreational opportunities for the community such as picnicking, birding, and walking. This alternative would allow continued impairment of beneficial uses and continued degradation of water quality to the detriment of public health and aquatic life.

Alternative 3 is not a feasible alternative because, while it avoids impacts due to discrete installation projects, it does not achieve any of the project purposes to restore and maintain water quality standards and avert federal intervention in state water quality planning.

#### **4.1.4 ALTERNATIVE 4 – A TMDL WITH A DIFFERENT IMPLEMENTATION SCHEDULE**

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

This TMDL program alternative also anticipates compliance through upgrading treatment facilities, various BMPs, watershed-wide restoration efforts, and non-structural BMPs as discussed in Section 5. Potential adverse impacts to the environment stem principally from the construction and operation of structural BMPs and treatment upgrades. This document analyzes these impacts and concludes that installation of implementation projects are of relatively short duration and typical of “baseline” construction and maintenance projects that occur presently in this TMDL area. It also 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.

#### **4.1.5 ALTERNATIVE 5 – NO PROGRAM ALTERNATIVE**

This program alternative assumes that neither the USEPA nor the Regional Board implements a Nutrients 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. However, the No Project TMDL is contrary to federal and state law and a Court Ordered Consent Decree between citizen plaintiffs and the USEPA. Therefore, the failure to implement a Nutrients TMDL is unlawful.

In addition, while the impact to the environment from construction or maintenance of structural BMPs and treatment upgrades would be avoided in this No Program alternative, a No Program alternative would not restore beneficial uses in the Ventura River and its tributaries. Either the Regional Board- or US EPA-adopted TMDL program alternative will restore beneficial uses and attain water quality standards by removing algae and nutrients from Ventura River and its tributaries. As such, alternatives 1-3 represent a benefit to the environment and alternatives 4-5 represent a continued algae and nutrient impairments.

#### **4.1.4 RECOMMENDED PROGRAM ALTERNATIVE**

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

Alternative 3 is not feasible alternatives because it would not fully implement water quality objectives and protect beneficial uses and thus does not meet the project purpose. Alternative 5 is not a feasible alternative because, while it avoids impacts due to discrete installation projects, algae and nutrient impairments of the Ventura River and its tributaries will continue. Program alternatives 1, 2, and 4 will comply with the law and the federal consent decree, and remove the algae and nutrient impairments from Ventura River and its tributaries at the comparatively small environmental cost of small installation projects throughout the watershed.

The key difference between program alternatives 1 and 2 is the establishment of an implementation 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 10 years. Alternative 2, in contrast, will require compliance at the time of permit renewal, in all permit cases, in less than 5 years. 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, prioritization and planning will likely result in more efficient use of funds and lower overall costs.

The key difference between alternative 1 and 4 is the length of the implementation schedule. The environmental impacts due to alternative 1 than 4 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 Ventura River, the Estuary, and its tributaries. It is practicable to achieve compliance at the WWTP within 10 years as proposed in the TMDL considering available technologies to upgrade the nitrification/denitrification processes at the plant. A longer timeframe is unnecessary and would lead to a longer period of time in which water quality standards continue to be exceeded. It

is practicable for municipal stormwater sources to attain dry-weather WLAs in six years. Dry-weather flow containing pollutants is already prohibited by the existing MS4 permit and the additional BMPs to reduce and/or filter dry-weather flow can be implemented in six years. Likewise, the implementation schedules for all sources assigned LAs and WLAs were developed considering the practicability of implementation.

#### **4.2 PROJECT LEVEL ALTERNATIVES**

The program alternatives above present many alternatives and options, but do not require any specific projects to achieve compliance. Rather, a project level analysis must be performed by the responsible parties that are required to implement the requirements of the TMDL. (Pub. Res. Code § 21159.2.) Notably, the Regional Board is prohibited from specifying the manner of compliance with its regulations (Water Code § 13360), and accordingly, the actual environmental impacts will necessarily depend upon the compliance strategy selected by responsible parties.

Although the Regional 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 during which the manner of compliance was discussed. At this meeting, reasonable means of compliance were discussed, including structural and non-structural implementation alternatives to reduce the overall pollutant loading into Ventura River and its tributaries. Implementation alternatives include: optimizing nitrification-denitrification process at the Ojai Valley wastewater treatment plant (WWTP), stormwater structural BMPs and treatment systems such as biofiltration, alum injection, constructed wetlands; nonpoint source BMPs and treatment systems such as filter strips, mulching, improved irrigation efficiency, manure management, grazing management, and anaerobic biodigester systems; onsite wastewater treatment system (OWTS) inspections and upgrades; watershed-wide restoration such as riparian buffers and stream bank stabilization; and non-structural BMPs such as education and outreach.

The components assessed at a project level have specific locations which will be determined by responsible parties. The project level components will be subject to additional future environmental review, including review by responsible parties implementing TMDL projects. Section 5 of this SED includes an extensive discussion of the project alternatives.

## **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 in compliance with the Nutrients TMDL.

The Regional Board is prohibited from specifying the manner of compliance with its regulations (Water Code § 13360), and accordingly, the actual compliance strategies will be selected by responsible parties. Although the Regional Board does not mandate the manner of compliance, foreseeable methods of compliance are well known. The most likely measures of compliance include optimizing nitrification-denitrification process at the Ojai Valley wastewater treatment plant (WWTP), stormwater structural BMPs and treatment systems such as biofiltration, alum injection, constructed wetlands; nonpoint source BMPs and treatment systems such as filter strips, mulching, improved irrigation efficiency, manure management, grazing management, and anaerobic biodigester systems; onsite wastewater treatment system (OWTS) inspections and upgrades; watershed-wide restoration such as riparian buffers and stream bank stabilization; and non-structural BMPs such as education and outreach.

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

### **5.1 IMPLEMENTATION ALTERNATIVES FOR THE OJAI VALLEY WWTP**

#### **Upgrading Nitrification-Denitrification (NDN) Processes at Ojai Valley WWTP**

The Ojai Valley WWTP currently operates with advance secondary treatment including nitrification and denitrification. Three alternatives have been previously considered by the Ojai Valley Sanitation District to upgrade the WWTP in order to decrease nutrient discharges (MWH, 2007). The first two options consider a total nitrogen limit of 3mg/L, and a phosphorus limit of 1mg/L. The third scenario considers a total nitrogen limit of 1mg/L and a phosphorus limit of 0.1mg /L. The first two alternatives are presented here based on the WLAs for the Ojai WWTP equal to 3 mg/L TN and 1 mg/L TP.

##### **Conversion to Modified Bardenpho process**

The first alternative to improve the plant's denitrification capacity is to convert the existing three stage process (comprised of successive anaerobic, anoxic and anaerobic zones) to a five-stage Modified Bardenpho process. The upgrade consists of the addition to the existing process of a second (post-aeration) anoxic zone, including inclusions of carbon in the form of methanol to increase denitrification, followed by a third aerobic zone.

##### **Addition of denitrification filters**

The second proposed implementation alternative is the addition of denitrification filters to the existing facilities, a process that serves the dual purpose of denitrification and filtration of suspended solids. The heterotrophic microorganisms cultivated on the Granular media denitrification filters will require methanol addition as a source of carbon to sustain growth.

With either of these alternatives optimization of phosphorus removal can be added. Based on the MWH (2007) report the facility has capabilities to include alum or other coagulant treatments.

## 5.2 URBAN RUNOFF IMPLEMENTATION ALTERNATIVES

### Biofilter Systems

Biofilters, also known as vegetated swales and filter strips, are vegetated slopes and channels designed and maintained to transport runoff slowly over vegetation (Figure 5-1). The slow movement of runoff through the vegetation provides an opportunity for sediments and particulates to be filtered and degraded through biological activity. In most soils, the biofilter also provides an opportunity for infiltration of dry-weather runoff and storm water, which further removes nutrients and reduces runoff volumes. Swales convey flows to a vegetation-lined channel and grass filter strips intercept sheet runoff to a uniformly graded buffer zone. Grass strips and vegetated swales can function as pretreatment systems for water entering bioretention systems or other BMPs. These can be installed as on-site features of developments or in street medians, parking lot islands, or curb extensions (CASQA, 2003a).

Vegetated swales or filter strips, based on case studies, are capable of managing runoff from small drainage areas with approximate sizes of 10 acres. The vegetated swale and grass strip-planting palette can comprise a wide range of possibilities from dense vegetation to turf grass. (CASQA, 2003a).

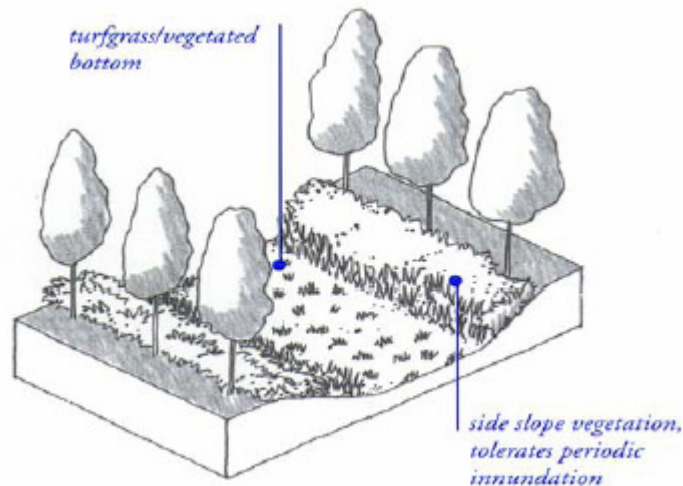


Figure 5-1. Schematic of Vegetated Swale (Source: CASQA, 2003a)

### Alum Injection Systems to treat urban runoff

Alum injection systems are another treatment option for dry weather or stormwater runoff. Alum injection is the process of adding aluminum sulfate salt (alum), to stormwater prior to discharge

into the river. The systems can be installed and sited at appropriate locations in the watershed. Alum fixes itself to common pollutants, such as phosphorus, and the floc settles from the water column. Studies of the effectiveness of nutrient removal report 30 - 90 percent removal for nitrogen and phosphorus.

Parameters to be considered for design of the automated alum injection system include the stormwater drainage area, flow rate of stormwater discharge, locations of the system, and the seasonal precipitation.

### **Constructed wetlands**

Constructed treatment wetlands (Figure 5-2) are designed to maximize the removal of pollutants from storm water and dry-weather urban runoff through settling and uptake and filtering by vegetation. Constructed wetlands temporarily store runoff in a shallow marsh that support conditions suitable for the growth of wetland plants. These excess nutrients are absorbed by wetland soils and taken up by plants and microorganisms.

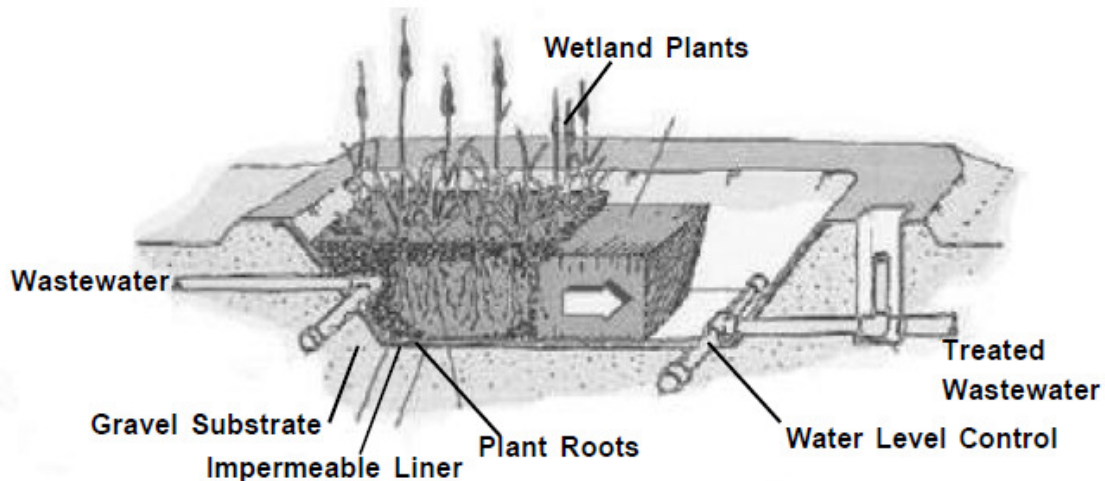


Figure 5-2. Schematic of Constructed Treatment Wetland (Source: USEPA, 2004)

## **5.3 AGRICULTURE IMPLEMENTATION ALTERNATIVES**

### **Filter Strips**

According to the NRCS Conservation Practice Standard for Filter Strips (Code 393), a filter strip is a strip or area of vegetation that lies between cropland or grazingland and riparian areas. Filter strips treat runoff and are not part of the adjacent cropland rotation. Overland flow entering the filter strip must be sheet flow and concentrated flow must be dispersed (NRCS, 2000).

### **Mulching**

Mulching is effective at reducing runoff from agricultural areas and reducing nutrients entering surface waters as well as groundwater. The NRCS Conservation Practice Standard for Mulching (Code 484) specifies that mulching should be applied at a rate to achieve a minimum of 70 percent ground cover to provide erosion control. According to the NRCS Field Office Technical Guide (FOTG) for mulching, the reported lifespan for this practice is one year, but local NRCS staff has reported that woody mulch can last two to three years and mulch residue can last up to five years (NRCS, 2000).

### **Improved Irrigation Efficiency and Nutrient Management**

Low-volume irrigation systems such as drip tapes or micro sprinklers (Figure 5-3) are effective in preventing irrigation water runoff. A well-designed system loses practically no water through runoff, deep percolation, or evaporation. For example, drip irrigation reduces water contact with crop leaves, stems, and fruit. Thus conditions may be less favorable for the onset of diseases. Irrigation scheduling can be managed precisely to meet crop demands, holding the promise of increased yield and quality. Agricultural chemicals can be applied more efficiently with drip and micro irrigation. Since only the crop root zone is irrigated, nitrogen already in the soil is less subject to leaching losses, and applied fertilizer nitrogen can be used more efficiently.



Figure 5-3. Drip tapes, left, and microirrigation stakes, right, are low-volume irrigation systems. (Source: Mangiafico, 2010)

### **Manure Management**

Manure management requires horses and/or livestock owners to collect, store, and dispose of manure in a manner that minimizes nutrient contributions to the river. One method to properly store manure is to construct manure bunkers that prevent stormwater and dry-weather runoff from carrying nutrients to the river.

### **Grazing Management**

Grazing management protects stream banks, riparian zones, and minimizes nutrient contributions to the river and tributaries. Grazing management includes using fencing, stream crossings, and providing alternative drinking locations in order to exclude livestock from sensitive areas. Grazing management can also reduce upland erosion through prescribed grazing, seeding, and gully erosion control which utilizes grade stabilization and ponds. Federal land managers (i.e. Bureau of Land Management, Forest Service) have plans with recommendations for grazing management practices (US EPA, 2003).

Preventing horses and cattle access to waterways requires the installation of fences along portions of streams susceptible to damage and installation of watering facilities to provide an alternative water source for the animals (Figure 5-4). Artificial watering systems can be designed and built to supply water without animals having direct access to the waterbody. Alternative water supplies should be provided by diverting or pumping water to animals, such as using watering tanks. Clean water sources benefit animal health and rate-of-gain as well as water quality.



Fencing will prevent horses and livestock from entering waterways and eliminate any nutrient contamination threat through direct waste discharge into a waterbody.

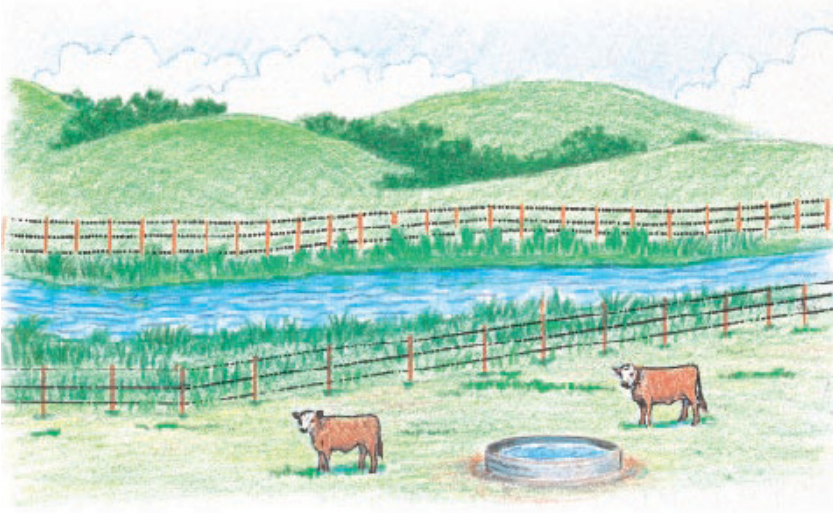


Figure 5-4. Excluding livestock from riparian areas and providing alternative watering sources (Source: OCES, 1998).

### **Anaerobic Biodigester Systems**

Manure produced by horses and livestock can be converted to biogas for renewable source of energy. The biodigester mixes organic wastes and manure with water and bacteria. During anaerobic digestion, bacteria break down organic wastes and manure in an oxygen-free environment. During anaerobic digestion, bacteria break down organic wastes and manure in an oxygen-free environment. One of the natural products of anaerobic digestion is biogas, which typically contains between 60 to 70 percent methane, 30 to 40 percent carbon dioxide, and trace amounts of other gases. When biogas is captured, it can be used to generate heat, hot water, or electricity—significantly reducing the cost of electricity and other farm fuels such as natural gas, propane, and fuel oil (USEPA, 2002). Biodigester systems have four basic components: a digester, a gas-handling system, a gas-use device, and a manure storage tank or pond to hold the treated effluent prior to land application (Figure 5-5).

The Waste to Energy project team is proposing to build an anaerobic digester in the Ojai Valley (W2E) to convert organic wastes produced in the area to energy (electricity/biogas), compost, and liquid fertilizer (W2E, 2010). The solid organic wastes in the Ojai Valley are estimated to be 30-70 tons/day; the proposed biodigester, with a capacity of 50-75 tons/day, could potentially treat the majority this waste.

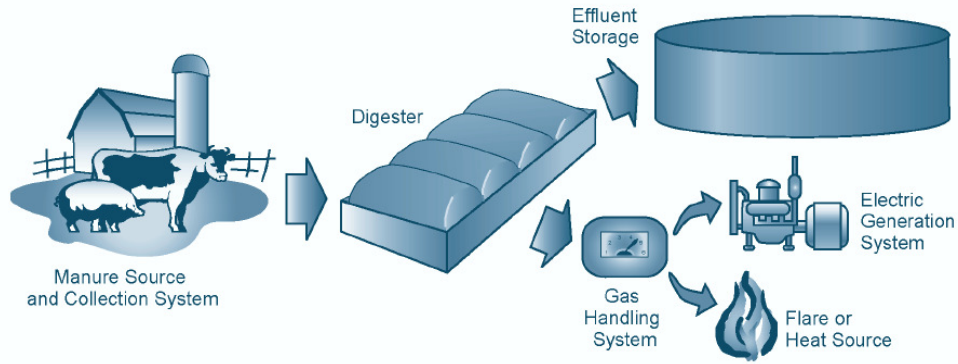


Figure 5-5. Schematic of the components and products of a biodigester systems (Source: EPA, 2002).

#### 5.4. OWTS INSPECTIONS AND UPGRADES

Various actions may be required to reduce the loading from OWTS. These may include actions ranging from inspection or regular monitoring to the installation of supplemental treatment. Over a period time all OWTS must be evaluated. If OWTS fail to pass the inspections, supplemental treatment and upgrades may be required.

OWTS construction procedures typically involve excavations for placement of septic tanks, supplemental treatment systems, dispersal systems, and electric lines (power and phone), seepage pits, shallow dispersal trenches, and groundwater monitoring wells. They also may 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.

#### 5.5. WATERSHED WIDE IMPLEMENTATION

##### Riparian Buffers and Stream Bank Stabilization

Riparian buffers consist of an area of trees, usually accompanied by grasses, shrubs, and other vegetation that are adjacent to a waterbody (Figure 5-6). They reduce the impact of nonpoint source pollution by trapping and filtering sediments, nutrients, and other chemicals from surface runoff and shallow groundwater. The leaf canopy provides shade that keeps the water cool, discouraging algae growth and thus retaining more dissolved oxygen. Trees and shrubs near the waterway stabilize the bank, improve and protect the aquatic environment, and protect stream banks from flood erosion and debris damage. Riparian enhancements may include a wide variety of practices intended to restore the natural condition and function of the river and its riparian area. These practices may include stream bank stabilization and outfall protection, planting of stream bank vegetation and establishment of sufficient stream buffers, removal of invasive plant species, improvement of floodplain connections, removal of fish barriers, and enhancement of wetlands (OCES, 1998).

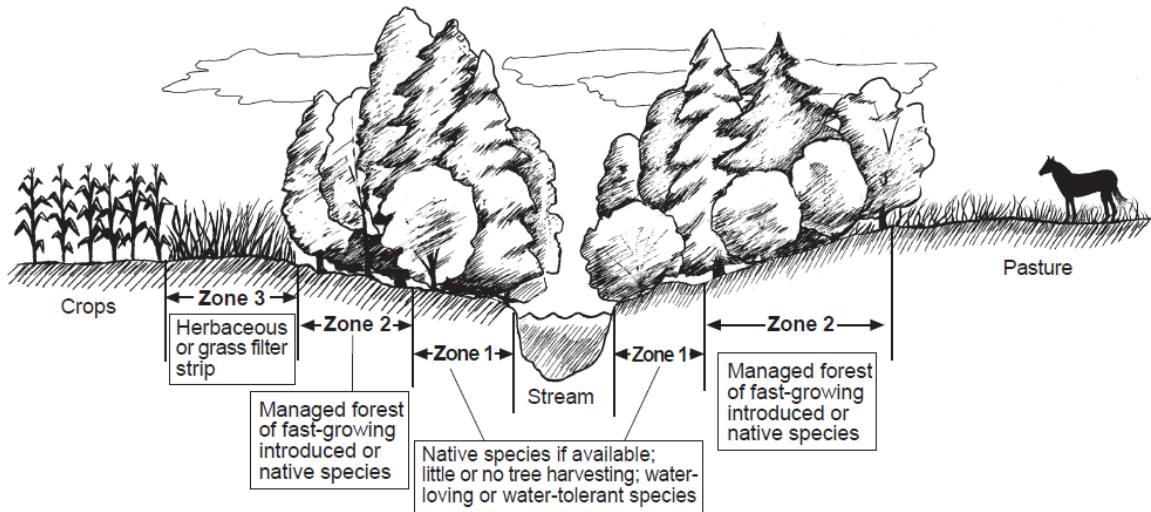


Figure 5-6. Schematic of Riparian Forest Buffer Strip (Source: USDA, 1997)

## 5.6. NON-STRUCTURAL BMPS

Non-structural BMPs include educational and pollution prevention practices designed to improve water quality by reducing a variety of nutrient sources. Non-structural BMPs provide for the development of algae and nutrient control programs that include, but are not limited to prevention, education, and regulation. Less significant adverse impacts on the environment are anticipated for these controls. These programs are described below:

### Public education and outreach

Education and outreach to residents may minimize the potential for contamination of storm water and dry-weather runoff by encouraging residents to clean up after their pets, pick up litter, minimize runoff from agricultural, residential, and commercial facilities, and control excessive irrigation. Residents can reduce the nutrient pollutants coming from their lawns and septic systems if they understand the impacts of their actions and respond with appropriate management measures.

Local agencies can provide educational materials to the public via television, radio, online, and print media, distribute brochures, flyers, and community newsletters, create information hotlines to outreach to educators and schools, develop community events, and support volunteer monitoring and cleanup programs.

### Preventing illegal discharges

Illegal discharges are substances deposited in storm sewers (that lead to streams) that should instead be handled as wastewater discharges. Illegal discharges may contain nutrients. Local agencies may implement a program to identify and remove existing illegal discharges and to prevent future illegal discharges.

## **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 Substitute Environmental Document (SED). The implementation alternatives for achieving compliance with the Nutrients 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 Nutrients TMDL is discussed in Section 6.1.3, as well as the installation, operation, and maintenance activities associated with the Nutrients TMDL. There is also a discussion of the site-specific and device-specific environmental impacts from implementing the Nutrients TMDL. 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 also 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 Nutrients TMDL depend upon the specific compliance projects selected by the responsible parties, most of whom are public agencies 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 Ventura River watershed area, totaling an estimated 228 square miles. This area is the geographic area for assessing impacts of the different implementation alternatives, because the excessive algae growth and nutrient loading to this area would be controlled and/or eliminated by any one of or a combination of the implementation alternatives. Also, 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 parties once their mode of achieving compliance with the Nutrients 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. Several handbooks are available and currently used by municipal agencies that provide guidance for the selection and implementation of BMPs (CASQA, 2003a, CASQA, 2003b, WERF, 2005).

#### **6.1.2 PROGRAM LEVEL VERSUS PROJECT LEVEL ANALYSIS**

As previously discussed, the Regional Board is the lead agency for the TMDL program, while the responsible parties are the lead agencies for any and all projects implemented, within their jurisdiction, to comply with the program. The Regional Board does not specify the actual means of compliance by which responsible 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 parties that will implement the Regional Board's TMDL.

### **6.1.3 ENVIRONMENTAL SETTING**

The Ventura River watershed (Figure 6-1) is located in the northwestern portion of Ventura County with a small portion in southeastern Santa Barbara County. The Ventura River has several major tributaries including Matilija Creek, North Fork Matilija Creek, San Antonio Creek, Coyote Creek and Cañada Larga. Municipalities within the watershed include the County of Ventura and the Cities of Ojai and Ventura. The watershed drains a fan-shaped area of about 228 square miles.

The Ventura River starts at the confluence of Matilija Creek and the North Fork Matilija Creek in the upper watershed. The Ventura River flows about 16 miles in a southerly direction to the estuary and the Pacific Ocean. At estuary, the river traverses an alluvial delta and forms a lagoon at the ocean shore. A sand bar generally closes during low flow months. The sand bar may be breached by higher river flows during winter months.

Flow in the Ventura River varies seasonally depend on the area's Mediterranean climate pattern with wet winters and dry summers in southern California. Typically there is perennial flow from the headwaters to the Robles Diversion Dam, which is located about two miles downstream from the Matilija Dam. The Robles Diversion Dam was built in 1958 and is used to divert water from the Ventura River into Lake Casitas via the Robles-Casitas Canal. A minimum flow of 20 cfs must be allowed to pass the diversion, but all flows above this level (up to a maximum of 500 cfs) may be diverted to the lake. Downstream of the Robles Diversion Dam to the confluence with San Antonio Creek the flow is intermittent, particularly during the summer months. Geologic changes in the area of Casitas Springs causes rising groundwater and provides perennial base flow in the river. The flow in the river is disrupted again at Foster Park due to subsurface diversions and groundwater extraction. However, below Foster Park the river flow to the estuary is increased by effluent discharges from the Ojai Valley Sanitary District Wastewater Treatment Plant, which is the only major point source in the watershed.

There are two reservoirs within the watershed, Lake Casitas and Matilija Reservoir. Lake Casitas serves as an important source of municipal supply water and is a popular recreation area. Casitas Dam was built in 1958 as part of the Ventura River Project by Reclamation. The Matilija Dam was originally constructed in 1947 to supply water for both agriculture and municipal uses and provide limited flood control. However, over the past years large amounts of sediment has been trapped behind the dam and the storage capacity for the purposes of water supply or flood control has been significantly reduced. The Matilija Dam will be removed to restore the Ventura River and the natural ecosystem.

Land uses in the watershed are 85% of open space, 4.5% of agriculture, 2.9% of low density residential, 2.1% of industrial, 1.9% of water, 1.9% of high density residential, 0.5% of public facilities, 0.5% of recreation, 0.3% of commercial, 0.3% of education institutions, 0.3% of horse ranch/livestock, 0.2% of transportation, less than 0.1% of mixed urban.

The Ventura River and its tributaries Nutrients TMDL applies to reaches on the 303(d) list of impaired waters, including the Estuary, Reaches 1 and 2, and San Antonio Creek. However, flows from the entire watershed may impact the impaired reaches and are subject to this TMDL.

Therefore, the Environmental Setting includes a discussion of the entire watershed. Nonetheless, the reasonably foreseeable impacts of implementing the TMDL would only occur in the portion of the watershed assigned WLAs and LAs. This would include the urbanized portions of the watershed served by the storm drain system, as well as agricultural lands and low density residential areas. The remaining portion of the watershed, which comprises 85% of the watershed, is open space.

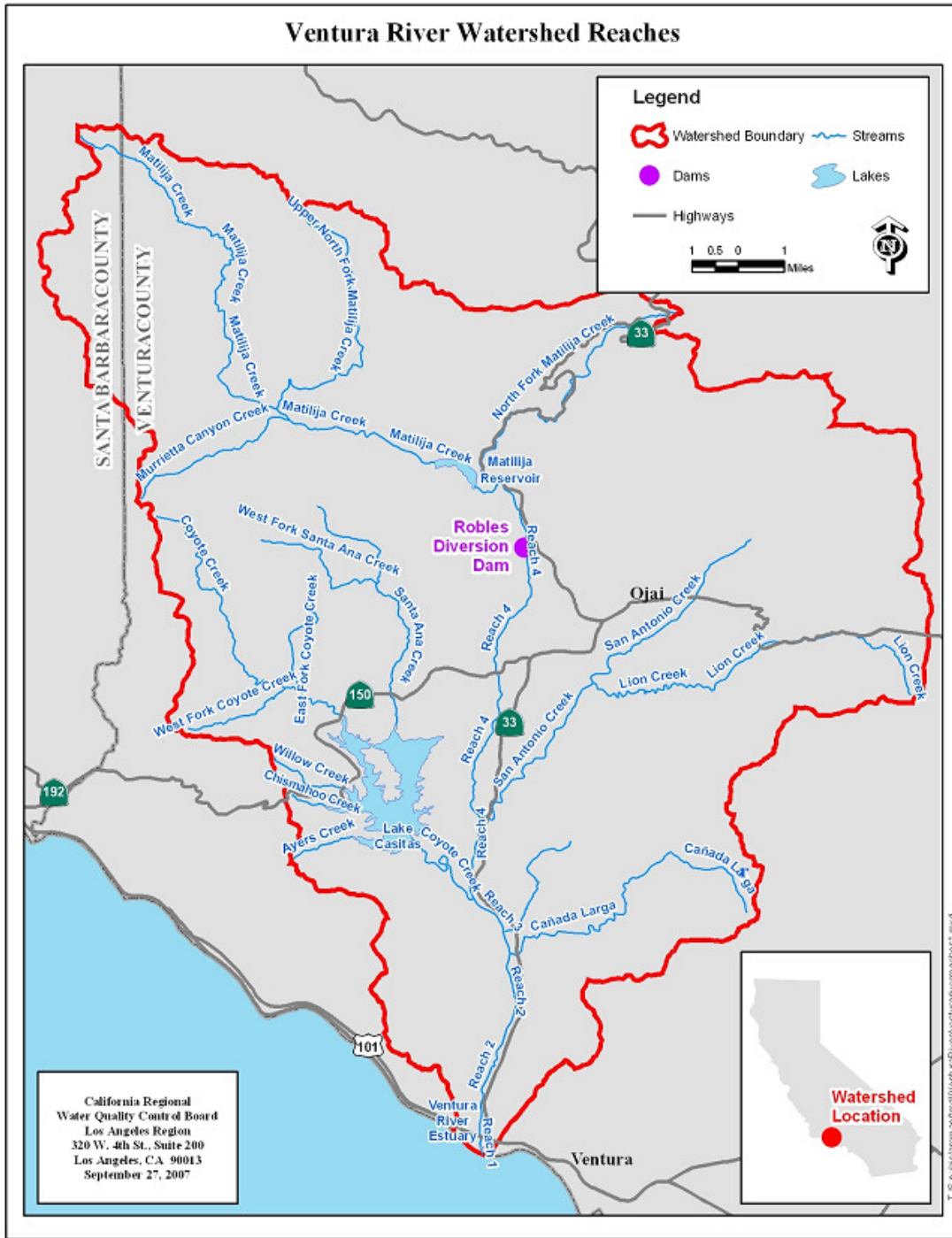


Figure 6-1. Ventura River Watershed

#### **6.1.4 BENEFICIAL USES OF VENTURA RIVER AND ITS TRIBUTARIES**

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 algae and nutrient-related pollutants in the Ventura River and its tributaries are provided in this section.

The Basin Plan defines 20 beneficial uses for Ventura River and its tributaries (Table 6-1). These uses are recognized as existing (E), potential (P) or Intermittent (I) uses. Excessive algal growth and high nutrient loadings to Ventura River and its tributaries may result in impairments of beneficial uses associated with recreation (REC1 and REC2), aquatic life (WARM, COLD, EST, WILD, RARE, MIGR, SPWN, and WET), and water supply (MUN). The designated beneficial uses identified as impaired due to elevated levels of algae and nutrients in the Ventura River and its tributaries are briefly described below.

- **Recreational Uses (REC-1 and REC-2)**  
Water Contact Recreation (REC-1) and Non-Contact Water Recreation (REC-2) are defined as uses of water for recreational activities involving body contact and proximity to water. Some of these activities include swimming and fishing, and where the ingestion of water is reasonably possible.
- **Aquatic Life Uses (WARM, COLD, EST, MAR, WILD, RARE, MIGR, SPWN, and WET)**  
Several aquatic life beneficial uses are designated for Ventura River and its tributaries. These uses include: the warm freshwater habitat (WARM); cold freshwater habitat (COLD); estuarine habitat (EST); wildlife habitat (WILD); rare, threatened, or endangered species habitat (RARE); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN); and wetland land habitat (WET).
- **Water Supply Use (MUN)**  
Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.



**Table 6-1. Beneficial Uses of Ventura River and its tributaries (LARWQCB, 1994)**

Watershed	Hydro. Unit No.	MUN	IND	PROC	AGR	GWR	FRSH	NAV	RECI	REC2	COMM	WARM	COLD	EST	MAR	WILD	RARE	MIGR	SPWN	SHELL	WET
Ventura River Estuary	402.10							E	E	E	E	E		E	E	E	Ee	Ef	Ef	E	E
Ventura River	402.10	P*	E		E	E	E		E	E		E	E			E	E	E	E		E
Ventura River	402.20	E	E	E	E	E	E		E	E		E	E			E	Eg	E	E		E
Canada Larga	402.10	P*		I	I	I	I		I	I		I	I			E		I	I		
San Antonio Creek	402.20	E	E	E	E	E			E	E		E	E			E		E	E		E
San Antonio Creek	402.32	E	E	E	E	E	E		E	E		E	E			E		E	E		E
Matilija Creek	402.20	P*				E			E	E			E			E		E	E		E
North Fork Matilija Creek	402.20	E*	E	E	E	E			E	E		E	E			E	E	E	E		E
Matilija Reservoir	402.20	E			E	E	E		E	E		E	E			E		E	E		E

**Beneficial use designations apply to all tributaries to the indicated water body, if not listed separately.**

**E: Existing beneficial use**

**P: Potential beneficial use**

**I: Intermittent beneficial use**

**\*: Some designations may be considered for exemptions at a later date.**

**Footnotes:**

**e: One or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.**

**f: Aquatic organisms utilize all bays, estuaries, lagoons and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.**

**g: Condor refuge.**

## 6.2. CEQA CHECKLIST AND DETERMINATION

### 6.2.1 ENVIRONMENTAL CHECKLIST

	<b>ENVIRONMENTAL CHECKLIST</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
<b>1.</b>	<b>Earth. Will the proposal result in:</b>				
	a. Unstable earth conditions or in changes in geologic substructures?	X			
	b. Disruptions, displacements, compaction or overcoming of the soil?	X			
	c. Change in topography or ground surface relief features?				X
	d. The destruction, covering or modification of any unique geologic or physical features?	X			
	e. Any increase in wind or water erosion of soils, either on or off the site?	X			
	f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	X			
	g. Exposure of people or property to geologic hazards, such as earthquakes, landslides, mudslides, ground failure, or similar hazards?				X
<b>2.</b>	<b>Air. Will the proposal result in:</b>				
	a. Substantial air emissions or deterioration of ambient air quality?	X			
	b. The creation of objectionable odors?	X			
	c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?			X	
<b>3.</b>	<b>Water. Will the proposal result in:</b>				

	<b>ENVIRONMENTAL CHECKLIST</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
	a. Changes in currents, or the course of direction or water movements, in either marine or fresh waters?	X			
	b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?	X			
	c. Alterations to the course of flow of flood waters?	X			
	d. Change in the amount of surface water in any water body?	X			
	e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?	X			
	f. Alteration of the direction or rate of flow of ground waters?	X			
	g. Change in the quantity or quality of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	X			
	h. Substantial reduction in the amount of water otherwise available for public water supplies?				X
	i. Exposure of people or property to water related hazards such as flooding or tidal waves?				X
<b>4.</b>	<b>Plant Life. Will the proposal result in:</b>				
	a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, microflora and aquatic plants)?	X			
	b. Reduction of the numbers of any unique, rare or endangered species of plants?	X			
	c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	X			
	d. Reduction in acreage of any agricultural crop?	X			
<b>5.</b>	<b>Animal Life. Will the proposal result in:</b>				

	<b>ENVIRONMENTAL CHECKLIST</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
	a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects or microfauna)?	X			
	b. Reduction of the numbers of any unique, rare or endangered species of animals?	X			
	c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	X			
	d. Deterioration to existing fish or wildlife habitat?	X			
<b>6.</b>	<b>Noise. Will the proposal result in:</b>				
	a. Increases in existing noise levels?	X			
	b. Exposure of people to severe noise levels?	X			
<b>7.</b>	<b>Light and Glare. Will the proposal:</b>				
	a. Produce new light or glare?	X			
<b>8.</b>	<b>Land Use. Will the proposal result in:</b>				
	a. Substantial alteration of the present or planned land use of an area?				X
<b>9.</b>	<b>Natural Resources. Will the proposal result in:</b>				
	a. Increase in the rate of use of any natural resources?				X
	b. Substantial depletion of any nonrenewable natural resource?				X

	<b>ENVIRONMENTAL CHECKLIST</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
<b>10.</b>	<b>Risk of Upset. Will the proposal involve:</b>				
	a. A risk of an explosion or the release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	X			
<b>11.</b>	<b>Population. Will the proposal:</b>				
	a. Alter the location, distribution, density, or growth rate of the human population of an area?				X
<b>12.</b>	<b>Housing. Will the proposal:</b>				
	a. Affect existing housing, or create a demand for additional housing?				X
<b>13.</b>	<b>Transportation/Circulation. Will the proposal result in:</b>				
	a. Generation of substantial additional vehicular movement?	X			
	b. Effects on existing parking facilities, or demand for new parking?	X			
	c. Substantial impact upon existing transportation systems?	X			
	d. Alterations to present patterns of circulation or movement of people and/or goods?	X			
	e. Alterations to waterborne, rail or air traffic?				X
	f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	X			
<b>14.</b>	<b>Public Service. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:</b>				

	<b>ENVIRONMENTAL CHECKLIST</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
	a. Fire protection?	X			
	b. Police protection?	X			
	c. Schools?				X
	d. Parks or other recreational facilities?	X			
	e. Maintenance of public facilities, including roads?	X			
	f. Other governmental services?	X			
<b>15.</b>	<b>Energy. Will the proposal result in:</b>				
	a. Use of substantial amounts of fuel or energy?	X			
	b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	X			
<b>16.</b>	<b>Utilities and Service Systems. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:</b>				
	a. Power or natural gas?	X			
	b. Communications systems?	X			
	c. Water?	X			
	d. Sewer or septic tanks?	X			
	e. Storm water drainage?	X			
	f. Solid waste and disposal?	X			
<b>17.</b>	<b>Human Health. Will the proposal result in:</b>				
	a. Creation of any health hazard or potential health hazard (excluding mental health)?	X			
	b. Exposure of people to potential health hazards?	X			

	<b>ENVIRONMENTAL CHECKLIST</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
<b>18.</b>	<b>Aesthetics. Will the proposal result in:</b>				
	a. The obstruction of any scenic vista or view open to the public?	X			
	b. The creation of an aesthetically offensive site open to public view?	X			
<b>19.</b>	<b>Recreation. Will the proposal result in:</b>				
	a. Impact upon the quality or quantity of existing recreational opportunities?	X			
<b>20.</b>	<b>Archeological/Historical. Will the proposal:</b>				
	a. Result in the alteration of a significant archeological or historical site structure, object or building?	X			
<b>21.</b>	<b>Mandatory Findings of Significance</b>				
	<b>Potential to degrade:</b> 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>Short-term:</b> Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.)				X

	<b>ENVIRONMENTAL CHECKLIST</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant	No Impact
	<b>Cumulative:</b> Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	X			
	<b>Substantial adverse:</b> 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

The analysis of potential environmental impacts is based on the numerous alternative means of compliance available for controlling algae and nutrients in the Ventura River and its tributaries in response to the proposed Basin Plan amendment. These include structural methods such as optimizing nitrification-denitrification process at the Ojai Valley wastewater treatment plant (WWTP), stormwater structural BMPs and treatment systems such as biofiltration, alum injection, constructed wetland; nonpoint source BMPs and treatment systems such as filter strips, mulching, improved irrigation efficiency, manure management, grazing management, and anaerobic biodigester systems; onsite wastewater treatment system (OWTS) inspections and upgrades; watershed-wide restoration such as riparian buffers and stream bank stabilization; and non-structural BMPs such as education and outreach. Potential impacts are discussed below. Many of the mitigation measures identified are common practices currently employed by agencies when planning and implementing BMPs. Agencies such as CASQA publish handbooks containing guidance on the selection, siting, design, installation, monitoring, and evaluation of stormwater BMPs (CASQA, 2003a, CASQA, 2003b, WERF, 2005).

Pursuant to section 13360 of the Water Code, the Regional Board cannot dictate which compliance measures responsible parties may choose to adopt or which mitigation measures they would employ to implement the Nutrients TMDL. However, the Regional Board does recommend that appropriate compliance and mitigation measures as discussed herein, which are readily available and generally considered to be consistent with industry standards, be applied in order to reduce, and if possible avoid, potential environmental impacts, such that there is no significant impact. Since the decision to perform these measures is strictly within the responsibility and jurisdiction of the individual responsible parties, such measures can and should be adopted by these parties. (Title 14, California Code of Regulations, Section 15091(a)(2).)

Potential reasonably foreseeable impacts were evaluated with respect to earth, air, water, plant life, animal life, noise, light, land use, natural resources, risk of upset, population, housing, transportation, public services, energy, utilities and services systems, human health, aesthetics, recreation, and archeological/historical concerns. Additionally, mandatory findings of significance regarding short-term, long-term, cumulative and substantial impacts were evaluated. The evaluation considered whether the construction or implementation of the BMPs would cause a substantial, adverse change in any of the physical conditions within the area affected by the BMP. In addition, the evaluation considered environmental effects in proportion to their severity and probability of occurrence.

The following analysis considers a range of implementation alternatives that might be used, but is by no means an exhaustive list of available alternatives. When BMPs are selected for implementation, a project level and site-specific CEQA analysis must be performed by the responsible parties.

- 1. Earth. a.** Will the proposal result in unstable earth conditions or in changes in geologic substructures?

Answer: Potentially Significant Impact

### Improvement of NDN Processes at WWTP

Upgrading NDN systems requires relatively shallow earthwork, as they are surface structures, and would not cause changes in geologic substructures. However, the installation of additional treatment components may potentially result in unstable earth conditions, if loose or compressible soils are present. These impacts can be avoided by proper modeling, monitoring, and siting measures of compliance away from areas with loose or compressible soils.

### Urban Runoff and Agriculture BMPs

These implementation alternatives could potentially result in unstable earth conditions if loose or compressible soils are present, or if such BMPs were to be located where infiltrated stormwater flowing as groundwater could destabilize existing slopes. There are areas within the Ventura River watershed with significant rising groundwater. 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.

### Watershed-Wide Implementation

Riparian buffers and streambank stabilization would be reduce the possibility for unstable earth conditions by reducing erosion and restoring the natural functioning of the river and its riparian area and floodplain. It is thus a positive impact.

### Manure Management/Grazing Management

These implementation alternatives would not be of the size or scale to result in unstable earth conditions or in changes in geologic substructures.

### Anaerobic Biodigester Systems

Installation of biodigester systems requires relatively shallow earthwork, as they are surface structures and would not cause changes in geologic substructures. However, the installation of treatment components may potentially result in unstable earth conditions, if loose or compressible soils are present. These impacts can be avoided by proper studying, monitoring, and siting measures of compliance away from areas with loose or compressible soils.

### Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would have no impact on earth conditions or geologic substructures.

### OWTS Upgrades

OWTS treatment upgrades or connection to the sewer requires relatively shallow earthwork, and would not cause changes in geologic substructures. However, the installation of treatment components may potentially result in unstable earth conditions, if loose or compressible soils are present. These impacts can be avoided by proper studying, monitoring, and siting measures of compliance away from areas with loose or compressible soils.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These responsible parties 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)).

**1. Earth. b.** Will the proposal result in disruptions, displacements, compaction or overcoming of the soil?

Answer: Potentially Significant Impact

Improvement of NDN Processes at WWTP/ Urban Runoff and Agriculture BMPs/ Anaerobic Biodigester Systems/OWTS Upgrades

These implementation alternatives may involve soil excavation or ground disturbance that may potentially cause disruptions, displacements, compaction or overcoming of the soil. However, these alternatives would take place at existing facility sites that have already suffered soil compaction and hardscaping. Impacts would be similar to those caused by typical temporary capital improvement construction and maintenance activities currently performed by responsible parties, and no long-term impacts to the soil are expected. However, to the extent that any soil is disturbed during construction, the impacts can be minimized by proper siting, design, and construction practices. Standard construction techniques, including but not limited to, shoring, piling, and soil stabilization can also mitigate potential short-term impacts. It is anticipated that the potential impact may be mitigated by adhering to seismic and geotechnical codes and requirements for the TMDL area.

Watershed-Wide Implementation

Riparian buffers and streambank stabilization would be reduce the possibility for disruptions, displacements, compaction or overcoming of the soil by reducing erosion and restoring the natural functioning of the river and its riparian area and floodplain. It is thus a positive impact.

Manure Management/Grazing Management

These implementation alternatives would not be of the size or scale to result in disruptions, displacements, compaction or overcoming of the soil.

Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would have no potential to cause disruptions, displacements, compaction or overcoming of the soil.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

1. **Earth. c.** Will the proposal result in change in topography or ground surface relief features?

Answer: No Impact

Improvement of NDN Processes at WWTP/ Urban Runoff and Agriculture BMPs/ Anaerobic Biodigester Systems/OWTS Upgrades

These implementation alternatives will require soil excavation or ground disturbance. However, it is not expected that they would be of the size or scale that would impact topography or ground surface relief features.

Manure Management/Grazing Management/Watershed-Wide Implementation

These implementation alternatives would not be of the size or scale that would impact topography or ground surface relief features.

Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would have no impact on topography or ground surface relief features.

1. **Earth d.** Will the proposal result in the destruction, covering or modification of any unique geologic or physical features?

Answer: No Impact

None of the implementation alternatives would be of the size or scale to result in destruction, covering or modification of any unique geologic or physical features.

1. **Earth. e.** Will the proposal result in any increase in wind or water erosion of soils, either on or off the site?

Answer: Potentially Significant Impact

There is the potential for soil erosion to occur under the implementation alternatives. During construction of various alternatives, soils and sediments will be excavated, which will expose

areas of soil to wind and water erosion. The potential for soil erosion will be temporary and is expected to cease with the cessation of construction activities. To mitigate soil erosion once projects are completed, all soils used in the project should be properly compacted in accordance with the local agency specifications and excavated material should be properly disposed. BMPs should be undertaken to control runoff and erosion from earth-moving activities such as excavation, recontouring, and compaction. All trenching and recontouring activities should be performed under the observation of a qualified engineer. These measures will reduce the potential for wind or water erosion of soil from the area.

#### Improvement of NDN Processes at WWTP/Upgrades to OWTS

These implementation alternatives would result in soil excavation during construction and installation, which could introduce the potential for soil to be eroded. Erosion of soils may occur as a short-term impact during construction. Typical established construction BMPs should be used to minimize sediment runoff. Responsible parties may use silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation in order to reduce soil erosion. Construction plans should also minimize clearing and grading activities and phase construction to limit soil exposure, stabilize exposed soils immediately, protect steep slopes and cuts, and install sediment controls. Construction sites are required to retain sediment on site, both under general construction storm water permits and through the construction program of the applicable MS4, both of which are designed to minimize or eliminate erosion impacts on receiving water.

#### Urban Runoff and Agriculture BMPs

These implementation alternatives would result in soil excavation during construction, which could introduce the potential for soil to be eroded. Erosion of soils may occur as a short-term impact during construction. Typical established construction BMPs should be used to minimize sediment runoff. When alternatives are completed, vegetation or treatment systems would trap sediment and reduce runoff and soil erosion. This is considered a beneficial impact.

#### Watershed-Wide Implementation

These implementation alternatives would result in soil excavation during construction, which could introduce the potential for soil to be eroded. Erosion of soils may occur as a short-term impact during construction. Typical established construction BMPs should be used to minimize sediment runoff. When alternatives are completed, vegetation or riparian corridor would trap sediment and reduce runoff and soil erosion. This is considered a beneficial impact.

#### Manure Management/Grazing Management

This implementation alternative may result in soil excavation during fencing, which could introduce the potential for soil to be eroded. Erosion of soils may occur as a short-term impact. Typical established construction BMPs should be used to minimize sediment runoff. When the alternative is completed, fencing would prevent the movement of animals in riparian areas and reduce soil disturbance. This is considered a beneficial impact.

#### Anaerobic Biodigester Systems

This implementation alternative would result in soil excavation during construction and installation, which could introduce the potential for soil to be eroded. Erosion of soils may occur

as a short-term impact during construction. Typical established construction BMPs should be used to minimize sediment runoff. Construction sites are required to retain sediment on site, both under general construction storm water permits and through the construction program of the applicable MS4, both of which are designed to minimize or eliminate erosion impacts on receiving water.

#### Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would not result in increase in wind or water erosion of soils, either on or off the 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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**1. Earth. f.** Will the proposal result in changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?

Answer: Potentially Significant Impact

#### Improvement of NDN Processes at WWTP

NDN systems are on-site systems at the existing WWTP and would not result in changes in siltation, deposition or erosion which may modify the channel of a river or stream.

#### Urban Runoff and Agriculture BMPs

These implementation alternatives may impact siltation or deposition of sand in the river. Reduction in siltation in the river may be considered a positive impact as fine sediments may contain nutrient pollutants. The BMPs for this TMDL are needed in order to address dry-weather impairments. Sufficient sediment delivery will occur in wet-weather events to replenish beach sands.

#### Watershed-wide Implementation

This implementation alternative may result in soil excavation during restoration and stabilization projects, which could impact siltation or deposition of sand in the river. Erosion of soils may occur as a short-term impact. Typical established construction BMPs should be used to minimize sediment runoff. Once completed, stream bank stabilization and riparian restoration would restore the natural functioning of the river channel. This is considered a beneficial impact.

### Manure Management/Grazing Management

This implementation alternative may result in soil excavation during fencing, which could impact siltation or deposition of sand in the river. Erosion of soils may occur as a short-term impact. Typical established construction BMPs should be used to minimize sediment runoff. When the alternative is completed, fencing would prevent the movement of animals in riparian areas and restore the natural functioning of the river channel. This is considered a beneficial impact.

### Anaerobic Biodigester Systems/OWTS Upgrades

Anaerobic biodigester systems would not result in changes in siltation, deposition or erosion which may modify the channel of a river or stream.

### Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would not result in changes in siltation, deposition, or erosion which may modify the channel of a river or stream or the bed of the ocean.

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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**1. Earth. g.** Will the proposal result in exposure of people or property to geologic hazards, such as earthquakes, landslides, mudslides, ground failure, or similar hazards?

Answer: No Impact

Southern California, including the Ventura River watershed area, is recognized as a seismically active area. Reasonably well-established historical records of earthquakes in California have been compiled for approximately the past 200 years. The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, nor is it currently identified by the regulatory community as being located within zones of either primary or secondary co-seismic surface deformation (e.g., pressure ridges, escarpments, fissures). Thus, the site is not expected to experience primary surface fault rupture or related ground deformation. Known major faults located within Ventura River watershed area include the Mission Ridge Fault, Arroyo Parida Fault, Santa Ana Fault, Red Mountain Fault, Padre Juan Fault, Lion Mountain Fault, Ventura Fault, Pitas Point Fault, San Cayetano Fault, Pine Mountain Thrust Fault, and Big Pine Fault.

It is not reasonably foreseeable that responsible parties would choose to comply with the TMDL through structural and non-structural means in areas where doing so would result in exposure of

people or property to geologic hazards including earthquakes, landslides, mudslides, ground failure, or similar hazards.

- 2. Air. a.** Will the proposal result in substantial air emissions or deterioration of ambient air quality?

Answer: Potentially Significant Impact

Local air quality management in the Ventura watershed is provided by the California Air Resources Board (CARB) through the Ventura County Air Pollution Control District (VCAPCD). The CARB is responsible for controlling mobile emission sources statewide, while the VCAPCD is responsible for enforcing the standards that apply to stationary sources in Ventura County. The VCAPCD is currently designated as nonattainment for the State particulate and ozone standards.

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

#### Improvement of NDN Processes at WWTP/Urban Runoff and Agriculture BMPs

Short term increases in traffic during the construction and installation of WWTP upgrades and implementation BMPs, and long-term increases in traffic caused by ongoing maintenance of these devices (e.g., delivery of materials) are potential sources of increased air pollutant emissions, including greenhouse gas emissions. Construction activities could also potentially cause re-suspension of sediments. However, emission levels for potentially emitted pollutants are expected to be below the VCAPD Air Quality Significance thresholds considering the scale of the Nutrients TMDL. This number of vehicle trips would not cause significant emissions over baseline conditions in the watershed. In the unlikely event that daily emissions exceed significance thresholds, construction and maintenance for different devices can be conducted on different days to reduce emissions rates. The 6-year phased implementation schedule allows for construction projects to be spread out over time. Detailed analysis can only be done at project level.

Mitigation measures for increased air emissions due to increased vehicle trips or for construction equipment due to the installation of BMPs may include, but are not limited to, the following: 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, and 4) proper maintenance of vehicles so they operate cleanly and efficiently. Mitigation measures for re-suspension of sediments caused by construction 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.

#### Anaerobic Biodigester Systems

Short term increases in traffic during the construction and installation of these implementation BMPs are potential sources of increased air pollutant emissions, including greenhouse gas emissions. These impacts are temporary and can be mitigated. Long term increases in truck trips from delivering manure to the biodigester can be mitigated as well. Mitigation measures for increased air emissions due to increased vehicle trips or for heavy equipment may include, but are



not limited to, the following: 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, and 4) proper maintenance of vehicles and equipment so they operate cleanly and efficiently.

Manure emits large amounts of methane. Biodigester systems would capture and combust methane, which is a greenhouse gas that contributes to global warming. This is considered a positive impact.

#### Watershed-wide Implementation/Manure Management/Grazing Management/Non-structural BMPs/OWTS Upgrades

These implementation measures are not expected to have significant impact on air quality.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

#### **2. Air. b. Will the proposal result in creation of objectionable odors?**

Answer: Potentially Significant Impact

#### Improvement of NDN Processes in WWTP

The Ojai WWTP is located adjacent to urban and residential land uses that could be impacted from odors at the WWTP. Construction and improvement of NDN treatment may result in objectionable odors in the short-term due to exhaust from construction equipment and vehicles. Mitigation measures could include the use of vehicles with lower-emission engines and use of soot reduction traps or diesel particulate filters. Operation of the upgraded NDN processes are not expected to cause worse odors than already existing at the treatment plant.

#### Urban Runoff and Agriculture BMPs

Construction and installation of these implementation alternatives may result in objectionable odors in the short-term due to exhaust from construction equipment and vehicles. Implementation BMPs may also be a source of objectionable odors if they allow for water stagnation or collection of water with sulfur-containing compounds. Storm water runoff is not likely to contain sulfur containing compounds, but stagnant water could create objectionable odors. For example, improper design or maintenance of Vegetated Swales 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.

Mitigation measures to eliminate odors caused by stagnation could include proper BMP design to eliminate standing water with covers, aeration, filters, barriers, and/or odor suppressing chemical additives. BMPs should be inspected regularly to ensure that systems are not clogged, pooling water, or odorous. During maintenance, odorous sources should be uncovered for as short of a time period as possible. Systems should be designed to minimize stagnation of water and installed in such a way so as to increase the distance to sensitive receptors in the event of any stagnation. To the extent possible, BMPs could be designed to minimize stagnation of water (e.g., allow for complete drainage within 48 hours) and installed to increase the distance to sensitive receptors in the event of any stagnation.

#### Grazing Management

These implementation alternatives would not result in creation of objectionable odors. No impact is expected to occur.

#### Manure Management

The collection, transportation and storage of manure can create objectionable odors. However, improved manure management such as proper composting would reduce odors. Manure management facilities such as manure bunkers should be designed to minimize odor and installed in such a way so as to increase the distance to sensitive receptors.

#### Anaerobic Biodigester Systems

Construction and installation of these implementation alternatives may result in objectionable odors in the short-term due to exhaust from construction equipment and vehicles. However, the biodigester would reduce objectionable odors from decomposing manure significantly. This is considered a beneficial impact.

#### OWTS Upgrades

Maintenance and replacement of septic systems could create objectionable odors. During maintenance, odorous sources should be uncovered for as short of a time period as possible. The discharge of wastewater to land has the potential to create objectionable odors due to surfacing or overflow of sewage. Inspection and upgrades to OWTS would lessen this potentially existing impact.

#### Watershed-wide Implementation/Grazing Management/Non-structural BMPs

These implementation measures are not expected to have significant impact on air quality.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**2. Air. c.** Will the proposal result in alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?

Answer: Less Than Significant Impact

It is not anticipated that reasonably foreseeable methods of compliance will result in an impact to air in the alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally. Installation, construction, and maintenance of various BMPs and treatment systems could cause an increase in air pollutant emissions, including greenhouse gas emissions, but these activities would be the same as typical construction and maintenance activities in urbanized areas, such as ordinary road and infrastructure maintenance and building activities, and would not be significant to cause climate change.

In 2006, California passed AB 32, the Global Warming Solutions Act of 2006, which set the 2020 greenhouse gas emissions reduction goal into law. In December 2007, CARB approved the 2020 emission limit of 427 million metric tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e) of greenhouse gases. The 2020 target of 427 million metric tons of CO<sub>2</sub>e requires the reduction of 169 million metric tons of CO<sub>2</sub>e, or approximately 30 percent, from the State's projected 2020 emissions of 596 million metric tons of CO<sub>2</sub>e.

Also in December 2007, CARB adopted regulations which require mandatory reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. Currently, the draft regulation language identifies major facilities as those that generate more than 25,000 metric tons/year of CO<sub>2</sub>e. Cement plants, oil refineries, fossil-fueled electric-generating facilities/providers, cogeneration facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 metric tons/year CO<sub>2</sub>e, make up 94 percent of the point source CO<sub>2</sub>e emissions in California. In June, 2008, CARB published its Climate Change Scoping Plan. The Proposed Scoping Plan proposes a comprehensive set of actions designed to reduce overall carbon emissions in California.

Several of the reasonable foreseeable methods of compliance will require the production of energy. The production of the energy will create greenhouse gases that might contribute to climate changes. However, biodigester systems can capture and combust methane. This will reduce a greenhouse gas - methane that contributes to global warming. In addition, by off-setting energy that would otherwise be derived from fossil fuels, biogas recovery and use can help reduce overall quantities of carbon dioxide, another critical greenhouse gas. These are considered positive impacts.

When compared to the estimated greenhouse gas reduction goal of 174 million tons CO<sub>2</sub>e by 2020 (and in comparison to major facilities that are required to report greenhouse gas emissions (25,000 metric tons of CO<sub>2</sub>e/year)), the relative contributions of the implementation program are small and would not conflict with the state's ability to meet the AB32 goals.

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

**3. Water. a.** Will the proposal result in changes in currents, or the course of direction or water movements, in either marine or fresh waters?

Answer: Potentially Significant Impact

Improvement of NDN Processes at WWTP

Improvement of NDN processes would not result in changes in currents, or the course of direction or water movements, in either marine or fresh waters. No impact is anticipated. No mitigation measures are required.

Urban Runoff and Agriculture BMPs

These implementation alternatives may impede or slow overland flow if not properly designed and maintained. Devices should be designed to allow adequate drainage of water and maintained to remove clogged material to mitigate this impact. Reductions in dry- and wet-weather flow could have potential negative impacts on minimum flows required to support aquatic life in the river. Potential impacts to dry-weather flow should be considered at the project level. Mitigation measures to maintain minimal flow to support habitat related beneficial uses should be considered if reductions in flow from storm drains is such that minimum flows are so reduced as to not support aquatic life. Minimum flow levels can be reviewed and approved by the California Department of Fish and Game (CDFG) and United States Fish and Wild Life Service (USFWS).

Watershed-wide Implementation

Riparian buffers are designed to trap and filter sediments, nutrients, and other chemicals from surface runoff and shallow groundwater. This would reduce dry and/or wet-weather flows to the river. The effects may result in changes in currents, or the course of direction or water movements, in either marine or fresh waters. Adequate modeling and planning can help mitigate any possible negative impacts.

Manure Management/Grazing Management/Anaerobic Biodigester Systems/OWTS Upgrades

These implementation alternatives would not result in changes in currents, or the course of direction or water movements, in either marine or fresh waters. No impact is anticipated. No mitigation measures are required.

Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would not result in changes in currents, or the course of direction or water movements, in marine or fresh waters. No impact is anticipated. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These

parties 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)).

**3. Water. b.** Will the proposal result in changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?

Answer: Potentially Significant Impact

#### Improvement of NDN Processes at WWTP

Improvement of NDN processes would not result in changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff. No impact is anticipated. No mitigation measures are required.

#### Urban Runoff and Agriculture BMPs

These implementation measures collect and/or inhibit runoff, which would likely alter drainage patterns, and also decrease the rate and amount of surface water runoff to the river. For example, vegetated swales would change drainage patterns by increasing absorption rates, which would reduce the amount of surface runoff to the receiving waters. Adequate modeling and planning can help mitigate any possible negative impacts.

#### Watershed-wide Implementation

These implementation measures inhibit runoff, which would likely alter drainage patterns, and also decrease the rate and amount of surface water runoff to the river. For example, restoring riparian vegetation would change drainage patterns by increasing absorption rates, which would reduce the amount of surface runoff to the receiving waters. Adequate modeling and planning can help mitigate any possible negative impacts.

#### Manure Management/Grazing Management/Anaerobic Biodigester Systems/OWTS Upgrades

These implementation measures would not result in changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff. No impact is anticipated. No mitigation measures are required.

#### Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly, and would not result in changes in the drainage patterns, or the rate and amount of surface water runoff. No impact is anticipated. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**3. Water. c.** Will the proposal result in alterations to the course of flow of flood waters?

Answer: Potentially Significant Impact

Improvement of NDN Processes at WWTP

Improvement of NDN processes would not result in altering the course of flow of flood waters because these would not introduce any physical change to the river channel that could impact the flow of flood waters. No mitigation measures are required.

Urban Runoff and Agriculture BMPs

These implementation measures could alter the volume of flood waters by diverting a portion of the flood waters, but this is unlikely to alter the course of flood waters. Potential effects can be mitigated through proper design (including flood water bypass systems), sizing, and maintenance of these types of vegetated treatment and infiltration systems. Installation of these implementation measures could result in positive environmental benefits like flood mitigation and upstream flow volume reduction.

Watershed-wide Implementation

These implementation measures would likely result in altering the course of flow of flood waters because buffer strips and riparian restoration would slow flood waters, thus the reducing force and destruction of floods. This is considered a positive impact.

Manure Management/Grazing Management/Anaerobic Biodigester Systems/OWTS Upgrades

Implementation of these alternatives would not result in altering the course of flow of flood waters because these would not introduce any physical change to the river channel that could impact the flow of flood waters. No mitigation measures are required.

Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would not result in alterations to the course of flow of flood waters. No impact is anticipated. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**3. Water. d.** Will the proposal result in change in the amount of surface water in any water body?

Answer: Potentially Significant Impact

Improvement of NDN Processes at WWTP

Improvement of NDN processes would not result in a change in the amount of surface water in any water body. No mitigation measures are required.

Urban Runoff and Agriculture BMPs

Runoff may be retained and/or diverted to vegetated swales or wetland areas. Water that is retained or diverted would not flow into the Ventura River and its tributaries. Reduction in the amount of water in the stream channels may affect the ecology of the streams; these affects can be mitigated as discussed below in the answers to questions 4 and 5 on Plant Life and Animal Life.

Watershed-wide Implementation

These implementation alternatives are designed to trap and filter sediments, nutrients, and other chemicals from surface runoff and shallow groundwater. This would reduce flows to the river. The affects may result in changes in the amount of surface water in the water body. Adequate modeling and planning can help mitigate any possible negative impacts. Mitigation measures to maintain minimal flow to support habitat related beneficial uses should be reviewed and approved by CDFG and USFWS.

Manure Management/Grazing Management/Anaerobic Biodigester Systems

These implementation alternatives would not result in changes in the amount of surface water in a water body. No impact is anticipated. No mitigation measures are required.

OWTS Upgrades

Connection of properties that currently rely on septic systems to the sewer system could potentially have an effect on the amount of surface water in a water body by increasing the amount of effluent discharged from the WWTP. There would be no net gain in the amount of water discharged to the watershed, as OWTS currently discharge the same amount to groundwater that they would discharge to the sewer. The water balance would remain the same, but there could be a shifting towards more surface flow in the lower watershed. This impact is not analyzed further because it would be speculative to consider how many OWTS would connect to the sewer collection system. The potential environmental impacts associated with the expansion of the sewage collection system or the WWTP would require its own environmental assessment.

### Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly and would not result in a change in the amount of surface water in any water body.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**3. Water. e.** Will the proposal result in discharge to surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?

Answer: Potentially Significant Impact

### Improvement of NDN Processes in WWTP

Improvement of NDN processes would result in the removal of nutrients and the alternation of surface water quality. This is considered a positive impact. No mitigation measures are required.

### Urban Runoff and Agriculture BMPs

These implementation measures would reduce turbidity and increase dissolved oxygen, because these BMPs would remove sediment and bioavailable oxygen demanding substances from the surface water. Reduced turbidity and increased dissolved oxygen are beneficial to the environment. No mitigation measures are required.

### Watershed-wide Implementation

These implementation alternatives are designed to trap and filter sediments, nutrients, and other chemicals from surface runoff and shallow groundwater. This would improve surface water quality. No mitigation measures are required.

### Manure Management/Grazing Management/Anaerobic Biodigester systems

These implementation measures would minimize animal manure and nutrient discharges to surface water. Surface water quality would be improved. This is considered a positive impact. No mitigation measures are required.

### Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly, would not result in discharge to surface waters, and would result in the improvement



of surface water quality. This is considered a positive impact. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**3. Water. f.** Will the proposal result in alteration of the direction or rate of flow of ground waters?

Answer: Potentially Significant Impact

Improvement of NDN Processes at WWTP

Installation of these BMPs would not result in alteration of the direction or rate of flow of ground waters. No mitigation measures are required.

Urban Runoff and Agriculture BMPs

Over the long term, infiltration of storm water runoff via vegetated treatment and infiltration systems such as vegetated swales and wetlands could alter the direction or rate of flow of groundwater. Infiltration could alter groundwater movement and cause a change of hydrology by redistributing areas of recharge. If infiltration devices are not properly sited and constructed, ground water quality could be adversely impacted. The potential for adverse impacts may be mitigated through proper design and siting of infiltration devices, pretreatment prior to infiltration, and groundwater monitoring. Proper design and siting includes providing adequate groundwater separation with soils suitable for infiltration, and complying with any applicable groundwater permitting requirements.

Watershed-wide Implementation

These implementation measures may result in alteration of the direction or rate of flow of ground waters. Once completed, stream bank stabilization and riparian restoration would restore the natural functioning of the river channel.

Manure Management/Grazing Management/Anaerobic Biodigester Systems

These implementation measures would not result in alteration of the direction or rate of flow of ground waters. No mitigation measures are required.

### Non-Structural BMPs

Non-structural BMPs would not result in an alteration of the direction or rate of flow of ground waters. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**3. Water. g.** Change in the quantity or quality of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

Answer: Potentially Significant Impact

### Improvement of NDN Processes at WWTP

Improvement of NDN processes would not result in change in the quantity or quality of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations. No mitigation measures are required.

### Urban Runoff and Agriculture BMPs

Vegetated swales and wetlands involve the infiltration of storm water runoff into the ground. If infiltration storm water BMPs are improperly designed, sited, and constructed, ground water quality could be adversely impacted. For instance, flow above designed capacity of biofiltration devices may lead to groundwater contamination from untreated storm water. Infiltration of storm water could mobilize groundwater contaminants.

The potential for adverse impacts may be mitigated through proper design and siting of infiltration devices, pretreatment prior to infiltration, and groundwater monitoring. Proper design and siting includes providing adequate groundwater separation with soils suitable for infiltration, and complying with any applicable groundwater permitting requirements. It is recommended that media filters or other treatment devices be used instead of infiltration where soils or groundwater contamination are a concern (CASQA, 2003b). However, where separation to groundwater is adequate, there is a low probability of groundwater contamination by infiltrated runoff because the soils attenuate pollutants and soil amendments can increase nutrient removal (CASQA, 2003b).

### Watershed-wide Implementation

These implementation measures may result in change in the quantity or quality of ground waters. Vegetation allows storm water to infiltrate soils and thus reduce runoff and increase ground water flows. Once completed, stream bank stabilization and riparian restoration would restore the natural functioning of the river channel.

### Manure Management/Grazing Management/Anaerobic Biodigester

These implementation measures would not result in a change in the quantity or quality of ground waters. No mitigation measures are required.

### Non-Structural BMPs

Non-structural BMPs would not result in a change in the quantity or quality of ground waters. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**3. Water. h.** Will the proposal result in substantial reduction in the amount of water otherwise available for public water supplies?

Answer: No Impact

The potential implementation alternatives will not reduce public water supplies. Implementation of the TMDL would result in an increase in the amount of water available for public water supplies if compliance with the TMDL is achieved through significant infiltration.

**3. Water. i.** Will the proposal result in exposure of people or property to water related hazards such as flooding or tidal waves?

Answer: No Impact

These implementation measures would not result in exposure of people or property to water related hazards such as flooding or tidal waves.

**4. Plant Life. a.** Will the proposal result in change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, microflora and aquatic plants)?

Answer: Potentially Significant Impact

#### Improvement of NDN Processes at WWTP

Improvement of NDN processes would not result in a change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, microflora and aquatic plants). No mitigation measures are required.

#### Urban Runoff and Agriculture BMPs

Vegetated swales and wetlands will use a variety of vegetation types. Vegetation is required to cover the whole width of the swale, be capable of withstanding design flows and be of sufficient density to prevent preferred flow paths and scour of deposited sediments. Vegetated swales and wetlands may introduce new species of plants into the area. This could result in a change of the diversity of species, or number of any species of plants. This impact can be avoided by planting swales and wetlands with native plants.

BMPs could result in reduced flows, particularly during dry weather, and may adversely impact downstream plant life. However, the elimination of nuisance flows would return the stream bed's dry-weather flows to a more natural, pre-development condition. This in turn would facilitate the return of the stream's plant community to a more natural, pre-development condition and could impede the propagation of water-loving nonnative and invasive plant species. Mitigation measures to maintain minimal flow to support native plants should be reviewed and approved by the CDFG and USFWS.

BMPs could pose an impact to plant life in terms of diversity of species, number of species, or reduce the number unique, rare or endangered species if facilities are located in critical habitat. BMPs may be siting away from this critical habitat. It is not reasonable foreseeable for responsible jurisdictions to construct and site devices in such a manner as to adversely impact species diversity. Proper timing may need to be exercised to avoid construction during critical periods of plant and animal development. Consultation with agencies including the CDFG and 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. Focused protocol 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 CDFG 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.

Alum injections systems inject liquid aluminum sulfate prior to entering the settling pond. Impacts causing a change in the diversity of species, or number of any species of plants would

most likely occur if facilities not are properly designed and maintained. Alum is acidic by nature. Excess alum, resulting in pH of lower than 6.0, may adversely impact plant and animals life. Proper design, inspection, and maintenance can be employed to mitigate potential impacts to plant and animal life associated with alum injection systems. Alum injection can be installed with flow-weighted sensors to regulate the amount of alum injection along with proportioned buffering agents to maintain the pH levels. Installation of a separate pump-out facility may reduce the likelihood and floc re-suspension, transport, and to ensure the timely removal of the floc.

#### Watershed-wide Implementation

Planting trees and vegetation as part of riparian buffers and stabilization activities may introduce new species of plants into the area. This could result in a change of the diversity of species, or the number of species of plants. This impact could be avoided by using native plant species.

#### Manure Management/Grazing Management/Anaerobic Biodigester Systems/Nonstructural BMPs

Installation of these BMPs would not result in change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, microflora and aquatic plants). No mitigation measures are required.

#### OWTS Upgrades

Connection of properties that currently rely on septic systems to the sewer system could potentially have an effect on the amount of surface water in a water body, and thus the diversity or number of plant species, by increasing the amount of effluent discharged from the WWTP. The overall water balance of the watershed would remain the same, but there could be a shifting towards more surface flow in the lower watershed. This impact is not analyzed further because it would be speculative to consider how many OWTS would connect to the sewer collection system. The potential environmental impacts associated with the expansion of the sewage collection system or the WWTP would require its own environmental assessment.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**4. Plant life. b.** Will the proposal result in reduction of the numbers of any unique, rare or endangered species of plants?

Answer: Potentially Significant Impact

#### Improvement of NDN Processes at WWTP

These implementation measures located at the WWTP would not result in reduction of the numbers of any unique, rare or endangered species of plants. No impact is anticipated. No mitigation measures are required.

#### Urban Runoff and Agriculture BMPs

See response to Response to 4. Plant life. a.

#### Manure Management/Grazing Management/Anaerobic Biodigester Systems/Nonstructural BMPs

Installation of these BMPs would not result in reduction of the numbers of any unique, rare or endangered species of plants. No impact is anticipated. No mitigation measures are required.

#### OWTS Upgrades

See response to Response to 4. Plant life. a.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**4. Plant life. c.** Will the proposal result in introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?

Answer: Potentially Significant Impact

#### Improvement of NDN Processes at WWTP

Implementation measures located at the WWTP would not result in introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species. No impact is anticipated. No mitigation measures are required.

#### Urban Runoff and Agriculture BMPs

For vegetated swales and constructed wetlands that may include the use of plants, such as vegetated swales, new species of plants may possibly be introduced into the area. However, in cases where plants or landscaping is incorporated into the specific project design, the possibility of disruption of resident native species could be avoided or minimized by using only plants native to the area. The use of exotic invasive species or other plants listed in the California Invasive Plant Inventory (Cal-IPC, 2006) should be prohibited.

#### Watershed-wide Implementation

Planting trees and vegetation as part of riparian buffers and stabilization activities may introduce new species of plants into the area. This could result in a change of the diversity of species, or the number of species of plants. This impact could be avoided by using native plant species. The use of exotic invasive species or other plants listed in the California Invasive Plant Inventory (Cal-IPC, 2006) should be prohibited.

The Ventura River watershed contains *Arundo donax* and other invasive non-native plants. Riparian restoration activities could potentially remove invasive species, which is a positive impact.

#### Manure Management/Grazing Management/Anaerobic Biodigester Systems/ Non-Structural BMPs/OWTS Upgrades

The implementation alternatives would not result in introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species. No impact is anticipated. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

#### **4. Plant life. d.** Will the proposal result in reduction in acreage of any agricultural crop?

Answer: Potentially Significant Impact

#### Urban Runoff and Agriculture BMPs

Agriculture BMPs, if directly implemented on farm land, may result in reduction in acreage of agricultural crops. To the extent possible, BMPs such as filter strips, should be implemented in a way that does not result in reduction in acreage of any agricultural crop. Many of these strategies may actually improve agricultural resources by reducing the loss of topsoil or improving soil quality.

#### Improvement of NDN Processes at WWTP/Watershed-wide Implementation/Manure Management/Grazing Management/Anaerobic Biodigester Systems/ Non-Structural BMPs/OWTS Upgrades

These implementation alternatives would have no impact on the acreage of any agricultural crop.

**5. Animal Life. a.** Will the proposal result in change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects or microfauna)?

Answer: Potentially Significant Impact

Depending on the implementation method chosen, it is possible that direct or indirect impact to animal life may occur. Responsible parties should consult with the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) prior to implementing compliance strategies that pose a potentially significant impact to animal life for both protected and non-protected species. Responsible parties may also choose to implement compliance strategies that incur less impact on animal life. Furthermore, the Ventura Watershed is a critical habitat for many special status bird species and birds protected by the Migratory Bird Treaty Act. In addition, the Ventura River and its tributaries are home to the Southern California Steelhead. Appropriate measures such as bird, habitat, and nesting surveys for the protection of birds and avoiding critical habitat for aquatic life or temporary relocation of aquatic species during implementation should be taken in conjunction with all construction, operation and maintenance activities. Mitigation measures should ensure the least disturbance possible. The long term benefits to animal life by implementation of the TMDL outweigh short term negative impacts.

#### Improvement of NDN Processes in WWTP

Improvement of NDN Processes at the WWTP would not result in change in the diversity of species, or numbers of any species of animals. No impact is anticipated. No mitigation measures are required.

#### Urban Runoff and Agriculture BMPs

Vegetated swales, wetlands, and other infiltration/filtration-type BMPs could result in reduced flows, particularly during dry weather, and may adversely impact downstream animal life. However, the elimination of nuisance flows would return the stream bed's dry-weather flows to a more natural, pre-development condition. Mitigation measures to maintain minimal flow to support animal life and critical habitat for Steelhead and other species should be reviewed and approved by the CDFG and USFWS.

BMPs could pose an impact to animal life in terms the diversity of species, or numbers of any species of animals if facilities are located in critical habitat. BMPs may be siting away from this critical habitat. It is not reasonable foreseeable for responsible jurisdictions to construct and site devices in such a manner as to adversely impact species diversity. Proper timing may need to be exercised to avoid construction during critical periods of animal development. Consultation with agencies including the CDFG and USFWS, having jurisdiction over identified resources would occur to identify specific mitigation measures such as avoiding critical habitat areas and by preserving them prior to, during, and after installation of facilities

Alum injections systems inject liquid aluminum sulfate prior to entering the settling pond. Impacts causing a change in the diversity of species, or numbers of any species of animals would most likely occur if facilities not are properly designed and maintained. Alum is acidic by nature. Excess alum, resulting in pH of lower than 6.0, may adversely impact plant and animal life. Excess dissolved aluminum may also adversely impact animal species. Pathogens may also remain viable in the floc layer. Proper design, inspection, and maintenance can be employed to



mitigate potential impacts to plant and animal life associated alum injection systems. Alum injection can be installed with flow weighted sensors to regulate the amount of alum injection along with proportioned buffering agents to maintain the pH levels. Installation of a separate pump-out facility may reduce the likelihood and floc res-uspension, transport, and to ensure the timely removal of the floc.

#### Watershed-wide implementation

Riparian restoration activities could potentially disturb animal habitat during construction, which could result in a change in the diversity of species, or numbers of any species of animals. Mitigation measures should ensure the least disturbance possible during construction, Bird, habitat, and nesting surveys should be conducted for the protection of birds. Critical habitat for aquatic life should be avoided where possible or aquatic species should be temporarily relocated during restoration activities.

#### Manure Management/Grazing Management/Anaerobic Biodigester Systems/Non-Structural BMPs/OWTS Upgrades

The implementation alternatives would not result in change in the diversity of species, or numbers of any species of animals. No impact is anticipated. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**5. Animal Life. b.** Will the proposal result in reduction of the numbers of any unique, rare or endangered species of animals?

Answer: Potentially Significant Impact

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

The following mitigation measures should be implemented to reduce or avoid potential project-level impacts to unique, rare or endangered species of animals. Mitigation measures, however, could be implemented to ensure that special-status animals are not negatively impacted, nor their habitats diminished. For example, when the specific projects are developed and sites identified, a focus protocol animal survey and/or a search of the California Natural Diversity Database should be performed to confirm that any potentially special-status animal species in the site area are properly identified and protected as necessary.

If special-status animal 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.

#### Improvement of NDN Processes in WWTP

Improvement of NDN processed at the WWTP would not result in reduction of the numbers of any unique, rare or endangered species of animals. No impact is anticipated. No mitigation measures are required.

#### Urban and Agriculture BMPs

Vegetated swales and constructed wetlands could increase the diversity or number of animal species, by creating habitat for those species. The installation of various BMPs may result in a temporary impact on the numbers of any unique, rare or endangered species of animals if they are found at the site of the installation. Proper project siting, and planning, discussed, above, can help mitigate impacts to the animal life. BMPs could impact in-stream habitats depending on flows associated with runoff. These changes may result in reduction of the numbers of any unique, rare or endangered species of animals. Proper project modeling, siting, and planning as discussed above can help mitigate impacts to the animal life. However reduction of nuisance flows may help return the flow to a more natural state.

See also response to 4. Animal Life.a.

#### Watershed-wide Implementation

If special-status species are present during planting activities such as ground disturbance and construction associated with the potential projects, direct impacts to special-status species could result in the reduction of the numbers of any unique, rare or endangered species of animals. However, riparian habitat would provide suitable and structurally diverse habitat for many species of wildlife including endangered species of animals that inhabit in the Ventura River

Watershed. This is considered a positive impact. Proper project siting and planning can help mitigate impacts to the animal life.

Manure Management/Grazing Management/Anaerobic Biodigester Systems/OWTS Upgrades

Implementation of these alternatives would not result in reduction of the numbers of any unique, rare or endangered species of animals. No impact is anticipated. No mitigation measures are required.

Non-Structural BMPs

Non-structural BMPs would involve no change to the physical environment either directly or indirectly, and would have no impact that results in the reduction of the numbers of any unique, rare or endangered species of animals.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**5. Animal Life. c.** Will the proposal result in introduction of new species of animals into an area, or in a barrier to the migration or movement of animals?

Answer: Potentially Significant Impact

Urban and Agriculture BMPs/ Watershed-wide Implementation/ Anaerobic Biodigester Systems

It is not expected that implementation of various alternatives will result in the introduction of a new animal species

A travel route is generally described as a landscape feature (such as a ridgeline, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g. water, food, den sites). Wildlife corridors are generally an area of habitat, usually linear in nature, which connect two or more habitat patches that would otherwise be fragmented or isolated from one another. It is not likely that implementation alternatives would be constructed in areas such as these because most potential projects would be established in previously developed areas. Projects such as riparian forest buffer strips could improve travel routes or wildlife corridors.

However, various implementation alternatives may potentially impact wildlife crossings. A wildlife crossing is a small narrow area relatively short and constricted, which allows wildlife to pass under or through obstacles that would otherwise hinder movement. Crossings are typically

manmade and include culverts, underpasses, and drainage pipes to provide access across or under roads, highways, or other physical obstacles.

Construction activities may impact migratory avian species. These avian species may use portions of potential project sites 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 CDFG and USFWS. The MBTA protects over 800 species including, geese, ducks, shorebirds, raptors, songbirds, and many other relatively common species.

If projects 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 animals is less than significant. Any site-specific wildlife crossings should be evaluated in consultation with CDFG. If a wildlife crossing would be significantly impacted in an adverse manner, then the design of the project should include a new wildlife crossing in the same general location. 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 would 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.

Alternatively, to avoid impacts, the parties implementing the TMDL may begin construction after the previous breeding season for covered avian species and before the next breeding season begins. If a protected avian species was to establish an active nest after construction was initiated and outside of the typical breeding season (February – August), the project sponsor, would be required to establish a buffer of 200 feet or as required by USFWS between the construction activities and the nest site.

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 assuming they are foreseeable, they would require a project-level analysis and mitigation plan.

Finally, to the extent feasible, responsible parties should endeavor to avoid compliance measures that could result in significant barriers to the beneficial migration or movement of animals, and instead opt for such measures as non-structural BMPs in sensitive areas.

#### Improvement of NDN Processes at WWTP/Manure Management/Grazing Management/ /OWTS Upgrades/Non-Structural BMPs

Implementation of these alternatives would not result introduction of new species of animals into an area, or in a barrier to the migration or movement of animals. No impact is anticipated. No mitigation measures are required.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**5. Animal Life. d.** Will the proposal result in deterioration to existing fish or wildlife habitat?

Answer: Potentially Significant Impact

Improvement of NDN Processes at WWTP

Improvement of NDN processed at the WWTP would not result in deterioration to existing fish or wildlife habitat. No impact is anticipated. No mitigation measures are required.

Urban Runoff and Agriculture BMPs

Implementation of the TMDL will considerably improve fish and wildlife habitat by removing nutrients and other pollutants from the Ventura River watershed. BMPs that increase infiltration rates of runoff may potentially change fish and wildlife habitat by changing the flow in the channels. Potential impacts to dry-weather flow should be considered at the project level. Mitigation measures to maintain minimal flow to support habitat related beneficial uses should be reviewed and approved by the CDFG and USFWS.

Watershed-wide Implementation

Planting activities associated with riparian buffers and streambank stabilization such as ground disturbance and construction could result in temporary deterioration to existing fish or wildlife habitat. However, upon completion of projects, fish and wildlife habitat would be improved. This is considered a positive impact.

Manure Management/Grazing Management/Anaerobic Biodigester Systems/OWTS Upgrades/Non-Structural BMPs

Implementation of these alternatives would not result in deterioration to existing fish or wildlife habitat. No impact is anticipated.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**6. Noise. a.** Will the proposal result in increases in existing noise levels?

Answer: Potentially Significant Impact

Urban Runoff BMPs

Installation of structural BMPs would potentially involve removal of asphalt and concrete from streets and sidewalks, excavation and shoring, installation of reinforced concrete pipe, installation of the unit, and repaving of the streets and sidewalks. It is anticipated that installation activities would occur in limited, discrete, and discontinuous areas over a short duration. No major construction activities are anticipated. It is anticipated that excavation, for the purpose of installation, and repaving would result in the greatest increase in noise levels during the period of installation.

Contractors and equipment manufacturers have been addressing noise problems for many years, and through design improvements, technological advances, and a better understanding of how to minimize exposures to noise, noise effects can be minimized. 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 installation in a manner to minimize noise and vibration. Use installation 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 shall be used and relocated, as practicable, to protect sensitive receptors against excessive noise from installation activities. Consider mitigation measures such as partial enclosures around continuously operating equipment or temporary barriers along installation boundaries.
- The installation contractor should be required by contract specification to comply with all local noise and vibration ordinances and obtain all necessary permits and variances.

Increases in ambient noise levels are expected to be less than significant once mitigation measures have been properly applied.

#### Improvement of NDN Processes in WWTP

Improvement of NDN processes at the WWTP 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 these facilities could increase noise levels in areas surrounding these facilities. However, the noise from these facilities is not significant in comparison with the overall noise from other facilities in the WWTP. Therefore, this noise impact would be less than significant.

#### Agriculture BMPs/OWTS Upgrades

No major construction activities are anticipated for the installation of agriculture BMPs or OWTS upgrades. To the extent that there are increases in ambient noise levels from construction activities, they can be mitigated with the measures described above.

#### Anaerobic Biodigester Systems

Construction of an anaerobic biodigester system could result in temporary increases in existing noise levels. The operation of these facilities could also increase noise levels in areas surrounding these facilities. Mitigation measures include the use of newer equipment with improved noise muffling, use of installation methods or equipment that will provide the lowest level of noise and ground vibration impact, turning off idling equipment, and use of noise barriers. County noise ordinances should be reviewed to ensure compliance prior the initiation of the project.

#### Manure Management/Grazing Management/Watershed-wide implementation

Implementation of these alternatives would not result in increased noise. No impact is anticipated.

### Non-Structural BMPs

Non-structural BMPs could result in increases in existing noise levels due to increased traffic from maintenance vehicles which may increase the noise level temporarily as the vehicles pass through an area. However, the increase in noise levels would be no greater than typical infrastructure maintenance activities currently performed in the 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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

#### **6. Noise. b.** Will the proposal result in exposure of people to severe noise levels?

Answer: Potentially Significant Impact

There will be noise associated with some of the implementation alternatives (see 6. Noise. a). Personnel conducting the operation and/or working in the general area may be exposed to severe noise levels. This would require that all personnel be required to wear ear protection in order to mitigate this exposure. The noise mitigation measures have been previously described in response to 6. Noise. a.

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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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. Light and Glare.** Will the proposal produce new light or glare?

Answer: Potentially Significant Impact

### Improvement of NDN Processes in WWTP/Urban Runoff / Anaerobic Biodigester Systems

The construction and installation of these alternatives could potentially be performed during evening or night time hours. If this scenario were to occur, night time lighting would temporarily



be required to perform the work. Also, lighting could possibly be used to increase safety around work areas. A lighting plan should be prepared to include mitigation measures. Mitigation measures can include shielding on all light fixtures and limiting light trespass and glare through the use of directional lighting methods. Other potential mitigation measures may include the use of screening and low-impact lighting, performing construction during daylight hours, or designing security measures for installed devices that do not require night lighting. 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.

Agriculture BMPs/OWTS Upgrades/ Manure Management/Grazing Management/Watershed-wide implementation

Implementation of these alternatives would not produce new light or glare. No impact is anticipated.

Non-Structural BMPs

Non-structural BMPs will not produce new light or glare because none of the BMPs would introduce any physical effects that could impact light and glare.

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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**8. Land Use. a.** Will the proposal result in substantial alteration of the present or planned land use of an area?

Answer: No Impact

It is not anticipated that reasonably foreseeable methods of compliance of implementation alternatives will result in substantial alteration of the present or planned land use of an area; they will not physically divide an established community, nor will they conflict with any land use plan.

To the extent that there could be land use impacts at a specific location, these potential land use conflicts are best addressed at the project level. Since the Regional Board cannot specify the manner of compliance with the TMDL, the Regional Board can not specify the exact location of structural treatment devices. The various parties that might implement projects will need to identify local land use plans as part of a project-level analysis to ensure that projects comply with permitted use regulations and are consistent with land use plans, general plans, specific plans, conditional uses, or subdivisions.

**9. Natural Resources. a.** Will the proposal result in increase in the rate of use of any natural resources?

Answer: No Impact

It is not reasonable foreseeable that construction and operation of implementation alternatives would significantly increase the rate of use of any natural resources or cause substantial depletion of any nonrenewable natural resource. Implementation of proposed alternatives would not require quarrying, mining, dredging, or extraction of locally important mineral resources. Some types of alternatives and treatment facilities may consume electricity to operate pumps, etc., but not at levels which would cause impacts. Furthermore, facilities can be designed to operate hydraulically without the need for pumps. Fuel and energy consumption are discussed in greater detail in item 15 Energy, listed below.

**9. Natural Resources. B.** Will the proposal result in substantial depletion of any non-renewable natural resource?

Answer: No Impact

See response to 9. Natural Resources. a.

**10. Risk of Upset.** Will the proposal involve a risk of an explosion or the release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?

Answer: Potentially Significant Impact

Improvement of NDN Processes at WWTP/ Urban and Agriculture Runoff BMPs/Anaerobic Biodigester Systems/OWTS Inspections and Upgrades

There is the possibility that hazardous materials (e.g. oil and gasoline) may be present during implementation and/or operation of these implementation alternatives. Potential risk of exposure and explosion 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. Mitigation may include properly storing hazardous materials in protected areas with fencing and signs to prevent health hazards.

Anaerobic digesters are confined spaces and gases such as hydrogen sulfide and ammonia can accumulate inside a digester. Workers at an anaerobic digester system would be exposed to hazards and risks. To mitigate these impacts, compliance with Cal/OSHA workplace safety standards, including confined space and lockout procedures, will be required.

The biogas generated at anaerobic digesters can be explosive when mixed with air and a leak in a gas line could pose a fire hazard. However, the risk is usually low because these facilities typically operate with low pressure transmission lines. Mitigation for fire hazards include

complying with typical construction standards such as redundant fire safety relief valves, flame arresters, gas detectors and physical barriers to minimize fire and explosion hazards.

Manure Management/Grazing Management/Watershed-wide Implementation/

Implementation of these alternatives would not involve a risk of an explosion or the release of hazardous substances. No impact is anticipated.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**11. Population. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?**

Answer: No Impact

It is not anticipated that any reasonably foreseeable methods of compliance will result in an impact to population in the altering the location, distribution, density, or growth rate of human population of an area.

**12. Housing.** Will the proposal affect existing housing, or create a demand for additional housing?

Answer: No Impact

It is not anticipated that the reasonably foreseeable methods of compliance will result in an impact to existing housing, or create a demand for additional housing. Projects such as improvements at the WWTP, biofilter systems, low-volume irrigation systems, anaerobic biodigester systems are generally small and/or would be located in nonresidential areas. Thus, responsible parties would not need to impact existing housing or create a demand for housing in order to site BMPs or other projects.

It is not reasonably foreseeable that non-structural BMPs would affect existing housing, or create a demand for additional housing.

**13. Transportation/Circulation. a.** Will the proposal result in generation of substantial additional vehicular movement?

Answer: Potentially Significant Impact

### Improvement of NDN Processes in WWTP/ Urban and Agriculture Runoff BMPs/Anaerobic Biodigester Systems/Watershed-wide Implementation

The reasonably foreseeable means of compliance will not result in generation of substantial additional long-term vehicular movement. The proposal may result in additional vehicular movement during installation of urban and agriculture BMPs or during riparian restoration projects. Additionally, improvements of NDN process at the WWTP and the construction of an anaerobic biodigester may result in increased vehicular movement at specific locations in the watershed and on Highway 33. However, impacts from both BMP installation and waste treatment upgrades will be temporary and limited in duration to the period of installation/construction. These impacts would be spread out spatially over the watershed and/or temporally over the implementation schedules. The proposed project would be in conformance with the existing Ventura County congestion management plan (CMP).

In order to reduce the impact of construction traffic, implementation of a construction management plan for specified facilities could be developed to minimize traffic impacts upon the local circulation system. A construction traffic management plan could address traffic control for any street closure, detour, or other disruption to traffic circulation. The plan could identify the routes that construction vehicles will use to access the site, hours of construction traffic, and traffic controls and detours. The plan could also include plans for temporary traffic control, temporary signage, location points for ingestion and egress of construction vehicles, staging areas, and timing of construction activity which appropriately limits hours during which large construction equipment may be brought on or off site. Potential impacts could also 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.

Additionally, once the anaerobic biodigester is operational there will be a minimal to moderate amount of on-going traffic to haul manure to the treatment system. Collections of manure could be regularly scheduled and may be as frequent as once a week. This transport of manure would likely be similar to current manure hauling that is already taking place in the watershed; however, traffic related to manure hauling to the new biodigester would be localized in the watershed whereas, currently manure is hauled long distances out of the watershed to landfill disposal sites.

Maintenance of structural treatment devices and ongoing treatment operations could cause additional traffic. The frequency and intensity of maintenance and daily operations will vary. The proposed project should be in conformance with the Ventura County CMP and would result would mitigate impacts. To the extent that operation and maintenance caused traffic impacts, they could be mitigated by designing BMPs that require less frequent maintenance and scheduling of maintenance during non-peak traffic hours and by including required traffic control devices as part facility design.

### Manure Management/Grazing Management/ OWTS Inspections and Upgrades

It is not anticipated that manure management, grazing management activities, and/or OWTS upgrades will result in in generation of substantial additional vehicular movement. These are small projects to be implemented by individual homeowners and/or ranch operations.

### Non-Structural BMPs

Non-structural BMPs could result in increases in vehicular movement due to increased traffic from maintenance vehicles. However, the increase in vehicular movement would be no greater than typical infrastructure maintenance activities currently performed in the 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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

### **13. Transportation/Circulation. b. Effects on existing parking facilities, or demand for new parking?**

Answer: Potentially Significant Impact

#### Urban and Agriculture Runoff BMPs

Compliance with the TMDL may result in alterations to existing parking facilities to incorporate structural BMPs to treat runoff. Structural BMPs can be designed to accommodate space constraints or be placed under parking spaces and would not significantly decrease the amount of parking available in existing parking facilities. If structural BMPs did create an impact on parking, available parking spaces can be reconfigured to provide equivalent number of spaces or a functionally similar parcel can be provided to mitigate potential adverse parking impacts.

Maintenance of structural BMPs could reduce available parking in an area during certain times of the day, week, and/or month, depending on frequency of operation and/or maintenance events. Maintenance events should be scheduled to be performed at the same time as other maintenance activities performed by the municipalities, and/or at times when these activities have lower impact, such as periods of low traffic activity and parking demand.

#### Improvement of NDN Processes in WWTP/Anaerobic Biodigester System/Watershed-wide Implementation/OWTS Inspection and Upgrade/Manure Management and Grazing Management

These implementation alternatives will be take place at existing facilities or individual properties and not require new parking or increase demand on existing parking. A newly built biodigester system may include adequate parking into the facility design.

### Non-Structural BMPs

Non-structural BMPs may result in short-term impacts to existing parking facilities, if construction operations require use of existing parking. Non-structural BMPs should be scheduled at times when these activities have lower impact, such as periods of low traffic activity and parking demand.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**13. Transportation/Circulation. c.** Will the proposal result in substantial impacts upon existing transportation systems?

Answer: Potentially Significant Impact

Improvement of NDN Processes in WWTP/ Urban and Agriculture Runoff BMPs/Anaerobic Biodigester Systems/Watershed-wide Implementation

Depending on the implementation alternative selected and construction activities, temporary alterations to existing transportation systems may be required during construction and installation activities. The potential impacts would be limited and short-term.

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.

See response to 13. Traffic. a.

Manure Management/Grazing Management/ OWTS Inspections and Upgrades

It is not anticipated that manure management, grazing management activities, and/or OWTS upgrades will result impacts on existing transportation systems. These are small projects to be implemented by individual homeowners and/or ranch operations.

Non-Structural BMPs

It is not reasonably foreseeable that non-structural BMPs would result in substantial impacts upon existing transportation systems.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**13. Transportation/Circulation. d.** Will the proposal result in alterations to present patterns of circulation or movement of people and/or goods?

Answer: Potentially Significant Impact

See response to “Transportation/Circulation.” 13. a. and 13. c.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**13. Transportation/Circulation. e.** Will the proposal result in alterations to waterborne, rail or air traffic?

Answer: No Impact

It is not reasonably foreseeable that implementation alternatives would result in alterations to waterborne, rail or air traffic.

**13. Transportation/Circulation. f.** Will the proposal result in increase in traffic hazards to motor vehicles, bicyclists or pedestrians?

Answer: Potentially Significant Impact

Improvement of NDN Processes in WWTP/ Urban and Agriculture Runoff BMPs/Anaerobic Biodigester Systems/Watershed-wide Implementation

A temporary increase in traffic hazards may occur during construction and installation activities. The specific project impacts can be mitigated by appropriate mitigation methods during construction. To the extent that site-specific projects entail excavation in roadways, such excavations should be marked, barricaded, and traffic flow controlled with signals or traffic control personnel in compliance with authorized local police or California Highway Patrol requirements. These methods would be selected and implemented by responsible parties considering project level concerns. Standard safety measures should be employed including fencing, other physical safety structures, signage, and other physical impediments designed to promote safety and minimize pedestrian/bicyclists accidents.

### Manure Management/Grazing Management/ OWTS Inspections and Upgrades

It is not anticipated that manure management, grazing management activities, and/or OWTS upgrades will increase in traffic hazards to motor vehicles, bicyclists or pedestrians. These are small projects to be implemented by individual homeowners and/or ranch operations.

### Non-Structural BMPs

It is not reasonably foreseeable that other non-structural BMPs would result in increases in traffic hazards to motor vehicles, bicyclists or pedestrians.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**14. Public Service. a.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: Fire protection?

Answer: Potentially Significant Impact

### Improvement of NDN Processes in WWTP/ Urban and Agriculture Runoff BMPs/Anaerobic Biodigester Systems/Watershed-wide Implementation

During construction and installation of these alternatives and/or upgrades at facilities, temporary delays in response time of fire vehicles due to road closure/traffic congestion during construction activities may occur. However, any construction activities would be subject to applicable building and safety and fire prevention regulations and codes. The responsible parties could notify local emergency service providers of construction activities and road closures and could coordinate with local providers to establish alternative routes and appropriate signage. In addition, an Emergency Preparedness Plan could be developed for the construction of proposed new facilities in consultation with local emergency providers to ensure that the proposed project's contribution to cumulative demand on emergency response services would not result in a need for new or altered fire protection services. Most jurisdictions have in place established procedures to ensure safe passage of emergency vehicles during periods of road maintenance, construction, or other attention to physical infrastructure. The installation of structural devices would not create any more significant impediments than such other ordinary activities.



### Manure Management/Grazing Management/ OWTS Inspections and Upgrades

It is not anticipated that manure management, grazing management activities, and/or OWTS upgrades will have an effect upon, or result in a need for new or altered governmental services in the area of fire protections. These are small projects to be implemented by individual homeowners and/or ranch operations.

### Non-structural BMPs

It is not reasonably foreseeable that non-structural BMPs would result in a need for new or altered governmental services in fire protection.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**14. Public Service. b.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: Police protection?

Answer: Potentially Significant Impact

### Improvement of NDN Processes in WWTP/ Urban and Agriculture Runoff BMPs/Anaerobic Biodigester Systems/Watershed-wide Implementation

There is potential for temporary delays in response times of police vehicles due to road closure/traffic congestion during installation of treatment alternatives and/or construction activities at new or existing facilities. To mitigate potential delays the responsible parties could notify local emergency and police service providers of construction activities and road closures, if any, and coordinate with the local police protection to establish alternative routes and traffic control during the installation activities. Most jurisdictions have in place established procedures to ensure safe passage of emergency vehicles during periods of road maintenance, construction, or other attention to physical infrastructure, and there is no evidence to suggest that installation of these structural devices would create any more significant impediments than other such typical activities. Any construction activity would be subject to applicable building and safety codes and permits. Therefore, the potential delays in response times for police vehicles after mitigation are less than significant.

### Manure Management/Grazing Management/ OWTS Inspections and Upgrades

It is not anticipated that manure management, grazing management activities, and/or OWTS upgrades will result in a need for new or altered government services in police protections. These are small projects to be implemented by individual homeowners and/or ranch operations.

### Non-Structural BMPs

It is not reasonably foreseeable that non-structural BMPs would result in a need for new or altered governmental services in police protection.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**14. Public Service. c.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: Schools?

Answer: No Impact

It is not reasonably foreseeable that implementation alternatives would result in the need for new or altered schools. None of the implementation alternatives will have an effect upon or result in the need for schools because the implementation activities will not impact this public service category.

**14. Public Service. d.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: parks or other recreational facilities?

Answer: Potentially Significant Impact

### Urban and Agriculture Runoff BMPs/Watershed-wide Implementation

Proposed implementation strategies for this TMDL include biofilter systems, natural treatment systems, riparian restoration, and stream bank stabilization activities. The proposal may result altered park recreational activities during construction periods or if open space areas of parks are used for stormwater infiltration. Projects may be designed to increase parks and wildlife habitat areas and to improve water quality. Several of the stormwater BMPs can be designed for multi-use purposes. Vegetated systems like swales and biofiltration systems can also be designed to integrate local vegetation. Placement of these systems within the park and usage as stormwater systems would not otherwise impact parks or other recreational facilities. Proper siting of other

infiltration stormwater BMPs and diversion and treatment facilities may mitigate adverse impacts to parks and recreational facilities.

Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Manure Management/Grazing Management/OWTS Inspections and Upgrades

It is not anticipated that improvements at the WWTP, construction of a biodigester system, manure management, grazing management activities, and/or OWTS upgrades will result in a need for new or altered government services in the area of parks or recreational facilities. These projects would occur at existing locations, locations with appropriate land use, and/or at individual properties and would not create demand for new park facilities.

Non-Structural BMPs

It is not foreseeable that non-structural BMPs will have a negative impact upon, or result in a need for new or altered governmental services to parks or other recreational facilities.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**14. Public Service. e.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: maintenance of public facilities, including roads?

Answer: Potentially Significant Impact

Urban Runoff BMPs/Improvement of NDN Processes in WWTP/Watershed-wide Implementation

Structural BMPs, treatment plant upgrades, and watershed restoration projects could potentially impact public service requiring additional maintenance to ensure proper operation. Biofilter systems, natural treatment systems, flow diversion devices, and additional wastewater treatment facilities may require some degree of maintenance, though the frequency and intensity of maintenance vary per BMPs, plant operations, and watershed restoration activity. These BMPs can be designed and engineered to lessen the amount of maintenance and servicing required. While these requirements may result in increases in maintenance costs, any increase will be outweighed by the resulting overall improvement in water quality and protection of aquatic life and water supply beneficial uses.

Anaerobic Biodigester Systems/Manure Management/Grazing Management/OWTS Inspections and Upgrades

It is not anticipated that the anaerobic biodigester system, manure management, grazing management activities, and/or OWTS upgrades will result in a need for new or altered government services in the area of public facilities maintenance. The biodigester project would be constructed and/or operated privately and not require public maintenance; moreover manure and grazing management and OWTS inspections/upgrades would be the responsibility of individual property owners/operators.

Non-Structural BMPs

It is not foreseeable that non-structural BMPs will have an impact upon, or result in a need for new or altered governmental services in any of the following areas: maintenance of public facilities including roads.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**14. Public Service. f.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: other government services?

Answer: No Impact

Implementation of the proposed TMDL is not likely to result in a need for new or altered other governmental services. Impacts to governmental services, including fire protection, police protection, schools, parks or other recreation facilities, and maintenance of public facilities included roads, have been addressed in 14. Public Services. a, b, c, d, and e.

**15. Energy. a.** Will the proposal result in use of substantial amounts of fuel or energy?

Answer: Potentially Significant Impact

Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

Compliance should not result in the use of substantial additional amounts of fuel or energy, or a substantial increase in demand upon existing sources of energy, or require the development of new sources of energy.

Construction of infrastructure improvements require energy and fuel for heavy equipment, machinery, and vehicles. Energy demands during construction are temporary. Responsible parties can further mitigate fuel and energy consumption during construction through the use of more energy efficient vehicles and equipment.

Reasonably foreseeable infrastructural improvements require infrequent maintenance and are unlikely to use substantial amount of fuel or energy, substantially increase demand upon existing sources of energy, or require the development of new sources of energy.

Anaerobic biodigester systems would produce biogas, which can be used generate heat, hot water, or electricity—significantly reducing the cost of electricity and other farm fuels such as natural gas, propane, and fuel oil. This is considered a positive impact.

#### Non-Structural BMPs

Increases in administrative action, and outreach and education may also increase consumption and demand for fuel and energy. Responsible parties may also employ volunteers and choose to employ outreach activities and use of more energy efficient vehicles.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**15. Energy. b.** Will the proposal result in a substantial increase in demand upon existing sources of energy, or require the development of new sources of energy.

Answer: Less than significant

See response to “15. Energy. a.” Compliance with the TMDL will not increase demand for energy or require the development of new sources of energy.

**16. Utilities and Service Systems. a.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities: power or natural gas?

Answer: Potentially Significant Impact

Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

Installation of the listed alternatives may require alterations or installation of new power or natural gas lines temporarily during construction or a more permanent basis for operation and maintenance for alternatives like anaerobic biogas systems. The degree of alteration depends upon local system layouts which may be minimized with proper siting and design. However, installing, operating, or maintaining the various alternatives are not likely to result in a reasonably foreseeable adverse impact to power and natural gas systems due to the fact that the listed alternatives are not foreseen to be of size or scope to substantially tax current power or natural gas sources. Impacts related to installation and construction are temporary. If alterations to power or natural gas utilities are made, resulting impacts may be potentially significant. Mitigation measures are available including better project siting and design as well as employing other BMPs that may result in less significant impacts. While these requirements may result in impacts to utility systems, these impacts will be outweighed by the resulting overall improvement in water quality and protection of aquatic life and water supply beneficial uses.

Non-Structural BMPs

Non-structural BMPs are not likely to result in a need for new systems or alterations to power or natural gas 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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**16. Utilities and Service Systems. b.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities: communications systems?

Answer: Less Than Significant Impact

Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

New systems or alterations to communications systems may not be necessary for the listed implementation alternatives. Construction and maintenance crews will employ various communication systems such as telephones, cell phones, and radios. These types of communication devices and systems are used daily by the construction and maintenance personnel as part of regular business activities. It is not reasonably foreseeable that the implementation of this TMDL would create undue stress on the established communication systems and will not require substantial alterations to the current communication system or a new communication system.

Construction activities could require temporary disconnecting and reconnecting or relocating existing underground cables for communication. Although the relocations would be short term and temporary, the impact could be significant. Any necessary disruption or relocation of utility lines should be coordinated with the local parties or service districts responsible for managing the affected utilities prior to project construction. Mitigation measure are available including better project siting and design as well as employing other BMPs that may result in less significant impacts. While these requirements may result in impacts to utility systems, these impacts will be outweighed by the resulting overall improvement in water quality and protection of aquatic life and water supply beneficial uses.

#### Non-Structural BMPs

Non-structural BMPs are not likely to result in a need for new systems or alterations to communications systems. Current forms of communications used in maintenance vehicles may still be used.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**16. Utilities and Service Systems. c.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities: water?

Answer: Potentially Significant Impact

#### Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

Installation of the listed alternatives may require alterations or installation of water lines temporarily during construction. Construction activities may require temporary disconnecting and reconnecting or relocating existing utility lines such as water lines. Although the relocations would be short term and temporary, the impact could be significant. Mitigation measure are available including better project siting and design as well as employing other BMPs that may result in less significant impacts. Increased water use efficiency, water reuse, and use of water recycling maybe reduce the need for new systems or alter existing water systems. While these requirements may result in impacts to utility systems, these impacts will be outweighed by the resulting overall improvement in water quality and protection of aquatic life and water supply beneficial uses.

### Non-Structural BMPs

Non-structural BMPs will not result in a need for new systems or alterations to water supply. The need for new municipal or recycled water to implement this TMDL is not foreseeable.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**16. Utilities and Service Systems. d.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities: Sewer or septic tanks?

Answer: Potentially Significant Impact

### OWTS Inspections and Upgrades

Inspection, regular monitoring, and upgrades for both residential and commercial/industrial OWTS to reduce nutrient loading associated with improperly operating OWTS may result in potentially significant impacts to sewer or septic utilities. If septic tanks fail to pass inspections and are determined to be contributing to excessive nutrient loading to the river, upgrades to the OWTS or connection to the sewers system may be required. While these requirements may result in impacts to utility systems, these impacts will be outweighed by the resulting overall improvement in water quality and protection of aquatic life and water supply beneficial uses. Furthermore, the State Water Resources Control Board has set aside funds from its State Revolving Fund Program that can be made available to local qualified agencies who can then provide low-interest loans to homeowners to repair, replace, or upgrade their OWTS or connect to the sewer system.

### Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/Watershed-wide Implementation/Non-Structural BMPs

It is not reasonably foreseeable that these alternatives would result in a need for new systems, or substantial alterations to sewer or septic tanks 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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**16. Utilities and Service Systems. e.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities: storm water drainage?

Answer: Potentially Significant Impact

Urban Runoff BMPs

The installation of urban and agricultural runoff BMPs may result in substantial alterations to storm water drainage due the intended capture, treatment, or flow velocity reduction. These impacts may be mitigated by installing high-flow bypasses proper project modeling, siting, and planning can help mitigate adverse impacts to substantial alterations to storm water drainage.

NDN Process Improvement in the WWTP/Anaerobic Biodigester Systems/ /OWTS Inspections and Upgrades/ Non-structural BMPs/ Agriculture Runoff BMPs/Watershed-wide Implementation

These implementation alternatives are not likely to result in a need for new systems, or substantial alterations to stormwater drainage.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**16. Utilities and Service Systems. f.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities: solid waste and disposal?

Answer: Potentially Significant Impact

Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

Site preparation (such as vegetation removal and grading activities) and construction activities could generate construction wastes. These wastes would require disposal at landfills or other waste disposal facilities within Ventura County. Construction wastes can be recycled at aggregate recycling centers or disposed of at landfills. Improved sorting and recycling methods can reduce the total amount of disposable wastes.

Based on the capacity of landfills within Ventura County, it is not anticipated that the collected construction wastes will cause an exceedance of permitted landfill capacity. In addition, Ventura County and many municipalities have construction and demolition debris recycling and reuse programs. Recycling and reuse of construction and demolition material can considerably reduce the amount of debris sent to landfills. Adequate modeling and planning can help mitigate any possible negative impacts to be less than significant. In addition, agricultural runoff BMPs including mulching and composting rather than disposal may in fact reduce impact to solid waste and disposal systems.

### Non-structural BMPs

Non-structural BMPs are not likely to 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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**17. Human Health. a.** Will the proposal result in creation of any health hazard or potential health hazard (excluding mental health)?

Answer: Potentially Significant Impact

### Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

It is reasonably foreseeable that hazards or hazardous materials could be encountered during the installation and operation and maintenance of various implementation alternatives. Contamination could exist depending on the current and historical land uses of the area. Depending on their location, BMPs could be proposed in areas of existing oil fields and/or methane zones or in areas with contaminated soils or groundwater. The use of hazardous materials (e.g., paint, oil, gasoline) and potential for accidents is also likely during installation.

To the extent that installation and operation and maintenance of BMPs and other treatment systems could involve work with or near hazards or hazardous materials, potential risks of exposure can be mitigated with proper handling and storage procedures. The health and safety plan prepared for any project should address potential effects from cross contamination and worker exposure to contaminated soils and water and should include a plan for temporary storage, transportation, and disposal of contaminated soils and water. Compliance with CalOSHA requirements and local safety regulations during installation, operation, and maintenance of these systems would prevent any worksite accidents or accidents involving the release of hazardous materials into the environment, which could harm the public, nearby residents and sensitive receptors such as schools. Systems can be redesigned and sites can be properly protected with fencing and signs to prevent accidental health hazards.

To the extent that, urban and agricultural runoff BMPs become a source of standing water and vector production, design at the project level can help mitigate vector production from standing water. Vector control agencies may be employed as another source of mitigation. Systems that are prone to standing water can be selectively installed away from high-density areas and away from residential housing and/or by requiring oversight and treatment of those systems by vector control agencies. Appropriate planning, design, siting, and implementation can reduce or eliminate potential health hazards due to the installation of the BMPs.

#### Non-Structural BMPs

Non-structural BMPs are not likely to change the physical environment either directly or indirectly and are not likely to result in an adverse impact to hazards, hazardous materials, or human health.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

#### **17. Human Health. b.** Will the proposal result in exposure of people to potential health hazards?

Answer: Potentially Significant Impact

See response to 17. Human Health a.

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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

#### **18. Aesthetics. a.** Will the proposal result in the obstruction of any scenic vista or view open to the public?

Answer: Potentially Significant Impact

### Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/ Watershed-wide Implementation

Construction and installation of these implementation alternatives could potentially result in a temporary impairment of a scenic vista or view open to the public and create an aesthetically offensive site open to the public view. Project construction would require site grading, construction materials, stockpiling and storage, and the use of construction equipment. This construction impact would be localized and short-term, lasting during the normal working hours at specific locations. Construction BMPs like screening and landscaping can help mitigate aesthetic impacts. Construction materials and equipment shall be removed from the site as soon as they are no longer necessary. In general additional riparian habitat and densely vegetated systems serve improve the overall aesthetic appeal of the surrounding areas.

### Anaerobic Biodigester Systems

Depending on the location of installation of an anaerobic biodigester impacts to scenic vistas and resources could occur from construction, buildings and/or structures, or biogas equipment. Mitigation measures could include avoiding the siting of facilities near scenic vistas or corridors designated as scenic and employing landscaping to minimize views of facilities from sensitive views.

### Improvement of NDN Processes in WWTP/ Non-structural BMPs

Improvement of NDD process at the WWTP and non-structural BMPs will not result in the obstruction of any scenic vista or view open to the public because they would introduce any new physical effects that could impact this characteristic.

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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**18. Aesthetics. b.** Will the proposal result in the creation of an aesthetically offensive site open to public view?

Answer: Potentially Significant Impact

See response to 18. Aesthetics. a.

**19. Recreation. a.** Will the proposal result in impacts on the quality or quantity of existing recreational opportunities?

Answer: Potentially Significant Impact

Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

During construction and installation of various implementation alternatives, the estuary, the river and its tributaries or other recreational areas could be temporarily affected. Construction activities could potentially be performed near or within a river or recreational area. Potential impacts would be limited and short-term, and could be avoided through proper planning, and scheduling of construction activities.

In the event that the responsible parties might install facilities on a scale that could alter a recreational area, the implementation alternatives could be designed in such a way as to be incorporated into the recreational area. Mitigation to replace lost areas may include the creation of new open space recreation areas and or improved access to existing open space recreation areas.

Additionally, improvement of water quality could create new recreation opportunities in the watersheds by providing the opportunity to recreate in and near a clean water body with a robust and diverse population of plants and animals.

Non-Structural BMPs

It is not reasonably foreseeable that non-structural BMPs would impact the quality or quantity of existing recreational opportunities.

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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**20. Archeological/Historical.** Will the proposal result in the alteration of a significant archeological or historical site structure, object or building?

Answer: Potentially Significant Impact

Improvement of NDN Processes in WWTP/ Anaerobic Biodigester Systems/Urban and Agriculture Runoff BMPs/OWTS Inspections and Upgrades/Watershed-wide Implementation

These implementation alternatives may occur urbanized or agricultural areas where ground disturbance has previously occurred. In these areas it is unlikely that implementation of these treatment devices would cause a substantial adverse change to historical or archeological

resources, destroy paleontological resources, or disturb human remains. Installation of these systems could result in minor ground disturbances, which could impact cultural resources if they are sited in locations containing these resources and where disturbances have not previously occurred.

Responsible parties should complete an archaeological survey which should include consultation with the Native American Heritage Commission after project siting and design to aid in accurate assessments of potential impacts. Potential impacts may be mitigated through project redesign, such as the relocation of facilities outside the boundaries of archeological or historical sites and if prehistoric or historic cultural resources are discovered in project area during construction, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist may visit the site of discovery and assess the significance of the archaeological discovery.

#### Non-structural BMPs

Non-structural BMPs are not likely to impact physical environment either directly or indirectly and are not likely to result in adverse potential impact resulting in the alteration of a significant archeological or historical site structure, object or building.

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 responsible and jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

### **21. Mandatory Findings of Significance.**

**21. a Potential to degrade.** 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

Taken all together, the potential impacts of the project will not cause a significant degradation to the environment with appropriate implementation of available mitigation measures. 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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**21. b Short-term.** Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?

Answer: No Impact

This TMDL is directed to long-term environmental goals, and does not sacrifice long-term for short-term benefit. There are no short-term beneficial effects on the environment from the implementation of the various implementation alternatives that would be at the expense of long-term beneficial effects on the environment. The implementation and compliance with 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.

**21. c. Cumulative.** Does the project have impacts which are individually limited, but cumulatively considerable?

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 impacts if available mitigation measures are properly 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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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)).

**21. d. Substantial adverse.** 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. 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.

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 jurisdiction of the responsible parties listed in this TMDL (Title 14, California Code of Regulations, Section 15091(a)(2)). These parties 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 Nutrients 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 Nutrients 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**

Currently there is another one TMDL adopted for Ventura River Estuary Trash TMDL. Based on the 303(d) list, the future TMDLs likely be developed is the Ventura River Bacteria TMDL. 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 Nutrients TMDL. In fact, potential implementation strategies discussed in this SED may contribute to the implementation of other TMDLs near the Ventura River and its tributaries in the future.

#### **7.1.2 PROJECT CUMULATIVE IMPACTS**

Specific TMDL projects must be environmentally evaluated and cumulative impacts considered as the responsible party designs and sites the project. 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 Nutrients 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 Nutrients 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 VCAPCD 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 Nutrients 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.

**Public Services** - The cumulative effects on public services in the Nutrients TMDL study area would be limited to traffic inconveniences discussed above. These effects are not considered cumulatively significant as discussed above.

**Aesthetics** - Construction activities associated with other related projects may be ongoing in the vicinity of one or more Nutrients 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 Ventura River and its tributaries,
- 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 Nutrients 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 Nutrients 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 Nutrients 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 Ventura, Cities of Ojai and Ventura is governed by their General Plans, 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 Nutrients 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 Nutrients TMDL focus on structural BMPs, non-structural 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.

Implementation of the proposed TMDL would occur over a 10-year time period. Installation and maintenance spending for compliance would generate jobs throughout the region and elsewhere where goods and services are purchased or used to install treatment alternatives. Based on the above annual construction cost estimates, the alternatives would result in direct jobs and indirect jobs. The creation of jobs in the region is considered a benefit.

Although the construction activities associated with the Nutrients TMDL would increase the economic opportunities in the area and region, this construction is not expected to result in or induce substantial or significant population or land use development growth because the majority of the new jobs that would be created by this construction are expected to be filled by persons already residing in the area or region, based on the existing surplus of unemployed persons in the area and region.

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 Nutrients 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 algae and nutrient-related impairments in the Ventura River and its tributaries (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 potential algae and nutrient hazards in the Ventura River and its tributaries.

## **8. STATEMENT OF OVERRIDING CONSIDERATIONS AND DETERMINATION**

The Regional Board staff has balanced the economic, legal, social, technological, and other benefits of this proposed Nutrients TMDL against the unavoidable environmental risks in determining whether to recommend that the Regional 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 Nutrients 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 in the Ventura River and its tributaries. 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 and infrastructure maintenance. Routine construction and maintenance of power lines and storm sewer systems are regular and expected activities carried out by responsible parties. 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.

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 Board does not establish this TMDL, the USEPA 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 USEPA's establishment of the TMDL would be significantly more severe, as discussed herein, because USEPA 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 storm water 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 Ventura River and its tributaries, 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 in the Ventura River and its tributaries. 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 Ventura River and its tributaries Nutrients 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 of compliance 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 Board does not have legal authority to specify the manner of compliance with its orders or regulations (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 algae and nutrients impairments from the Ventura River and its tributaries (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.

Samuel Unger  
Signature

12-6-2012  
Date

Samuel Unger  
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).



## 10. REFERENCES

California Invasive Plant Council (Cal-IPC). 2006. California Invasive Plant Inventory, February, 2006. Available at <http://www.cal-ipc.org/ip/inventory/index.php>.

California Stormwater Quality Association (CASQA). 2003a. California Stormwater BMP Handbook: Municipal. January 2003. Available at <http://www.cabmphandbooks.com>.

California Stormwater Quality Association (CASQA). 2003b. California Stormwater BMP Handbook: New Development and Redevelopment. January 2003. Available at [www.cabmphandbooks.com](http://www.cabmphandbooks.com).

Los Angeles Regional Water Quality Control Board (LARWQCB). 1994. Water Quality Control Plan for the Los Angeles Region (Basin Plan).

Mangiafico, S. S., J. Newman, M. Mochizuki, D. Zurawski, D. J. merhaut, and B. Faber. 2010. Nurseries Surveyed in Southern California Adopt Best Practices for Water Quality. California Agriculture 64: 26-30.

MWH. 2007. Conceptual evaluation of process retrofit alternatives to achieve low nutrient discharges. Technical memorandum. Ref # 1342830/6.2

National Marine Fisheries Service, Southern California Steelhead Recovery Plan Summary. Southwest Regional Office, Long Beach, CA. January 2012

NRCS, 2000. USDA-NRCS Field Office Technical Guide. Downloaded from: <http://efotg.nrcs.usda.gov/treemenuFS.aspx>. Retrieved May 23, 2012.

OCES, 1998. Oklahoma Cooperative Extension Service, Oklahoma State University. Riparian Area Management Handbook. E-952.

United States Environmental Protection Agency (USEPA). 2002. Managing Manure with Biogas Recovery Systems Improved Performance at Competitive Costs. Office of Air and Radiation. EPA-430-F-02-004.

United States Environmental Protection Agency (US EPA. 2003). National Management Measures to Control Nonpoint Pollution from Agriculture. EPA 841-B-03-004, July 2003

United States Environmental Protection Agency (USEPA). 2004. Constructed Treatment Wetlands. Office of Water. Washington, DC. EPA 843-F-03-013.

United States Department of Agriculture (USDA). 1997. Riparian Forest Buffer. Natural Resources Conservation Service.

Water Environment Research Foundation (WERF). 2005. Critical Assessment of Stormwater Treatment and Control Selection Issues. Project No. 02-SW-1. Available at <http://www.werf.org/AM/Template.cfm?Section=Research&Template=/CustomSource/Research/ResearchProfile.cfm&ReportId=02-SW-1&CFID=707181&CFTOKEN=54086235>.

W2E. 2010. Waste to Energy (W2) Anaerobic Digester for the Ojai Valley Project Frequently Asked Questions. September 9, 2010.