State of California California Regional Water Quality Control Board, Los Angeles Region

TENTATIVE RESOLUTION NO. 03-XX August 7, 2003

Amendment to the Water Quality Control Plan for the Los Angeles Region to include a TMDL for Nitrogen Compounds in the Santa Clara River

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:

- 1. The federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board (Regional Board) to develop water quality standards which include beneficial use designations and criteria to protect beneficial uses for each water body found within its region.
- 2. The Regional Board carries out its CWA responsibilities through California's Porter-Cologne Water Quality Control Act and establishes water quality objectives designed to protect beneficial uses contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan).
- 3. Section 303(d) of the CWA requires states to identify and to prepare a list of water bodies that do not meet water quality standards and then to establish load allocations, waste load allocations, and total maximum daily loads (TMDL) for each water body-pollutant pairing that will ensure attainment of water quality standards and then to incorporate those loads into the states' water quality control plans.
- 4. Santa Clara River was listed on California's 1998 section 303(d) list, due to impairment for nitrogen compounds and their effects that do not protect the most sensitive beneficial uses of the water body. California's 2002 section 303(d) list is presently awaiting final approval by the U.S. Environmental Protection Agency (USEPA), but the State and USEPA have proposed listing the Santa Clara River for nitrogen compound impairments.
- 5. A consent decree between the U.S. Environmental Protection Agency (USEPA), Heal the Bay, Inc., and BayKeeper, Inc. was approved on March 22, 1999. The court order directs the USEPA to complete TMDLs for all the Los Angeles Region's impaired waters within 13 years.
- 6. The elements of a TMDL are described in 40 CFR sections 130.2 and 130.7 and section 303(d) of the CWA, as well as in USEPA guidance documents (e.g., USEPA, 1991). A TMDL is defined as "the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background." (40 CFR § 130.2.) Regulations further stipulate that TMDLs must be set at "levels

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necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." (40 CFR § 130.7(c)(1).) The regulations in 40 CFR section 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters.

- 7. Upon establishment of TMDLs by the State or USEPA, the State is required to incorporate the TMDLs along with appropriate implementation measures into the State Water Quality Management Plan. (40 CFR §§ 130.6(c)(1), 130.7.) The Basin Plan, and applicable statewide plans serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Board.
- 8. The Santa Clara River is located in Los Angeles and Ventura Counties and is the largest river system in the Los Angeles Region that remains in a relatively natural state. It drains from the east beginning in the Transverse Ranges below Soledad Pass through the Santa Clara River and its major tributaries, Castaic, Piru, Hopper, Sespe and Santa Paula Creeks to Pacific Ocean. The proposed TMDL addresses documented water quality impairments by nitrogen compounds.
- 9. The Regional Board's goal in establishing the above-mentioned TMDL is to maintain the warm water fish and wildlife habitat (WARM, WILD), groundwater recharge (GWR) and others beneficial uses of Santa Clara River as established in Basin Plan. Additionally, ammonia is known to cause toxicity to aquatic organisms.
- 10. Interested persons and the public have had reasonable opportunity to participate in review of the amendment to the Basin Plan. Efforts to solicit public review and comment include more than eighteen public workshops held between February 11, 2002 and June 12, 2003; public notification 45 days preceding the Board hearing; and responses from the Regional Board staff to oral and written comments received from the public.
- 11. The amendment is consistent with the State Antidegradation Policy (State Board Resolution No. 68-16), in that the changes to water quality objectives (i) consider maximum benefits to the people of the state, (ii) will not unreasonably affect present and anticipated beneficial use of waters, and (iii) will not result in water quality less than that prescribed in policies. Likewise, the amendment is consistent with the federal Antidegradation Policy. (See 40 CFR § 131.12.)
- 12. The basin planning process has been certified as functionally equivalent to the California Environmental Quality Act requirements for preparing environmental documents and is, therefore, exempt from those requirements (Public Resources Code, Section 21000 et seq.), and the required environmental documentation and CEQA environmental checklist have been prepared.

- 13. The Regional Board staff conducted a CEQA scoping meeting on June 12, 2003, to allow interested persons to comment on the environmental issues that should be addressed when considering the Basin Plan amendment.
- 14. In developing the Basin Plan amendment, staff considered alternatives to the Basin Plan amendment considered by the Regional Board. Among the alternatives considered were (1) a no action alternative, (2) an implementation program that would be shorter than that prescribed by the Basin Plan amendment, and (3) an implementation program that would be longer than that prescribed by the Basin Plan amendment. Staff also considered alternatives proposed by interested persons. These alternatives are set forth in the administrative record, staff proposal, and the response to comments.
- 15. The proposed amendment results in no potential for adverse effect (de minimis finding), either individually or cumulatively, on wildlife.
- 16. The regulatory action meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).
- 17. The Basin Plan amendment incorporating a TMDL for nitrogen compounds for the Santa Clara River must be submitted for review and approval by the State Water Resources Control Board (State Board), the State Office of Administrative Law (OAL), and the US Environmental Protection Agency (USEPA). The Basin Plan amendment will become effective upon approval by OAL and USEPA. A Notice of Decision will be filed.

THEREFORE, be it resolved that pursuant to Section 13240 and 13242 of the Water Code, the Regional Board hereby amends the Basin Plan as follows:

- 1. Pursuant to sections 13240 and 13242 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendment to Chapter 7 the Water Quality Control Plan for the Los Angeles Region to incorporate the elements of the Santa Clara River Nitrogen Compounds TMDL as set forth in Attachment A hereto.
- 2. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Board in accordance with the requirements of section 13245 of the California Water Code.
- 3. The Regional Board requests that the State Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to OAL and the USEPA.
- 4. If during its approval process the SWRCB or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.

- 5. The Executive Officer is authorized to sign a Certificate of Fee Exemption.
- 6. Amend the text in the Basin Plan, Plans and Policies (Chapter 5) to add:
 - "Resolution No. 03-XX. Adopted [Insert Date].
 'Amendment to include a TMDL for Nitrogen Compounds for Santa Clara River'
 The resolution proposes a TMDL for nitrogen compounds in the Santa Clara River."
- 7. The Basin Plan amendment set forth in Attachment A shall only become effective if the water quality objectives revised by Regional Board Resolution 2002-011, or equivalent water quality objectives, have been approved by the USEPA, and are consistent with the TMDL.
- I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on August 7, 2003.

Dennis A. Dickerson Executive Officer TENTATIV

Attachment A to Resolution No. 03-XX

Proposed Amendment to the Water Quality Control Plan – Los Angeles Region

to Incorporate the

Santa Clara River Nitrogen Compounds TMDL

Proposed for adoption by the California Regional Water Quality Control Board, Los Angeles Region on August 7, 2003.

Amendments

Table of Contents Add:
Chapter 7. Total Maximum Daily Loads (TMDLs)
7-9 Santa Clara River Nitrogen Compounds TMDL
List of Figures, Tables, and Inserts Add:
Chapter 7. Total Maximum Daily Loads (TMDLs) Tables
7-9 Santa Clara River Nitrogen Compounds TMDL 7-9.1. Santa Clara River Nitrogen Compounds TMDL: Elements 7-9.2. Santa Clara River Nitrogen Compounds TMDL: Implementation Schedule
Chapter 7. Total Maximum Daily Loads (TMDLs) Santa Clara River Nitrogen Compounds TMDL
This TMDL was adopted by:
The Regional Water Quality Control Board on [Insert Date].
This TMDL was approved by:
The State Water Resources Control Board on [Insert Date]. The Office of Administrative Law on [Insert Date]. The U.S. Environmental Protection Agency on [Insert Date].

The following table describes the key elements of this TMDL.

Table 7-9.1.	Santa Clar	a River Nitroger	Compounds	TMDL: Elements
		·· · · · · //		

Element	Inta Clara River Nitrogen Compounds TMDL: Elements Santa Clara River Nitrogen Compounds TMDL		
Numeric Target (Interpretation of the numeric water quality objective, used to calculate the load allocations)			
Toad anocations)	Reach Reach 8 Reach 7 above Valencia Reach 7 below Valencia Reach 7 at County Line Reach 3 above Santa Paula Reach 3 at Santa Paula Reach 3 below Santa Paula NO ₃ -N + NO ₂ -N 9.0 mg/L in Reach 8 4.5 mg/L in Reaches 3 and 7 Narrative objectives for biostimu on the Basin Plan. The TMDL a will implement the narrative objective includes monitoring and special implement the narrative objective	One-hour NT (mg-N/L) 14.8 4.8 5.5 3.4 2.4 2.4 2.2 states indicates the ectives. The Implestudies to verify the	Thirty-day NT (mg-N/L) 3.2 2.0 2.0 1.2 1.9 1.9 1.7 and toxicity are based hat the numeric targets ementation Plan
Source Analysis	The principal source of ammonia River is discharges from the Sau Plants (WRPs) and the Fillmore	n, nitrite, and nitragus and Valencia	Water Reclamation

Element	Santa Clara River Nitrogen Compounds TMDL		
	Treatment Works (POTW	· —	_
	and groundwater discharge may also contribute nitrate loads. Further		
	evaluation of these sources is set forth in the Implementation Plan.		
Linkage Analysis	Linkage between nitrogen sources and the in-stream water quality was		
	established through hydrodynamic and water quality models. The		
	Watershed Analysis Risk Management Framework was used to model the		
	hydrodynamic characteristics and water quality of the Santa Clara River.		
	The Linkage Analysis demonstrated that major point sources were the		
	primary contributors to in-stream ammonia and nitrate plus nitrite loads.		
	Nonpoint sources and minor point sources contributed a much smaller		
W74-11	fraction of these in-stream	loads.	
Wasteload	Major point sources:		
Allocations (for	Concentration based west	aloods are allocated to a	major point sources of
point sources)	Concentration-based waste ammonia in Reach 3, which		· -
	concentration-based waste		
	sources of nitrite+nitrate in		<i>3</i> I
	and Saugus WRPs. Based	,	
	ammonia WLAs for the m	•	·
	Implementation Plan prov	-	
	Regional Board based on		•
	data 5 years after the effect	,	*
	• Ammonia-nitrogen (NH ₃ -N):		
	POTW One-hour WLA Thirty-day WLA		
	Saugus WRP	5.6 mg/L	2.0 mg/L
	Valencia WRP	5.2 mg/L	1.75 mg/L
	Fillmore POTW	4.2 mg/L	2.0 mg/L
	Santa Paula POTW	4.2 mg/L	2.0 mg/L
		C	
	Although there is no 303(d) listing for Ammonia in Reaches 7 and 8,		
	the TMDL analysis shows that the POTWs will be discharging at no		
	more than 2.0 mg-N/L in Reach 8 and 1.75 mg-N/L in Reach 7, to		
	achieve the nitrite + nitrate numerical targets for each of these reaches.		
	• Nitrate-nitrogen (NO ₃ -N) + Nitrite-nitrogen (NO ₂ -N):		
	POTW Saugus WRP		N+NO3-N
	Valencia WRP	0.9 mg/L 7.1 m 0.9 mg/L 6.8 m	_
	v alchera vv Ki	0.7 mg/L 0.6 m	15/1

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Element	Santa Clara River Nitrogen Compounds TMDL		
	Minor Point Sources:		
	Concentration-based wasteloads are allocated to minor discharges enrolled under NPDES or WDR permits. The allocations for minor point sources are based on the water quality objectives for ammonia, nitrite, nitrate and nitrite+nitrate. For minor dischargers discharging into Reach 7, the WLA for nitrate+nitrite is 6.8 mg/L. For minor dischargers discharging into Reach 3, the thirty-day WLA for ammonia is 2.0 mg/L and the one hour WLA for ammonia is 4.2 mg/L; the WLA for nitrate+nitrite is 8.1 mg/L.		
	MS4 and Stormwater Sources:		
	Concentration-based wasteloads are allocated to municipal, industrial and construction stormwater sources regulated under NPDES permits. The allocations for minor stormwater are based on the water quality objectives for ammonia, nitrite, and nitrate. For stormwater permittees discharging into Reach 7, the thirty-day WLA for ammonia is 1.75 mg/L and the one-hour WLA for ammonia is 5.2 mg/L; the WLA for nitrate+nitrite is 6.8 mg/L. For minor dischargers discharging into Reach 3, the thirty-day WLA for ammonia is 2.0 mg/L and the one-hour WLA for ammonia is 4.2 mg/L; the WLA for nitrate+nitrite is 8.1 mg/L.		
Load Allocation	Concentration-based loads for nitrogen compounds are allocated for		
(for nonpoint sources)	nonpoint sources. For nonpoint sources discharging to Reach 7, the ammonia + nitrate + nitrite (NH ₃ -N + NO ₂ -N + NO ₃ -N) load is 8.5 mg-N/L. For non-point sources discharging into other reaches of the Santa Clara River the ammonia + nitrate + nitrite (NH ₃ -N + NO ₂ -N + NO ₃ -N)loads are 10 mg-N/L. Monitoring is established in the TMDL Implementation Plan to verify the nitrogen nonpoint source contributions from agricultural and urban runoff and groundwater discharge.		
Implementation	 Ammonia, nitrite, and nitrate reductions will be regulated through effluent limits prescribed in POTW and minor point source NPDES Permits, Best Management Practices required in NPDES MS4 Permits, and SWRCB Management Measures for non point source discharges. Refer to Table 29 of this document for the Implementation Schedule The Implementation Plan includes upgrades to the WRPs and POTWs discharging to Santa Clara River for removal of ammonia, nitrate, and nitrite. To allow time for completion of the nitrification/denitrification facilities and/or modifications of existing nitrification/denitrification facilities which are integral to this TMDL, the amendment to the Basin Plan made by this TMDL allows for higher interim loads which the Regional Board (at its discretion) can incorporate into NPDES permits as interim effluent limits for a period not to exceed five years from the effective date of the TMDL, as follows: 		

Element	Santa Clara River Nitro	ogen Compounds TMD	L	
	I POTW Saugus WRP Valencia WRP	nterim Limits for Nitrate + Nitrite Daily Maximum 10 mg-N/L 10 mg-N/L		
	Interim Limits for Ammonia + Nitrate +Nitrite POTW Monthly Average Daily Maximum Fillmore WRP 32.8 mg-N/L 38.9 mg-N/L Santa Paula WRP 41.8 mg-N/L 49.0 mg-N/L			
	The Implementation Plan evaluate the effectiveness nitrate on implementing rand toxicity. Ammonia, n through effluent limits propractices for MS4 and no The Implementation Plan regarding water quality st	e Implementation Plan also includes special studies and monitoring to luate the effectiveness of nitrogen reductions for ammonia, nitrite, and rate on implementing narrative objectives for biostimulatory substances toxicity. Ammonia, nitrite, and nitrate reductions will be regulated ough effluent limits prescribed in NPDES permits and best management ctices for MS4 and non point source discharges. Implementation Plan also includes special studies to address issues arding water quality standards and site specific objectives and a consideration of waste load allocations based on monitoring data and		
Margin of Safety	An explicit margin of safety of 10% of the nitrogen loads is allocated to address uncertainty in the source and linkage analyses. In addition, an implicit margin of safety is incorporated through conservative model assumptions and statistical analysis. Impairment is typically based on exceeding the single sample objective in more than 10% of the samples. By incorporating an implicit margin of safety, the number of samples exceeding the water quality objective will be less than 10% of the samples measured in-stream.			
Future Growth	Plans for the upper watershed include urban growth which will expand the capacity of the Valencia Water Reclamation Plan, construction of an additional water reclamation plant, and increased use of reclaimed water. Wasteload and load allocations will be developed for these new sources as required to implement appropriate water quality objectives for ammonia, nitrite, nitrate, and nitrite+nitrate.			
Seasonal Variations and Critical Conditions	The critical condition ide condition defined as the 7 year are identified as a magnificate flow is available also indicates a critical codry period. The implemental critical condition	7Q10. In addition, the drore critical condition for to dilute effluent discharge and the first rentation plan includes more	riest six months of the r nutrients because less ge. The linkage analysis najor storm event after a	

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Table 7-9.2. Implementation Schedule

	Implementation Tasks, Milestones and Provisions	Responsible Party	Completion Date
1.	Apply interim limits for NH ₃ -N and NO ₃ -N + NO ₂ -N to Fillmore and Santa Paula POTWs.	Fillmore and Santa Paula POTWs;	Effective Date of TMDL
2.	Apply interim limits for NO ₃ to Saugus and Valencia WRPs.	NPDES and WDR permittees	
3.	Apply Wasteload Allocations (WLAs) to minor point source dischargers and MS4 permittees.		
4.	Include monitoring for nitrogen compounds in NPDES and WDR permits for minor dischargers as permits are renewed.		
5.	Submittal of Work Plans by Los Angeles County and Ventura County MS4 permittees to estimate nitrogen loadings associated with runoff loads from the storm sewer system for approval by the Regional Board's Executive Officer. If, as a result of carrying out the Work Plan, ammonia or nitrogen loads from the storm sewer system are found to be a significant source, the Work Plan will be modified to include determination of the effectiveness of BMPs in addressing nutrient loading in runoff from urban and suburban areas,	Los Angeles and Ventura Counties MS4 Permittees	1 year after the Effective Date of TMDL
6.	Submittal of Work Plan by major NPDES permittees to assess and monitor the receiving water quality for organic enrichment and other nitrogen effects in the Santa Clara River for approval by the Regional Board's Executive Officer. The Work Plan will include evaluation of the effectiveness of the POTW in meeting WLAs.	Cities of Fillmore and Santa Paula, and County Sanitation Districts of Los Angeles County	1 year after Effective Date of TMDL
7.	Submittal of special studies Work Plan by County Sanitation Districts of Los Angeles County to evaluate site-specific objectives (SSOs) for nitrate for approval by the Regional Board's Executive Officer	County Sanitation Districts of Los Angeles County	1 year after Effective Date of TMDL
8.	Submittal of results from water effects ratio study for ammonia by County Sanitation Districts of Los Angeles County.	County Sanitation Districts of Los Angeles County	Effective Date of TMDL

Completion Date

Responsible Party

Implementation Tasks, Milestones and

Provisions

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