Attachment 1 to Staff Report



## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL COAST REGION

# 895 Aerovista Place, Suite 101 San Luis Obispo, California 93401

PROPOSED RESOLUTION NO. R3-2023-0003 AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE CENTRAL COASTAL BASIN TO ESTABLISH TOTAL MAXIMUM DAILY LOADS FOR NITROGEN COMPOUNDS IN THE SANTA YNEZ RIVER BASIN, SANTA BARBARA COUNTY, CALIFORNIA



WHEREAS, the California Regional Water Quality Control Board, Central Coast Region (hereafter Central Coast Water Board), finds that:

- The Central Coast Water Board adopted the Water Quality Control Plan for the Central Coastal Basin (Basin Plan) on March 14, 1975. The Basin Plan designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters. The Basin Plan also includes implementation programs for achieving water quality objectives addressing point source and nonpoint source discharges, prohibitions, and incorporates statewide plans and policies. The current Basin Plan is the June 2019 Edition. The Central Coast Water Board has determined that the Basin Plan requires further revision and amendment.
- 2. The Basin Plan may be amended in accordance with California Water Code section 13240 and following.
- 3. The Central Coast Water Board has determined the Basin Plan requires further revision and amendment to establish Total Maximum Daily Loads (TMDLs) and an implementation plan for nitrogen compounds for the Santa Ynez River basin as identified in the attached Basin Plan amendment.
- 4. Pursuant to California Water Code section 106.3(a), it is the policy of the State of California that every human being has a right to safe, clean, affordable, and accessible water adequate for human consumption. California Water Code section 106.3(b) requires the Central Coast Water Board to consider how their actions impact the human right to water and to explicitly consider the human right to water when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and grant criteria affect the human right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.
- 5. On January 26, 2017, the Central Coast Water Board adopted <u>Resolution No. R3-2017-0004</u>,<sup>1</sup> resolving to continue to consider the human right to water when revising water quality control plans.
- 6. This Basin Plan amendment promotes the State policy and Resolution No. R3-2017-0004 by establishing TMDLs for nitrogen compounds in the Santa Ynez River basin. Waterbodies in this watershed are designated for protection of human health including beneficial uses for recreation and municipal and domestic water supply.
- 7. Consistent with the human right to water law and Resolution No. R3-2017-0004, the public process to consider these TMDLs provided meaningful opportunities for individuals and communities that lack adequate, affordable, or safe drinking water to

<sup>&</sup>lt;sup>1</sup>https://www.waterboards.ca.gov/centralcoast/board\_decisions/adopted\_orders/2017/20 17-0004\_hrtw\_fnl.pdf

engage in Water Board activities and provide input to Water Board decisions that affect their communities.

- 8. Consistent with the human right to water law and Resolution No. R3-2017-0004, this TMDL Project is intended, in part, to address discharges of pollutants to the Santa Ynez River basin and to provide for the regulation of such discharges to attain the highest water quality reasonable, considering all demands being made on those waters and the total values involved.
- 9. Multiple waterbodies within the Santa Ynez River basin are listed on the federal Clean Water Act section 303(d) List for water quality impairments due to nitrate and un-ionized ammonia. Consequently, the Central Coast Water Board is required to adopt TMDLs (Code of Federal Regulations, title 40, sections 130.6(c)(1) and 130.7) and an associated implementation plan (California Water Code, section 13242).
- 10.. The Basin Plan amendment in Attachment A to this Resolution revises Chapter 4, Section 9 (Total Maximum Daily Loads) of the Basin Plan by establishing TMDLs for nitrogen compounds in streams of the Santa Ynez River basin. In the context of this TMDL project "streams" refer to any body of running water (such as a river, creek, brook, slough, canal, ditch, ephemeral drainage) which flows on the earth's surface within the Santa Ynez river basin.
- 11. On May 20, 2004, the State Water Resources Control Board (State Water Board) adopted the <u>Policy for Implementation and Enforcement of the Nonpoint Source</u> <u>Pollution Control Program</u> (NPS Policy)<sup>2</sup> (<u>State Water Board Resolution No. 2004-0030</u>).<sup>3</sup> This TMDL Project is consistent with the NPS Policy. The NPS Policy requires the Regional Water Boards to regulate nonpoint sources of pollution using the administrative permitting authorities provided by California Water Code division 7. Consistent with the NPS Policy and the Water Code, Regional Water Boards regulate nonpoint source discharges with waste discharge requirements, waivers of waste discharge requirements, and/or waste discharge prohibitions.
- 12. On September 30, 2004, the State Water Board adopted the <u>Water Quality Control</u> <u>Policy for Developing California's Clean Water Act section 303(d) List</u> (California 303(d) Listing Policy)<sup>4</sup> (<u>State Water Board Resolution No. 2004-0063</u>),<sup>5</sup> as amended

<sup>&</sup>lt;sup>2</sup>https://www.waterboards.ca.gov/water\_issues/programs/nps/docs/plans\_policies/nps\_i epolicy.pdf

<sup>&</sup>lt;sup>3</sup>https://www.waterboards.ca.gov/board\_decisions/adopted\_orders/resolutions/2004/rs2 004-0030.pdf

<sup>&</sup>lt;sup>4</sup>https://www.waterboards.ca.gov/board\_decisions/adopted\_orders/resolutions/2015/020 315\_8\_amendment\_clean\_version.pdf

<sup>&</sup>lt;sup>5</sup>https://www.waterboards.ca.gov/board\_decisions/adopted\_orders/resolutions/2004/rs2 004-0063.pdf

on February 3, 2015 (<u>State Water Board Resolution No. 2015-0005</u>).<sup>6</sup> The California 303(d) Listing Policy describes the process by which the State Water Board and the Regional Water Boards will comply with requirements of the federal Clean Water Act (33 United States Code, section 1251 and following). The objective of the California 303(d) Listing Policy is to establish a standardized approach for developing California's Clean Water Act section 303(d) List and to provide guidance for interpreting data and information to make decisions regarding water quality standards attainment. This TMDL Project is consistent with the California 303(d) Listing Policy.

- 13. On June 16, 2005, the State Water Board adopted the <u>Water Quality Control Policy</u> for Addressing Impaired Waters: Regulatory Structure and Options (Impaired Waters Policy)<sup>7</sup> (State Water Board Resolution No. 2005-0050).<sup>8</sup> The Impaired Waters Policy provides policy and procedures for adopting TMDLs and addressing impaired waters in California. The Impaired Waters Policy states that the Regional Water Boards have independent discretion, broad flexibility, numerous options, and some legal constraints that apply when determining how to address impaired waters. This TMDL Project is consistent with the Impaired Waters Policy.
- 14. The U.S. Environmental Protection Agency's (USEPA) published TMDL guidance<sup>9</sup> states that implementation of TMDLs and water quality-based controls should not be delayed due to lack of information or uncertainties about pollution problems, particularly with respect to nonpoint sources. More information about the spatial extent and nature of water quality impairments can be collected during TMDL implementation. Currently, there is sufficient information to develop and implement TMDLs for nitrogen compounds in the Santa Ynez River basin. In this TMDL project, nitrogen compounds refers to nitrate, un-ionized ammonia, and total nitrogen.
- 15. The elements of a TMDL are described in Code of Federal Regulations, title 40, sections 130.2 and 130.7, Clean Water Act section 303(d), and USEPA guidance documents. A TMDL is defined as "the sum of the individual [wasteload allocations] for point sources and [load allocations] for nonpoint sources and natural background." (40 Code of Federal Regulations section 130.2(i).) The Central Coast Water Board has determined that the TMDLs for nitrogen compounds in the Santa Ynez River basin are set at levels necessary to attain and maintain the applicable narrative and numeric water quality objectives, taking into account seasonal variations and any uncertainty concerning the relationship between effluent

<sup>&</sup>lt;sup>6</sup>https://www.waterboards.ca.gov/board\_decisions/adopted\_orders/resolutions/2015/rs2 015\_0005.pdf

<sup>&</sup>lt;sup>7</sup>https://www.waterboards.ca.gov/water\_issues/programs/tmdl/docs/iw\_policy.pdf <sup>8</sup>https://www.waterboards.ca.gov/board\_decisions/adopted\_orders/resolutions/2005/rs2 005-0050.pdf

<sup>&</sup>lt;sup>9</sup>USEPA, Guidance for Water Quality-Based Decisions: The TMDL Process, ch. 1, Policies and Principles, EPA 440/4-91-001, April 1991

limitations and water quality, consistent with 40 Code of Federal Regulations section 130.7(c)(1).

- 16. Upon establishment of a TMDL by the State or USEPA, the State is required to incorporate the TMDL into the State Water Quality Management Plan. (Code of Federal Regulations, title 40, section 130.6(c)(1) and 130.7.) In accordance with California Water Code sections 13050(j) and 13242, the State must also identify appropriate programs of implementation and implementation measures. The Basin Plan and applicable statewide plans serve as the State Water Quality Management Plan governing the watersheds under the jurisdiction of the Central Coast Water Board.
- 17. The TMDLs and implementation plans for nitrogen compounds in the Santa Ynez River basin were developed using sound scientific knowledge, methods, and practices in accordance with California Health and Safety Code section 57004. Health and Safety Code section 57004 requires external scientific peer review for certain water quality control policies. Scientific portions of these TMDLs are drawn exclusively from the Total Maximum Daily Loads for Nitrogen Compounds and Orthophosphate in the lower Salinas River and Reclamation Canal Basin, and the Moro Cojo Slough Subwatershed (Resolution No. R3-2013-0008)<sup>10</sup>, which received independent scientific peer review in the spring of 2012. As a result, the scientific methodologies used in development of these TMDLs have already undergone external, scientific peer review. Therefore the Central Coast Water Board has fulfilled the requirements of Health and Safety Code section 57004, and the proposed amendment does not require further peer review.
- 18. Central Coast Water Board staff (staff) will conduct a review of TMDL implementation activities when monitoring and reporting data are submitted as required by the existing or future permits and orders regulating nutrient discharges into the Santa Ynez River basin, including stormwater discharges and waste discharges from irrigated agricultural land and wastewater treatment, or when other monitoring and reporting data is submitted under other regulatory requirements or voluntary efforts. Staff will pursue modification of permit conditions or other regulatory means, as necessary, to address remaining impairments resulting from nitrogen compounds during the TMDL implementation phase.
- 19. Establishment of these TMDLs and adoption of this Basin Plan amendment will not result in any degradation of water quality; in fact, they are designed to improve water quality. As such, these TMDLs and this Basin Plan amendment comply with all requirements of both state and federal anti-degradation requirements. (State Water Board Resolution No. 68-16, <u>Statement of Policy with Respect to Maintaining High</u>

<sup>&</sup>lt;sup>10</sup>https://www.waterboards.ca.gov/centralcoast/water\_issues/programs/tmdl/docs/salina s/nutrients/

<u>Quality of Waters in California</u>:<sup>11</sup> Code of Federal Regulations, title 40, section 131.12.)

- 20. Pursuant to California Public Resources Code section 21080.5, the California Natural Resources Agency has approved the Regional Water Boards' basin planning process as a "certified regulatory program" that satisfies the requirements of the California Environmental Quality Act (CEQA) (California Public Resources Code, section 21000 and following) for preparing environmental documents. (California Code of Regulations, title 14, section 15251(g); California Code of Regulations, title 23, section 3775.) Staff has prepared Substitute Environmental Documentation (SED) for this TMDL Project, which contains all required materials set forth in California Code of Regulations, title 23, section 3777. The SED includes the following:
  - (1) Basin Plan amendment
  - (2) TMDL Project Report
  - (3) CEQA Checklist and Analysis Report

The Environmental Checklist, based on Appendix G to the CEQA Guidelines (California Code of Regulations, title 14, section 15000 and following), and other portions of the SED contain detailed analyses and findings related to foreseeable environmental impacts and potential mitigation measures.

- 21. A CEQA scoping meeting was conducted on September 28, 2022, by remote participation; a notice of the CEQA scoping meeting was sent to interested persons on August 18, 2022. The notice included the background of the project, the project purpose, a meeting schedule, and directions for obtaining more detailed information on the Central Coast Water Board website. The notice and project summary were available on the website or by requesting hard copies via telephone or email.
- 22. California Public Resources Code section 21159(a) 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. That section further states:

The environmental analysis shall, at 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.
- (3) An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation.
- (4) For a rule or regulation that requires the installation of pollution control equipment adopted pursuant to the California Global Warming Solutions

<sup>&</sup>lt;sup>11</sup>https://www.waterboards.ca.gov/board\_decisions/adopted\_orders/resolutions/1968/rs 68\_016.pdf

Act of 2006 (California Health and Safety Code, division 25.5, commencing with section 38500), the analysis shall also include reasonably foreseeable greenhouse gas emission impacts of compliance with the rule or regulation.

- 23. California Public Resources Code section 21159(c) requires that the environmental analysis take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites. The Staff Report prepared for this Basin Plan amendment, in particular the CEQA Checklist and Analysis Report provides the environmental analysis required by California Public Resources Code section 21159 and California Code of Regulations, title 23, section 3777, and is hereby incorporated as findings to this Resolution.
- 24. In preparing the SED, the Central Coast Water Board considered the requirements of California Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187. Pursuant to these requirements, the SED contains an analysis of the reasonably foreseeable environmental impacts that may result from the adoption of this regulation from a programmatic perspective. The SED is not intended to be an exhaustive analysis of every conceivable impact. Compliance obligations will be undertaken directly by public agencies that may have their own obligations under CEQA. The SED identifies mitigation approaches that should be considered at the project level and project level impacts that may need to be considered in any subsequent environmental analysis performed by other public agencies, pursuant to California Public Resources Code section 21159.2. To the extent applicable, this SED may be used to satisfy subsequent CEQA obligations of those agencies.
- 25. Consistent with the Central Coast Water Board's substantive obligations under CEQA, the SED does not engage in speculation or conjecture and only considers reasonably foreseeable environmental impacts, including those relating to methods of compliance, reasonably foreseeable feasible mitigation measures to reduce those impacts, and reasonably foreseeable alternative means of compliance that would avoid or reduce the identified impacts.
- 26. The TMDL Project Report, Basin Plan amendment, and CEQA Checklist and Analysis Report provide the necessary information pursuant to State law to conclude that the TMDL Project and associated reasonably foreseeable methods of compliance will not have a significant adverse effect on the environment. This determination is based on best available information in an effort to fully inform the ainterested public and decision makers of potential environmental impacts. A "significant effect" on the environment is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." (California Code of Regulations, title 14, section 15382.)

- 27. Staff informed interested persons about the TMDLs for nitrogen compounds in the Santa Ynez River basin and draft SED through public outreach meetings with interested persons and public notice of the availability of the Basin Plan amendment and draft SED, and provided a 45-day written comment period. Notice of public hearing was given by publication in newspapers of general circulation within the project area and by emailing a copy of the notice to applicable government agencies and all persons requesting such notice. Relevant documents and notices were also made available on the Central Coast Water Board website.
- 28. Water Code section 189.73, which became effective on January 1, 2023, requires the Water Boards, during their planning processes, to conduct equitable, culturally relevant outreach when considering proposed discharges of waste that may have disproportionate impacts on water quality in disadvantaged communities or tribal communities. Although the TMDLs do not directly authorize discharges of waste, waste load allocations and load allocations must be implemented in waste discharge permits. The Central Coast Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities. Central Coast Water Board staff have determined that the TMDLs will not have disproportionate impacts on water quality in disadvantaged communities, as defined in AB 2108, or tribal communities.
- 29. Upon adoption of this Resolution No. R3-2023-0003, the Central Coast Water Board will request that the State Water Board and California Office of Administrative Law review and approve the Basin Plan amendment establishing the TMDLs for nitrogen compounds in the Santa Ynez River basin. This TMDL Project will become effective upon approval by the California Office of Administrative Law. USEPA must also approve this TMDL Project.
- 30. The Basin Plan amendment may have an effect on fish and wildlife. The Central Coast Water Board will, therefore, forward fee payments to the California Department of Fish and Wildlife pursuant to Fish and Game Code section 711.4.
- 31. The Basin Plan amendment meets the "Necessity" standard of the Administrative Procedures Act. (See Government Code, sections 11353 and 11349(a).) Federal regulations require that TMDLs be incorporated into the Water Quality Management Plan. The Central Coast Water Board's Basin Plan is the Central Coast Water Board's component of the Water Quality Management Plan, and the Basin Plan is how the Central Coast Water Board takes quasi-legislative planning actions. Moreover, this TMDL Project defines programs of implementation for existing water quality standards and is, therefore, appropriately a component of the Basin Plan under California Water Code section 13242. The necessity of developing this TMDL Project is established in the TMDL Project Report, the federal Clean Water Act section 303(d) List, and the data contained in the administrative record documenting the water quality impairments in the Santa Ynez River basin.

- 32. The Central Coast Water Board is establishing the TDML described in this TMDL Project through a Basin Plan amendment, and CEQA Certified Regulatory Program regulations apply (see California Code of Regulations, title 23, section 3775 and following). In accordance with California Code of Regulations, title 23, section 3777, the SED includes a reasonable range of economic factors for the reasonably foreseeable methods of compliance with this TMDL Project.
- 33. On June 22-23, 2023, the Central Coast Water Board held a public hearing to consider the Basin Plan amendment and SED and heard and considered all public comments and evidence in the record. Notice of the public hearing was given to all interested persons and published in accordance with California Water Code section 13244. Notice of updated public hearing information was given to all interested persons in accordance with Government Code section 1125.

#### THEREFORE, be it resolved that:

- 1. The Central Coast Water Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the Basin Plan amendment in Attachment A to this Resolution No. R3-2023-XXXX.
- 2. The Central Coast Water Board Executive Officer is directed to forward copies of the Basin Plan amendment to the State Water Board in accordance with the requirements of California Water Code section 13245.
- 3. The Central Coast Water Board requests that the State Water Board approve the Basin Plan amendment in accordance with the requirements of California Water Code sections 13245 and 13246 and forward the Basin Plan amendment to the Office of Administrative Law and to the USEPA for approval.
- 4. The Executive Officer or authorized designee is authorized to sign a Certificate of Fee Exemption or transmit payment of the applicable fee, as may be required, to the Department of Fish and Wildlife.
- 5. If, during the approval process, Central Coast Water Board staff, State Water Board staff, the State Water Board, or the California Office of Administrative Law determine that minor, non-substantive corrections to the language of the Basin Plan amendment are needed for clarity or consistency, the Executive Officer or their authorized designee may make such changes, and shall inform the Central Coast Water Board of any such changes.
- 6. The SED prepared by the Central Coast Water Board staff pursuant to California Public Resources Code section 21080.5 and California Code of Regulations, title 23, section 3775 and following are hereby approved and adopted.

I, Matthew T. Keeling, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Coast Region, on June 22-23, 2023.

Matthew T. Keeling, Executive Officer

Attachment A: Amendment to the Water Quality Control Plan for the Central Coastal Basin to Establish Total Maximum Daily Loads for Nitrogen Compounds in the Santa Ynez River Basin, Santa Barbara County, California.

# **California Regional Water Quality Control Board**

# **Central Coast Region**

# Attachment A to Resolution No. R3-2023-0003 Basin Plan Amendment

Proposed Amendment to the Water Quality Control Plan for the Central Coastal Basin to Establish Total Maximum Daily Loads for Nitrogen Compounds in the Santa Ynez River Basin, Santa Barbara County, California



#### 1 Attachment A to R3-2023-0003

#### Attachment A to Resolution No. R3-2023-0003

Revise the June 14, 2019 Water Quality Control Plan for the Central Coastal Basin (Basin Plan) as follows:

Amendment to the Water Quality Control Plan for the Central Coastal Basin to Establish Total Maximum Daily Loads for Nitrogen Compounds in the Santa Ynez River Basin, Santa Barbara County, California

Add the following to Chapter 4 after section 4.9.22: 4.9.23. Total Maximum Daily Loads (TMDLs) for Nitrogen Compounds in the Santa Ynez River Basin, Santa Barbara County, California

The California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) adopted these TMDLs on April 20, 2023.

These TMDLs were approved by:

The State Water Resources Control Board on:	_Date
The California Office of Administrative Law on:	_ Date

#### The U.S. Environmental Protection Agency on: Date

#### **Problem Statement**

Surface waters in the Santa Ynez River basin are impaired due to one or more of the following conditions: excessive concentrations of nitrogen compounds such as nitrate, total nitrogen, and un-ionized ammonia, and low dissolved oxygen. These surface waters do not meet the Basin Plan water quality objectives and therefore municipal and domestic water supply, groundwater recharge, and aquatic habitat beneficial uses are not protected.

Waterbodies identified as impaired in this TMDL Project include:

Lower Santa Ynez River from Floradale Road downstream to the confluence with the estuary: nitrate and un-ionized ammonia.

San Miguelito Creek from monitoring site 314MCM (treatment plant effluent discharge point) downstream to the Santa Ynez River: nitrate and un-ionized ammonia.

Sloans Canyon Creek, all reaches upstream of West Central Avenue downstream to the confluence with the Santa Ynez River un-ionized ammonia

#### **Controllable Water Quality Conditions**

In accordance with the Basin Plan, controllable water quality conditions shall be managed to conform to or achieve the water quality objectives and load and waste load allocations contained in this TMDL Project. The Basin Plan defines controllable water quality conditions as follows: *"Controllable water quality conditions are those actions or circumstances resulting from man's activities that may influence the quality of the waters of the State and that may be reasonably controlled."* (Basin Plan, June 2019 edition, chapter 3, Water Quality Objectives.)

#### **Compliance with Anti-degradation Policy**

State and federal anti-degradation policies require, in part, that where surface waters are of higher quality than necessary to protect beneficial uses, the high quality of those waters must be maintained unless otherwise provided by the policies.

Section 3.2 of the 2019 Basin Plan states that wherever the existing quality of water is better than the quality of water established in adopted water quality control policies (e.g., Basin Plan water quality objectives), such existing quality shall be maintained unless otherwise provided by the provisions of the State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (Anti-degradation Policy).

Compliance with anti-degradation requirements may be determined on the basis of trends in water quality in applicable waterbodies, consistent with the methodologies and criteria provided in section 3.10 of California's *Water Quality Control Policy for Developing California's Clean Water Act section 303(d) List* (California Listing Policy), as adopted September 30, 2004, by State Water Resources Control Board (State Water Board) Resolution No. 2004-0063, and amended on February 3, 2015, by State Water Board Resolution No. 2015-0005. Section 3.10 of the California Listing Policy explicitly addresses the anti-degradation component of water quality standards,<sup>1</sup> as defined in Code of Federal Regulations, title 40, part 131.12, and provides for the identification of declining water quality trends as a metric for compliance with anti-degradation requirements.

Section 3.10 of the California Listing Policy states that pollutant-specific water quality objectives need not be exceeded to be considered non-compliant with anti-degradation requirements: "A water segment shall be placed on the section 303(d) list if the water segment exhibits concentrations of pollutants or water body conditions for any listing factor that shows a trend of declining water quality standards attainment."

#### **Numeric Targets**

Numeric targets represent acceptable levels of pollutants that will result in the desired water quality conditions, as described in the TMDL Report. This TMDL Project identifies

<sup>&</sup>lt;sup>1</sup> Water quality standards are provisions of state or federal law that describe the desired condition of a waterbody or the level of protection established for such waters. These standards form a legal basis for controlling pollution entering the waters of the State. Water quality standards consist of three core components: designated uses of a waterbody, criteria to protect designated uses, and antidegradation requirements to protect existing uses and high quality/high value waters.

USEPA website: https://www.epa.gov/standards-water-body-health/what-are-water-quality-standards

numeric targets for constituents including nitrate, total nitrogen, and un-ionized ammonia as well as for nutrient-response indicators including dissolved oxygen, and chlorophyll a. When these nitrogen compound targets are met, the identified impaired streams can be removed from the 303(d) List. These targets are protective of municipal and domestic supply, groundwater recharge, and aquatic habitat beneficial uses. It is anticipated that nitrogen load reductions could have beneficial impacts on dissolved oxygen and chlorophyll a levels, warranting inclusion of these numeric targets as secondary water quality indicators in the TMDL Project.

The numeric targets and the TMDLs are based on the following:

Numeric target for nitrate (Basin Plan objective for drinking water, applicable to waterbodies designated as municipal and domestic supply (MUN) and groundwater recharge (GWR):

Nitrate as nitrogen concentration not to exceed 10 milligrams per liter (mg/L).

Numeric target for un-ionized ammonia (Basin Plan general objective for toxicity):

Un-ionized ammonia as nitrogen concentration not to exceed 0.025 mg/L.

Numeric target for total nitrogen (Basin Plan general objective for biostimulatory substances):

The Basin Plan contains the following narrative water quality objective for biostimulatory substances:

"Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses."

As described in in the TMDL Report, to help account for uncertainty concerning the risk of potential nutrient-related problems in sensitive downstream receiving water in the Santa Ynez River estuary, the numeric target and loading capacity for total nitrogen is: Total nitrogen concentration not to exceed 8 mg/L.

The technical basis for the derivation of this total nitrogen target is described in detail in the TMDL Report

Secondary numeric targets for nutrient-response indicators (dissolved oxygen and chlorophyll a):

For waterbodies designated as cold fresh water habitat (COLD) and spawning (SPWN) beneficial uses, the dissolved oxygen numeric targets is the same as Basin Plan numeric water quality objective which states that dissolved oxygen concentrations shall not be reduced below 7.0 mg/L at any time.

For waterbodies designated as warm fresh water habitat (WARM) beneficial use, the dissolved oxygen numeric targets is the same as Basin Plan numeric water quality objective which states that dissolved oxygen concentrations shall not be reduced below 5.0 mg/L at any time.

For waterbodies designated with any of the aquatic habitat beneficial uses, water column chlorophyll a concentrations shall not exceed 15 micrograms per liter (mcg/L).

### **Source Analysis**

Sources of nitrogen compound discharges to surface waters within the Santa Ynez River basin include treated municipal wastewater, fertilizer application on irrigated cropland, urban stormwater runoff, industrial and construction stormwater runoff, manure from livestock and domestic animals, and natural sources including atmospheric deposition.

Treated municipal wastewater effluent has historically been a major source of nitrate in the lower Santa Ynez River downstream of the City of Lompoc Regional Wastewater Treatment Plant. Nitrogen is a common pollutant in municipal wastewater effluent. The City of Lompoc completed major upgrades to the Regional Wastewater Treatment Plant in November 2009, resulting in significant improvements to nitrate and total nitrogen concentrations in the lower Santa Ynez River.

Nutrient water quality impairments and the highest observed nutrient concentrations in the Santa Ynez River basin are identified only in the lowermost portion of the Santa Ynez River, downstream of the Lompoc Regional Wastewater Treatment Plant. Based on available data, discharges of treated wastewater from municipal wastewater treatment facilities are the most significant controllable source of nitrogen compounds in the lowermost Santa Ynez River.

#### **TMDL Loading Capacities**

Table 1 presents the TMDL loading capacities for nitrogen compounds in streams of the Santa Ynez River basin. In the context of this TMDL project, streams refers to any body of water (such as a river, creek, brook, slough, canal, ditch, ephemeral drainage) within the Santa Ynez River basin.

Loading Primary beneficial Pollutant **Stream reaches** uses protected capacity MUN, GWR Nitrate as N (NO<sub>3</sub>-N) 10 mg/L All stream reaches Aquatic habitat Un-ionized ammonia as All stream reaches 0.025 mg/L (COLD, WARM,  $N(NH_3-N)$ SPWN) Santa Ynez River at Floradale Aquatic habitat Road downstream to the (COLD, WARM, Total nitrogen (N) 8 mg/L confluence with the Santa Ynez SPWN) River estuary

Table 1. Loading capacities for nitrogen compounds in stream reaches of the Santa Ynez River basin.

#### Allocations

TMDLs determine a pollutant loading capacity and allocate load reductions necessary to achieve that target to point and nonpoint sources of the pollutant. Point source discharges, such as urban stormwater (municipal separate storm sewer system, i.e. MS4), are regulated with national pollutant discharge elimination system (NPDES) permits and receive waste load allocations, while irrigated agricultural discharges are considered nonpoint sources and receive load allocations.

Table 2 presents the waste load allocations assigned to responsible parties (for point source discharges) and Table 3 tabulates the load allocations assigned to responsible parties (for nonpoint source discharges). These allocations are equal to the TMDLs and are assigned as receiving water allocations.

#### 6 Attachment A to R3-2023-0003

Table 2. Waste load allocation (WLA) table: NPDES-permitted facilities shall attain the following waste load allocations in receiving surface waters of the State.<sup>A,B,C</sup>

Stream Reaches <sup>c</sup>	Party Responsible for WLA & NPDES permit number <sup>D</sup>	Receiving Water Nitrate as N WLA	Receiving Water Un- ionized ammonia (NH₃ as N) WLA	Receiving Water Total Nitrogen WLA
Santa Ynez River, all reaches and tributaries upstream of the river's confluence with San Miguelito Creek which receive MS4, industrial, and construction stormwater discharges and NPDES wastewater discharges.	City of Lompoc (Storm drain discharges to municipal separate storm sewer system – MS4s) Storm Water General Permit NPDES No. CAS000004 County of Santa Barbara (Storm drain discharges to MS4s) Storm Water General Permit NPDES No. CAS000004 Santa Ynez Band of Chumash Indians Wastewater Treatment Plant NPDES Permit No. CA0050008 Industrial stormwater general permit (storm drain discharges from industrial facilities) NPDES No. CAS000001 Construction stormwater general permit (storm drain discharges from construction operations) NPDES No. CAS000002	10 mg/L	0.025 mg/L	Not applicable

Stream Reaches⁰	Party Responsible for WLA & NPDES permit number <sup>D</sup>	Receiving Water Nitrate as N WLA	Receiving Water Un- ionized ammonia (NH₃ as N) WLA	Receiving Water Total Nitrogen WLA
San Miguelito Creek and Lower Santa Ynez River and all tributaries from downstream of the river's confluence with San Miguelito Creek to the estuary which receive MS4, industrial, and construction stormwater discharges and NPDES wastewater discharges.	City of Lompoc Regional Wastewater Reclamation Plant NPDES No. CA0048127 City of Lompoc (Storm drain discharges to MS4s) Storm Water Permit NPDES No. CAS000004 County of Santa Barbara (Storm drain discharges to MS4s) Storm Water General Permit NPDES No. CAS000004	10 mg/L	0.025 mg/L	8 mg/L

<sup>A</sup> Federal and state anti-degradation requirements apply to all waste load and load allocations. <sup>B</sup> Achievement of final waste load and load allocations to be determined on the basis of the number of measured exceedances and/or other criteria set forth in Section 4 of the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List,* September 2004, amended February 2015 (Listing Policy).

<sup>c</sup> Stream reach name includes all reaches of surface waterbodies and all tributary reaches; "stream reaches" refers to any body of water (such as a river, creek, brook, slough, canal, ditch, ephemeral drainage) within the Santa Ynez River basin.

<sup>D</sup> Current permit numbers are shown. WLAs apply to the current permit or future permits regulating the discharge of waste from these responsible parties.

#### 8 Attachment A to R3-2023-0003

Table 3. Load allocation (LA) table: nonpoint sources must attain the following load allocations in receiving surface waters.<sup>A,B,C,D</sup>

Stream Reaches <sup>c</sup>	Party Responsible for LA & Waste Discharge Requirements <sup>D</sup>	Receiving Water Nitrate as N LA	Receiving Water Unionized ammonia (NH₃ as N) as N LA	Receiving Water Total Nitrogen LA
Santa Ynez River, all reaches and tributaries upstream of the river's confluence with San Miguelito Creek receiving nonpoint source discharges.	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands) Agricultural Order No. R3-2021-0040) Owners/operators of livestock and domestic animal operations (Discharges from grazing lands and livestock operations) Natural background sources	10 mg/L	0.025 mg/L	Not applicable
San Miguelito Creek and Lower Santa Ynez River and all tributaries from downstream of the river's confluence with San Miguelito Creek to the estuary receiving nonpoint source discharges.	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands) Agricultural Order No. R3-2021-0040) Owners/operators of livestock and domestic animal operations (Discharges from grazing lands and livestock operations) Natural background sources	10 mg/L	0.025 mg/L	8 mg/L

<sup>A</sup> Federal and state anti-degradation requirements apply to all waste load and load allocations. <sup>B</sup> Achievement of final waste load and load allocations to be determined on the basis of the number of measured exceedances and/or other criteria set forth in Section 4 of the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List, September 2004, amended February 2015 (Listing Policy).

<sup>c</sup> Stream reach name includes all reaches of surface waterbodies and all tributary reaches; "stream reaches" refers to any body of water (such as a river, creek, brook, slough, canal, ditch, ephemeral drainage) within the Santa Ynez River basin.

<sup>D</sup> Current permit numbers are shown. LAs apply to the current permit or future permits regulating the discharge of waste from these responsible parties.

# Margin of Safety

The Clean Water Act and federal regulations require that TMDLs provide a margin of safety to account for uncertainty concerning the relationship between pollution controls and water quality responses (see Code Federal Regulations Title 40, Part 130 Section 130.7(c)(1)). These proposed TMDLs provide both implicit and explicit margins of safety to account for several types of uncertainty in the analysis. This section discusses analytical factors that are uncertain and describes how the TMDLs provide the requisite margin of safety.

## Relationship between algae growth, nutrient loading, and downstream impacts

There currently is no convincing evidence of excessive algal growth in the Santa Ynez River being driven by elevated nutrient loads. Chlorophyl a and floating algal mats are typically below threshold values. Impacts of elevated nutrient loads to the algal and aquatic plant communities in sensitive downstream coastal confluence waters is uncertain based on the information that is available at this time. The Santa Ynez River estuary is downstream of the most downstream monitoring location (Santa Ynez River at 13th Street), and consequently, data was unavailable for the estuary. This estuary is designated by the California Coastal Commission as a Critical Coastal Area (CCA). CCAs are designations for high resource-value coastal waters. The Santa Ynez estuary's administrative status as a CCA merits the consideration of protecting the estuary from upstream nutrient enrichment and potential biostimulation.

The TMDLs account for the uncertainty of biostimulation risk in the estuary by incorporating a 20% margin of safety, setting the total nitrogen numeric target at 8 mg/L instead of the conventional 10 mg/L target intended to protect human health.

#### Implementation

# NPDES-Permitted Wastewater Treatment Facilities:

Based on available data, discharges of treated wastewater from municipal wastewater treatment facilities are expected to be the most significant controllable source of nitrogen compounds in the lowermost Santa Ynez River, generally associated with discharges from the Lompoc Regional wastewater treatment plant. According to the U.S. Environmental Protection Agency and the State Water Resources Control Board, all NPDES-permitted point sources identified in a TMDL must be assigned a waste load allocation, even if their current load to receiving waters is zero. Therefore, all NPDES-permitted wastewater treatment facilities in the River basin are assigned waste load allocations, which are implemented in the NPDES permit as effluent limitations.

The Lompoc Regional Wastewater Treatment Plant (NPDES Permit No. CA004812) is permitted to discharge treated wastewater to San Miguelito Creek, which flows into the Santa Ynez River just upstream of the Floradale Road bridge. The Santa Ynez River below Floradale Road is impaired by nitrogen compounds.

The Santa Ynez Band of Chumash Indians is authorized by U.S. EPA Region 9 to discharge treated wastewater from the Santa Ynez Band of Chumash Indians Wastewater Treatment Plant (NPDES Permit No. CA0050008) to Zanja de Cota Creek.

Permits issued to the identified wastewater treatment plants will implement the TMDLs and include effluent water limitations for surface water discharges. Future revisions to effluent limitations in any NPDES permit "shall" be "consistent with the assumptions and requirements of any available wasteload allocations." (40 C.F.R. section 122.44(d)(1)(vii)(B).) Therefore, NPDES wastewater permits will implement the waste load allocation of 8 mg/L total nitrogen in the first permit renewal after the TMDL allocation is in effect.

## Irrigated Agricultural Land Discharges:

Based on available information, it is generally expected that owners and operators of irrigated croplands are currently achieving proposed nitrate and total nitrogen load allocations. An un-ionized ammonia impairment on Sloans Canyon Creek is based on one year of data from 2008. Given the vintage of this data, additional monitoring on this creek is recommended to confirm the status of water quality standards attainment.

To maintain existing water quality and prevent any further water quality degradation, owners and operators of irrigated agricultural land used for commercial crop production must comply with the Central Coast Water Board's Order No. R3-2021-0040, General Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order), which establishes the following surface receiving water limits currently applicable to discharges to the Santa Ynez Basin: 10 mg/L for nitrate as N, and 0.025 mg/L for un-ionized ammonia. These limits are identical to the load allocations in these TMDLs. Any future modification or replacements of the Agricultural Order will implement the TMDLs, such as establishing the 8 mg/L total nitrogen load allocation as a receiving water limit and the associated compliance date.

Current requirements in the Agricultural Order that will achieve and maintain the load allocations include:

- A. Surface receiving water limits and compliance dates.<sup>2</sup>
- B. Surface receiving water quality monitoring and reporting, follow-up monitoring and reporting and trend monitoring to meet interim milestones and limits, and the potential for ranch-level surface discharge monitoring and reporting where water quality issues persist, or applicable limits are not met by their compliance dates.
- C. Fertilizer nitrogen application targets / limits, and nitrogen discharge targets / limits.
- D. Total nitrogen applied and total nitrogen removed reporting.
- E. Irrigation and nutrient management planning, management practice implementation and assessment, and reporting on outcomes that address both groundwater and surface water discharges.

<sup>&</sup>lt;sup>2</sup> The Agricultural Order establishes surface receiving water limits for owners and operators of irrigated lands in TMDL project areas that are equivalent to the applicable load allocations.

- F. Protection of existing, naturally occurring or established, native riparian vegetative cover and monitoring and reporting on average width and length of riparian areas.
- G. Proper destruction of permanently inactive groundwater wells.
- H. Proper handling, storage, and disposal of fertilizers.

More information may be obtained during the implementation phase of these TMDLs to further assess the level of nutrient contributions to surface waters of the State from these source categories, and to identify any actions needed to reduce nutrient loading.

<u>Storm Drain Discharges to Municipal Separate Storm Sewer Systems (MS4s):</u> Based on available information, it is generally expected MS4 entities (County of Santa Barbara, City of Lompoc, City of Solvang, City of Buellton) are currently achieving proposed nitrogen compounds waste load allocations. As such, at this time compliance with existing or future MS4 permits are expected to show continued attainment of waste load allocations for this source category.

To maintain existing water quality and prevent any further water quality degradation, Santa Barbara County is subject to the General Permit for Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Water Quality (WQ) Order 2013-0001-DWQ NPDES NO. CAS000004, as amended by Order WQ 2015-0133-EXEC, Order WQ 2016-0069-EXEC, WQ Order 2017-XXXX-DWQ, Order WQ 2018-0001-EXEC, and Order WQ 2018-0007-EXEC) (Phase II Small MS4 Permit) or any future NPDES permits regulating the County's MS4 discharges. Any future modifications or replacements of the General Permit will implement TMDLs, such as establishing the 8 mg/L total nitrogen receiving water limit for discharges to San Miguelito Creek and the Lower Santa Ynez River and its tributaries downstream of the confluence with San Miguelito Creek, and incorporate the associated compliance date.

Data and information evaluated to develop these TMDLs do not conclusively demonstrate that stormwater discharges from all MS4 jurisdictions are meeting proposed waste load allocations. More information may be obtained during the implementation phase of these TMDLs to further assess the level of nutrient contributions to surface waters of the State from these source categories, and to identify any actions needed to reduce nutrient loading.

#### Industrial and Construction Stormwater Discharges:

NPDES-permitted industrial facilities and construction operators are expected to meet the proposed waste load allocations through their existing permits or at the time of the next permit renewal after the effective date of the TMDL. To maintain existing water quality and prevent any further water quality degradation, these permitted industrial facilities and construction operators shall continue to implement and comply with the requirements of the statewide General Permit for Stormwater Discharges Associated with Industrial Activities (Order No.97-03-DWQ, as amended by Order No. 2014-0057-DWQ, NPDES No. CAS000001) or the statewide General Permit for Storm Water Attachment A to Resolution No. R3-2023-0003

Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009, as amended by Order No. 2012-0006-DWQ, NPDES No. CAS000002), or any subsequent Industrial or Construction General Permits.

Data and information evaluated to develop these TMDLs do not conclusively demonstrate that stormwater discharges from all industrial and construction operations are meeting proposed waste load allocations. More information may be obtained during the implementation phase of these TMDLs to further assess the level of nutrient contributions to surface waters from these source categories, and to identify any actions needed to reduce nutrient loading.

#### Livestock and Domestic Animal Operations

Based on available information, it is generally expected that owners and operators of livestock and domestic animals on grazing lands or in rural residential areas are currently achieving proposed nitrogen compounds load allocations. As such, new regulatory measures and formal regulatory oversight are not warranted for this source category.

To maintain existing water quality and prevent any further water quality degradation, owners and operators of unconfined livestock on rangelands or confined livestock and domestic animals in rural residential areas should begin or continue to self-assess, selfmonitor, and make animal management and manure management decisions which comport with accepted rangeland management practices or manure management practices.

It should be noted that information developed in this TMDL Report does not conclusively demonstrate that discharges from all livestock facilities are meeting proposed load allocations. More information may be obtained during the implementation phase of these TMDLs to further assess the level of nutrient contributions to surface waters from these source categories, and to identify any actions needed to reduce nutrient loading.

#### **Attainment Schedule for Allocations**

Monitoring data from surface waters of the State in the Santa Ynez River basin confirm relatively low concentrations of nitrogen compounds, with the exception of the lower Santa Ynez River. The lower Santa Ynez River data confirm elevated concentrations of nitrate and total nitrogen downstream of the Lompoc Regional Wastewater Treatment Plant. Upgrades to the wastewater treatment plant in 2009 resulted in improved nitrogen water quality (i.e., reduced nitrogen concentrations). As such, implementation and attainment of waste load allocations and load allocations are not expected to require an extended attainment time schedule.

Within five years after the Office of Administrative Law (OAL) approval date of this Basin Plan amendment, implementing parties will achieve the nitrogen compounds waste load allocations and load allocations (Tables 2 and 3); or meet all regulatory and policy requirements necessary for removing the impaired waters from the Clean Water Act section 303(d) List of impaired waters. The requirements and attainment dates are listed below.

Maintain existing nitrogen compounds levels in stream reaches where existing water quality is better than TMDL numeric targets, unless otherwise consistent with the anti-degradation policy.

Attainment of the nitrate and un-ionized ammonia allocations within five years of the OAL approval date will be sufficient to demonstrate compliance with human health and aquatic toxicity water quality objectives in the lower Santa Ynez River, its tributaries, and the downstream estuary.

Attainment of the total nitrogen allocations within five years of the OAL approval date will be sufficient to demonstrate a reduction in the risk of unsatisfactory biostimulatory conditions to the lower Santa Ynez River, its tributaries, and the downstream estuary.

# Tracking and Evaluation

After the Basin Plan amendment comprising this TMDL project is approved by OAL, the Central Coast Water Board will periodically review implementation actions, monitoring results, and responsible parties' evaluations of their progress toward achieving their allocations. The Central Coast Water Board will use updates to the federal Clean Water Act section 303(d) List, annual reports from dischargers required to submit such reports, nonpoint source program monitoring data and reports, evaluations submitted by responsible parties, and other available information to determine progress toward implementing required actions and achieving the allocations and numeric targets.

The Agricultural Order Monitoring and Reporting Program currently requires third party monitoring for nitrogen compounds in the Santa Ynez River basin once per month and develops an annual report summarizing those data compared to the water quality objectives and TMDLs established as numeric limits in the Agricultural Order. Central Coast Water Board TMDL program staff has concluded that the existing monitoring program's monitoring locations and frequency are sufficient to help evaluate compliance with load allocations.

Central Coast Ambient Monitoring Program (CCAMP) monitors nutrients and nutrientrelated compounds in the Santa Ynez River basin as part of its regional ambient monitoring program. Central Coast Water Board TMDL program staff conclude that the existing CCAMP monitoring locations and frequencies are sufficient to help evaluate compliance with load allocations.

The Lompoc Regional Wastewater facility conducts water quality monitoring pursuant to NPDES Permit No. CA004812 which became effective on May 1, 2022. This permit

nitrogen effluent limitations and associated monitoring and reporting requirements to ensure total nitrogen discharges do not cause or contribute to an increased risk of biostimulation in downstream waters.

Central Coast Water Board staff may conclude, in future reviews, that ongoing implementation efforts are insufficient to ultimately achieve the allocations and numeric targets. If this occurs, Central Coast Water Board staff will recommend revisions to this TMDL Implementation Plan. Alternatively, Central Coast Water Board staff may conclude and articulate in the reviews that implementation efforts are likely to result in achieving the allocations and numeric targets, in which case existing and anticipated implementation efforts should continue. When allocations and/or numeric targets are met, Central Coast Water Board staff will recommend the waterbody be removed from the 303(d) List.