# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION

#### **RESOLUTION R6T-2007-0036**

## APPROVAL OF AMENDMENTS TO THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION TO REVISE STANDARDS FOR SURFACE WATERS OF THE ANTELOPE HYDROLOGIC UNIT, AND APPROVAL OF A SUBSTITUTE ENVIRONMENTAL DOCUMENT

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

- 1. The Water Board's revised Water Quality Control Plan for the Lahontan Region (Basin Plan) took effect on March 31, 1995, and has been amended periodically since that time.
- 2. Water Board staff prepared draft Basin Plan amendments including:
  - a. Changes to Chapter 2 to clarify existing beneficial use designations for eight Hydrologic Areas (HAs) within the Antelope Hydrologic Unit (HU), and to revise designated beneficial uses for lower Amargosa Creek, the Piute Ponds and associated wetlands, and Rosamond Dry Lake
  - b. Changes to Chapter 3 to correct a typographical error in the existing regionwide water quality objective for ammonia toxicity, and to adopt site-specific objectives for ammonia toxicity for lower Amargosa Creek and the Piute Ponds and wetlands
  - c. Changes to Chapter 4 to revise and update the informational description of the Los Angeles County Sanitation District No. 14 (LACSD No. 14) facilities.

The amendments also include minor editorial changes.

- 3. The draft amendments to the Basin Plan were developed in accordance with Water Code section 13240 et seq. In developing new SSOs for ammonia toxicity, the Water Board and its staff considered the following factors specified in Water Code section13241:
  - a. Past, present and probable future beneficial uses of water
  - b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto

- c. Water quality considerations that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area
- d. Economic considerations
- e. The need for developing housing within the region
- f. The need to develop and use recycled water.
- 4. The Water Board considered the costs of implementing the amendments, and finds that the cost is reasonable in relation to the water quality benefits derived from implementing the amendment.
- 5. A Notice of Filing, the staff report, substitute environmental document, including an environmental checklist, and draft amendments were prepared and distributed to interested individuals and public agencies for review and comment in accordance with state and federal environmental regulations (Cal. Code Regs. tit. 23, § 3775; 40 C.F.R. § 25; and 40 C.F.R. § 131.).
- 6. The proposed amendments could result in lowering of water quality because: (1) the proposed site-specific objectives for ammonia are less stringent than the existing water quality objectives; and (2) the applicability of some existing water quality objectives will change with the removal of certain designated beneficial uses. However, ambient water quality is expected to improve over historic conditions because (under a separate facilities plan) LACSD No. 14 will be changing from secondary to tertiary treatment, reducing the volume of effluent discharged to lower Amargosa Creek and the Piute Ponds and wetlands, and eliminating overflows of effluent from Piute Ponds to Rosamond Dry Lake.
- 7. Findings under the state Nondegradation Policy (State Water Board Resources Control Board Resolution 68-16) are necessary to allow lowering of water quality. The Lahontan Water Board finds that:
  - a. The proposed Basin Plan amendments are consistent with maximum benefit to the people of the State because they will facilitate the implementation of LACSD No.14's 2020 facilities plan to serve projected growth in the Lancaster area, and the continued use of recycled water to support habitat for sensitive wildlife species and a regionally important environmental education site.
  - b. The proposed Basin Plan amendments will not unreasonably affect present and anticipated uses of the affected surface waters. The beneficial uses proposed for removal are not existing or feasibly attainable uses. Through its permitting and enforcement authority, the Water Board will ensure full protection of the remaining existing and potential beneficial uses,

- c. The proposed Basin Plan amendments will not result in water quality less than that prescribed in the applicable water quality objectives. The objectives will be reflected in permits for waste discharges to the affected waters, to ensure that the highest water quality consistent with maximum benefit to the people of the state will be maintained.
- 8. The Water Board's basin planning process is a certified regulatory program pursuant to the California Environmental Quality Act (Pub. Resources Code § 21080.5.). Water Board staff prepared and circulated a draft substitute environmental document for public review. The substitute environmental document, when considered together with the record of the public review process as a whole, indicates that adoption of the proposed amendments to the Basin Plan will have no significant or potentially significant adverse impacts on the environment. Because there will be no significant or potentially significant impacts on the environment, no mitigation measures are proposed. The substitute environmental document, when considered together with the record of the public review process as a whole, shows that there is no potential for significant adverse impacts, either individually or cumulatively, on wildlife. The substitute environmental document, when considered together with the record of the public review process as a whole, also indicates that the adoption of the proposed amendments will have no adverse economic impacts related to the creation or elimination of jobs, the creation of new businesses or the elimination of existing businesses, or the expansion of businesses currently doing business within the State of California.
- 9. The proposed amendments create new performance standards that may lead to requirements for the installation of pollution control equipment or to new treatment processes or facilities. However, no new implementation measures are proposed as part of the amendments. The new water quality objectives will be implemented using the Board's existing permitting and enforcement authority. They are expected to be attainable without changing the facilities and treatment processes to be implemented by LACSD under its approved facilities plan. The substitute environmental document includes an analysis of reasonably foreseeable means of compliance pursuant to Public Resources Code section 21159.
- 10. Preliminary drafts of the proposed amendments and technical staff report were reviewed by two external scientific peer reviewers, pursuant to Health and Safety Code section 57004. The reviewers' comments and staff's responses are included in the administrative record of the amendments. Changes were made in the draft amendments and technical staff report for the proposed amendments as a result of the scientific peer review process.
- 11. The proposed amendments meet the necessity standard of the Administrative Procedure Act, Government Code section 11353, subdivision (b).

- 12. The availability of the draft amendments and substitute environmental document was properly noticed in a newspaper of general circulation in the affected watershed as required by Water Code section 13244. Copies of the notice, amendments and environmental document were made available to parties on the Water Board's Basin Plan mailing list who requested them. Copies of these documents were also made available on the Internet.
- 13. Three sets of written public comments were received on the draft amendments, draft substitute environmental document, or technical staff report. Water Board staff prepared written responses to written comments received by November 14, 2007. The Water Board heard and considered all testimony presented at a duly noticed public hearing held at its regular November 28-29, 2007 meeting.

#### THEREFORE BE IT RESOLVED:

- Based on the record as a whole, including the draft Basin Plan amendments, the environmental document, staff report, accompanying written documentation, the scientific peer reviewers' comments, and public comments received, the Water Board finds that adoption of the proposed amendments to the Basin Plan will not result in significant or potentially significant effects on the environment.
- 2. Considering the record as a whole, there is no evidence before the Water Board that the adoption of the proposed amendments to the Water Quality Control Plan for the Lahontan Region will have any adverse impacts in terms of the creation or elimination of jobs, the creation of new businesses or the elimination of existing businesses, or the expansion of businesses currently doing business within the State of California.
- 3. The environmental document prepared by Water Board staff pursuant to Public Resources Code section 21080.5, which reflects the independent judgment of the Water Board, is hereby certified. Following approval of the Basin Plan amendments by the State Water Resources Control Board (State Water Board) and the California Office of Administrative Law (OAL), the Executive Officer shall file a Notice of Decision with the Resources Agency. The record of the final environmental document shall be retained at the Water Board's office at 2501 Lake Tahoe Boulevard, South Lake Tahoe, California, in the custody of the Board's administrative staff.
- 4. The Water Board adopts the amendments to Chapters 2, 3, and 4 of the Basin Plan to clarify and revise designated beneficial uses for surface waters of the Antelope Hydrologic Unit, to adopt site-specific water quality objectives for ammonia toxicity, to update the description of LACSD No. 14 facilities, and to make minor editorial changes.

- 5. The Executive Officer is directed to forward copies of the Basin Plan amendments and the administrative record to the State Water Board in accordance with the requirements of Water Code section 13245.
- 6. The Water Board requests that the State Water Board approve the Basin Plan amendments in accordance with the requirements of Water Code sections 13245 and 13246 and forward them to the OAL and the U.S. Environmental Protection Agency for approval.
- 7. If during its approval process for Water Board Basin Plan amendments or policies, the State Water Board or OAL determines that minor, non-substantive changes to the language of the amendment or policy are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Water Board of any such changes.
- 8. Because the Basin Plan amendments have the potential for less than significant effects on wildlife, the Executive Officer is authorized to pay the California Department of Fish and Game filing fee (as required by Fish and Game Code § 711.4) and submit payment to the Resources Agency with the Notice of Decision.

I, Harold J. Singer, 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, Lahontan Region on November 29, 2007.

HARÔLD J. SINGER EXECUTIVE OFFICER

## Adopted November 29, 2007 Resolution R6T-2007-0036

Amendments to the Water Quality Control Plan for the Lahontan Region (Basin Plan)

## Revised Standards for Surface Waters of the Antelope Hydrologic Unit

California Regional Water Quality Control Board, Lahontan Region 2501 Lake Tahoe Boulevard South Lake Tahoe CA 96150 www.waterboards.ca.gov/lahontan

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### Introduction

On November 29, 2007, under Resolution R6T-2007-36, the California Regional Water Quality Control Board, Lahontan Region adopted amendments to the *Water Quality Control Plan for the Lahontan Region* (Basin Plan) to revise standards for surface waters downstream of the Los Angeles County Sanitation District No. 14 (LACSD No. 14) wastewater discharge to Amargosa Creek. These waters are in the Antelope Valley watershed (or Antelope Hydrologic Unit) and are entirely within the boundaries of Edwards Air Force Base. LACSD No. 14 provides municipal wastewater treatment for the city of Lancaster and nearby areas in eastern Los Angeles County. The plan amendments will be implemented through the Water Board's existing permitting and enforcement authority. After final approval, the amendments will be physically incorporated into the Basin Plan, and editorial updates of the Record of Amendments page, Table of Contents, List of Tables, and page numbers will be made.

## **Summary of Adopted Changes**

#### Basin Plan Chapter 2, Beneficial Uses

The following changes were adopted for Table 2-1:

- Make editorial changes to the beneficial use table to show that the COLD and COMM uses designated categorically for minor surface waters of the Antelope Hydrologic Unit as a whole apply to the "Minor Surface Waters" categories of all of its subunits. (The subunits include seven Hydrologic Areas that are not otherwise affected by the Basin Plan amendments.)
- Make an editorial correction to the spelling of "Roger's Lake Wetlands" (first entry under the Antelope HU heading) by removing the apostrophe in "Roger's."
- Remove the Municipal and Domestic Supply (MUN), Cold Freshwater Habitat (COLD), Water Contact Recreation (REC-1) and Commercial and Sportfishing (COMM) uses from the waters downstream of LACSD's discharge where these uses are now designated categorically. Affected waters include a segment of Amargosa Creek, Piute Ponds, and Rosamond Dry Lake.
- Add the Rare, Threatened and Endangered Species Habitat (RARE) and Preservation of Biological Habitats of Special Significance (BIOL) beneficial uses for the Piute Ponds wetlands to recognize their use by multiple sensitive bird species. Add the Freshwater Replenishment (FRSH) use for two segments of Amargosa Creek and for the Paiute Ponds.
- Remove the categorical Agricultural Supply (AGR) use from and add the Inland Saline Water Habitat (SAL) use to Rosamond Dry Lake. A footnote to Table 2-1 would be added to clarify that the SAL use does not apply to tributaries of Rosamond Dry Lake.

For clarity these changes are shown in two different tables. The first table shows the proposed editorial changes to the "minor" waters categories of the eight HAs within the HUs in underline format. In the second table, new rows are added for specific water bodies or water body segments within the Lancaster HA. The beneficial uses in these rows include the uses already designated categorically for each of these waters as "minor surface waters" or "minor wetlands", and the changes summarized above: This table assumes that the editorial changes in the first table have been made, and shows the regulatory changes (additions or deletions of uses) in strikeout/underline format.

The tables below are in Microsoft WORD format. Table 2-1 in the Basin Plan is in Microsoft Excel format, and fonts, row and column sizes, and spacing may change when the amendments are finally incorporated into the main plan.

#### **Basin Plan Chapter 3, Water Quality Objectives**

The following changes were adopted:

- Correct a typographic error in the existing regionwide water quality objective for ammonia (Basin Plan page 3-13). This is a nonregulatory editorial change).
- Add new site specific objectives (SSOs) for ammonia under the Antelope
  Hydrologic Unit heading on Basin Plan page 3-11 and in new Tables 3-19a and
  319b. Add a new map of the water bodies affected by the SSOs. The objectives
  are based on the U.S. Environmental Protection Agency's 1999 nationwide
  freshwater ammonia toxicity criteria. They include equations for calculation of
  applicable acute (1 hour average) and chronic (30 day average) limits for total
  ammonia concentrations under different temperature and pH conditions.

#### **Basin Plan Chapter 4, Implementation**

Update the informational (nonregulatory) description of LACSD No. 14's facilities on page 4.4-12.

#### Miscellaneous editorial changes

Appropriate changes will be made to the page numbers, record of amendments page, index, table of contents, list of tables, list of figures, bibliography, etc. to reflect the proposed amendments.

# Text of Adopted Basin Plan Amendments

(Note: The following pages do not include the editorial changes to the page numbers, Table of Contents, etc., that will be made after final approval of the amendments. Font sizes, placement of text in two-column format on the affected pages, and the format of the tables and figure may change when the approved amendments are incorporated into the Basin Plan. The figure will be redrawn using Geographic Information System (GIS) software.)

### Editorial Changes to Basin Plan Chapter 2

(The following changes are should be made to pages 2-40 and 2-41. Changes are shown with bold, underlined "Xs" in a larger font for emphasis. When the changes are incorporated into the plan, fonts for "x" entries will be made consistent throughout the table.)

## TABLE 2-1. BENEFICIAL USES OF SURFACE WATERS OR THE LAHONTAN REGION

Unless otherwise specified, beneficial uses also apply to all tributaries of surface waters identified in Table 2-1.

	HYDROLOGIC	WATERBODY	BENEFICIAL USES																	DECEIVING					
HU No.	UNIT/SUBUNIT DRAINAGE FEATURE	CLASS MODIFIER	M U N	A G R	P R 0	I N D		R	N A V			R E C - 2	0		W A R M	O L	S A L	8   L   D	B O L	Α	M I G R	P W	Q	L	RECEIVING WATER
626.00	ANTELOPE HYDROLOGIC UNIT																								
	ROGER'S ROGERS LAKE WETLANDS	WETLANDS	х								Х	Х			Х		Х	Х					х	Х	
	OAK CREEK	PERENNIAL STREAM	х	х		х	х				х	х	х		Х			Х							ANTELOPE VALLEY GW
	LITTLE ROCK CREEK	INTERMITTENT STREAM	х				х				х	х	х			х		Х							ANTELOPE VALLEY GW
	BIG ROCK CREEK	PERENNIAL STREAM	х	х		х	х				х	х	х			х		х							ANTELOPE VALLEY GW
	MESCAL CREEK	PERENNIAL STREAM	х	х			х				х	х	х			Х		Х							L.A. AQUEDUCT
	FAIRMONT RESERVOIR	RESERVOIR	Х	х		Х	х				Х	Х	х		Х			Х							L.A. AQUEDUCT
	HAROLD RESERVOIR	RESERVOIR	х	х		х	х				х	х	х		Х			Х							ANTELOPE VALLEY GW
	LITTLE ROCK RESERVOIR	RESERVOIR	х	х		х	х				Х	х	х			Х		х							ANTELOPE VALLEY GW
	LAKE PALMDALE	RESERVOIR	Х	Х			Х				Х	Х	х			Х		Х							L. A. AQUEDUCT
	MINOR SURFACE WATERS		Х	Х			Х				Х	Х	х		Х	Х		Х							
	MINOR WETLANDS	WETLANDS	Х	Х			Х	Х			Х	Х			Χ			Х							
000.40																									
626.10	CHAFFEE HYDROLOGIC AREA																								
	MINOR SURFACE WATERS		Х	Х			Х				Х	Х	X		Х	X		Х							
	MINOR WETLANDS	WETLANDS	х	Х			х	х			х	Х			Х			Х					х	Х	

## TABLE 2-1. BENEFICIAL USES OF SURFACE WATERS OR THE LAHONTAN REGION

Unless otherwise specified, beneficial uses also apply to all tributaries of surface waters identified in Table 2-1.

	HYDROLOGIC UNIT/SUBUNIT	BENEFICIAL USES															RECEIVING								
ни	DRAINAGE FEATURE	CLASS MODIFIER	M U N		R	I N D	G R R	FRSH	N	P O S	R E C - 1	R E C - 2		A Q U A	R	COLD	S A L	1	ВІОГ	R A R E	M I G R	Р	Q	F L D	WATER
No.																									
626.20	GLOSTER HYDROLOGIC AREA																								
	MINOR SURFACE WATERS		Х	Х			Х				Х	Х	<u>X</u>		Х	<u>X</u>		Х							
	MINOR WETLANDS	WETLANDS	Х	Х			Х	Х			Х	Х			Х			Х					Х	Х	
626.30	WILLOW SPRINGS		_	_		_	_							_			_		_	_					
	HYDROLOGIC AREA MINOR SURFACE WATERS		V	Х			Х				Х	Х	v		Х	V		Х							
	MINOR WETLANDS	WETLANDS	X				X	Х			X	X	<u>X</u>		Х	<u>X</u>		X					Х	х	
	WINTOTC WETER AND	***************************************	^				^	,				^	<u> </u>		٨			^						^	
626.40	NEENACH HYDROLOGIC AREA																								
	MINOR SURFACE WATERS		х	х			х				х	х	<u>X</u>		х	<u>X</u>		х							
	MINOR WETLANDS	WETLANDS	Х	Х			Х	Х			Х	Х			Х			Χ					Х	Х	
626.50	LANCASTER HYDROLOGIC																								
	MINOR SURFACE WATERS		Х	х			х				х	х	Х		х	X		Х							
	MINOR WETLANDS	WETLANDS	Х	Х			Х	Х			Х	Х			Х			Х					Х	Х	
626.60	NORTH MUROC HYDROLOGIC AREA			_	L	_		L	_					_		L	_		_	-		_			
	MINOR SURFACE WATERS		х	Х			х				Х	х	<u>X</u>		х	X		х							
	MINOR WETLANDS	WETLANDS	Х	Х			Х	Х			Х	Х			Х			Х					Х	Х	

## TABLE 2-1. BENEFICIAL USES OF SURFACE WATERS OR THE LAHONTAN REGION

Unless otherwise specified, beneficial uses also apply to all tributaries of surface waters identified in Table 2-1.

	HYDROLOGIC UNIT/SUBUNIT	WATERBODY CLASS									F	RECEIVING												
HU No.	DRAINAGE FEATURE	MODIFIER	U N	G R	R	N D	W R	-	l	0	Е	Е	O M M	Q U	A R	0 L	 L D	0 L	A R E	I G R	) P S Z	Q	- L D	WATER
626.70	BUTTES HYDROLOGIC AREA																							
	MINOR SURFACE WATERS		Х	х			Х				х	Х	X		Х	X	Х							
	MINOR WETLANDS	WETLANDS	Х	х			Х	Х			х	Х			Х		Х					Х	Х	
626.80	ROCK CREEK HYDROLOGIC AREA																							
	MINOR SURFACE WATERS		Х	х			Х				х	Х	<u>X</u>		Х	<u>X</u>	Х							
	MINOR WETLANDS	WETLANDS	Х	Х			Х	Х			Х	Х			Х		Х					Х	Х	
																								_

## Regulatory Changes to Basin Plan Chapter 2

The following excerpt from Basin Plan Table 2-1, page 2-41, includes only entries for the Lancaster Hydrologic Area. It assumes that the editorial changes shown in the previous table have already been made. Further changes are shown in strikeout underline format, and the changed entries are shown in a larger bold font for emphasis. In the final amendments, fonts will be made consistent with those used in the existing table.

	HYDROLOGIC UNIT/SUBUNIT DRAINAGE FEATURE	WATERBODY CLASS MODIFIER	CLASS MAPIGFNPRRCAWCSWBRMS								W	F	RECEIVING WATER												
HU No.	DIVANCETEATORE	IIIODII IEK	U N	G R	0 0	N D	R R	R S H	A V	O W	E C - 1	E C - 2	O M M	U	A R M	O L D	A L	I L D	I O L	A R E	I G R	P W N	Q E	L D	WAILK
626.50	LANCASTER HYDROLOGIC AREA				L		_											L		_					
	AMARGOSA CREEK ABOVE LACSD DISCHARGE	EPHEMERAL STREAM	х	х			х	<u>X</u>			х	х	х		Х	X		х							LOWER AMARGOSA CREEK
	AMARGOSA CREEK BELOW LACSD DISCHARGE	EPHEMERAL STREAM	×	х			х	<u>X</u>			×	х	×		Х	X		х							PIUTE PONDS AND WETLANDS
	PIUTE PONDS	PONDS	X	х			Х	<u>X</u>			¥	Х	X		Х	¥		Х	<u>X</u>	<u>X</u>					ROSAMOND DRY LAKE
	PIUTE PONDS WETLANDS	WETLANDS	X	х			Х	х			X	Х			Х			Х	<u>X</u>	<u>X</u>			Х	х	ROSAMOND DRY LAKE
	ROSAMOND DRY LAKE <sup>1</sup>	PLAYA LAKE	X	X			Х				X	Х	X		Х	X	<u>X</u>	Х							TERMINAL LAKE
	MINOR SURFACE WATERS		Х	Х			Х				Х	Х	Х		Х	х		Х							
	MINOR WETLANDS	WETLANDS	Х	х			х	Х			х	Х			Х			х					Х	Х	

<sup>&</sup>lt;sup>1</sup> The SAL use does not apply to tributaries of Rosamond Dry Lake.

### **Changes to Basin Plan Chapter 3**

On Basin Plan page 3-4, a typographical error in the first equation should be corrected by changing the coefficient "0.052" to "0.52", as follows:

$$1n-NH2 = 0.052 \div (FT \times FPH \times 2)$$

The following changes should be made to Basin Plan page 3-11. The final amendment language will be shown in two-column format.

### **Antelope Hydrologic Unit**

(See Figures 3-12 and 3-12a, and Tables 3-19 and 3-19a for water quality objectives for the Antelope HU.)

The following additional water quality objectives apply to Amargosa Creek downstream of the Los Angeles County Sanitation District No. 14 discharge point, and to the Piute Ponds and associated wetlands. The regionwide ammonia objective applies to all other surface waters of the Antelope Hydrologic Unit. (Note: the regionwide ammonia objective is derived from the USEPA's 1985 freshwater ammonia criteria, and emphasizes un-ionized ammonia. The objective below is derived from the USEPA's 1999 freshwater criteria for total ammonia.)

#### Ammonia, Total

The acute (1-hour) ammonia toxicity limits are dependent on pH, and the chronic (30-day) limits are dependent on pH and temperature. Concentrations of total ammonia in lower Amargosa Creek and the Piute Ponds and wetlands, expressed "as Nitrogen" or "as N," shall not exceed the acute and chronic limits for listed for the corresponding temperature and pH conditions in Tables 3-19a and 3-19b more often than once every three years, on the average. In addition, the highest four-day average concentration of total ammonia within the 30-day period shall not exceed 2.5 times the chronic toxicity limit.

The values in Table 3-19a are the USEPA's 1999 freshwater ammonia criteria for waters with salmonids (salmon and trout) absent and fish early life stages present. Salmonids are not present in lower Amargosa Creek and the Piute Ponds and wetlands. Early life stages of several warmwater fish species are present.

For temperature and pH values not explicitly in Table 3-19a, the most conservative ammonia value neighboring the actual value may be used, or the acute and chronic limits can be calculated from the following formulas from the USEPA's 1999 freshwater ammonia criteria document. In these equations, T = temperature in °C, and pH (the measure of acidity or alkalinity) is expressed in standard units.

Acute Toxicity. The formula for the acute toxicity limit (1-hour limit) for total ammonia as mg/L N is:

Acute Limit = 
$$\frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

<u>Chronic Toxicity</u>. The formula for the chronic toxicity limit (30-day limit) for total ammonia in mg/L N is:

Chronic Limit = 
$$\left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN(2.85, 1.45 * 10^{0.028*(25-T)})$$

In the equation above, "MIN" means that the calculation should use either 2.85 or the number resulting from the second expression, whichever is lower.

Temperature and pH measurements. If receiving water samples are obtained over a period of time during which pH and/or temperature is not constant, the pH, temperature, and the concentration of total ammonia in each sample should be determined. For each sample, the toxicity limit should be determined at the pH and temperature of the sample, and then the concentration of total ammonia nitrogen in the sample should be divided by the limit to determine a quotient. The acute or chronic toxicity objective is attained if the mean of the quotients is less than 1 over the duration of the averaging period.

The following new tables and figure should be added following Table 3-19 and Figure 3-12 (Basin Plan page 3-51). Note: the final figure will be redrawn with Geographic Information System (GIS) software. The page layout, map scale and fonts may change in the final table and figure. The alternate spelling "Piute" will be used for the ponds.

Table 3-19a. pH Dependent Values of the Acute Ammonia Toxicity Objective for Lower Amargosa Creek and the Piute Ponds and Wetlands

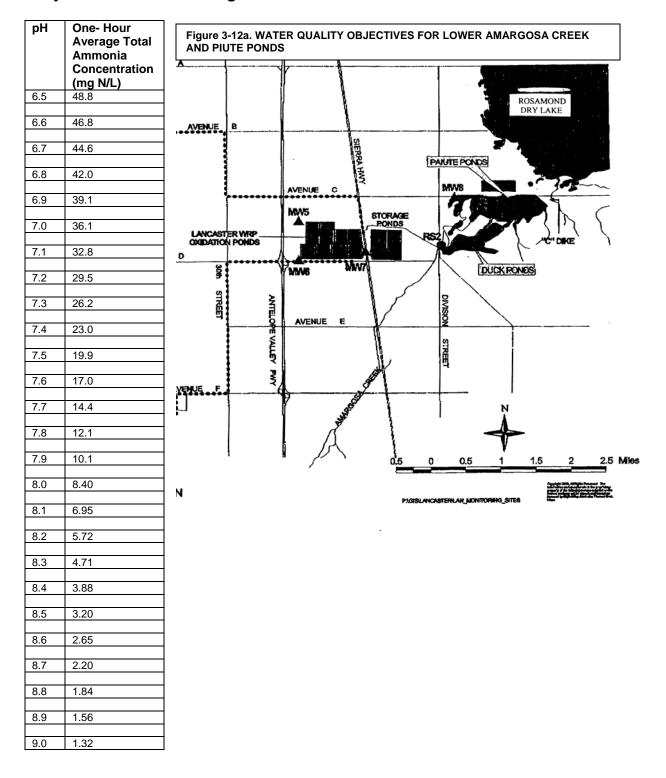


Table 3-19b. Temperature and pH- Dependent Values of the Chronic (30-Day Average) Ammonia Toxicity Objective for Lower Amargosa Creek and the Piute Ponds and Wetlands (Total Ammonia, mg N/L)

				•	Temper	ature °C	;			
рН	0°	14°	16°	18°	20°	22°	24°	26°	28°	30°
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

The following changes should be made to Basin Plan page 4.4-12:

## Los Angeles County Sanitation District Number 14—Lancaster

The District's plant currently treats municipal wastewater from the City of Lancaster, the surrounding unincorporated area and Fox Airfield. The capacity of the treatment plant is 11.6 mgd; it currently treats and discharges an average of 8.4 mgd. The treatment and disposal capacity is proposed to be expanded to 16.0 mgd by the year 1995.

All wastewater is treated by primary sedimentation tanks followed by additional treatment in oxidation ponds. Sludge from the primary sedimentation tanks is treated by anaerobic digesters. Digested sludge is stockpiled onsite until exported. In July 1988 the Mira Loma Jail facility located at 45100 60th Street West in Lancaster began using the digested sludge as a soil conditioner. An average of approximately 5,400 cubic yards per month have been exported to this facility during the period inclusive of July 1988 through October 1988. Potentially much of the stockpiled sludge would be used as soil amendment by a large ranch currently under waste discharge requirements. Currently most of the effluent is discharged to Nebeker Ranch and/or chlorinated and discharged to Piute Pond. Piute Pond is a marsh-like area that is located on Edwards Air Force Base (AFB) property and is used for duck hunting and wildlife viewing as well as wastewater disposal. At Nebeker Ranch the treated wastewater is used for irrigation of fodder crops.

Oxidation pond effluent not discharged to Nebeker Ranch or Piute Pond receives further treatment by a tertiary treatment lant with a design capacity of 0.6 mgd. This plant includes chemical addition, coagulation, sedimentation, filtration, and chlorination facilities. The effluent from the tertiary treatment plant is discharged to Apollo County Park where it is used as a source of supply for three artificial recreational lakes. The lake waters are used for fishing, boating and landscape irrigation within the park and fire protection at the Fox Airfield. In addition, the lake waters are used for dust control and compaction during county road construction and maintenance activities.

The District treats municipal wastewater from the City of Lancaster, the surrounding unincorporated area, and part of the City of Palmdale. Historically, most of the wastewater received secondary treatment. Under a facilities plan adopted in 2004, the District will replace its existing facilities with new tertiary treatment/activated sludge facilities. Phased expansion of the treatment and disposal facilities is planned. The activated sludge facilities will be operated so as to maximize nitrification-denitrification. Tertiary effluent will be used for agriculture, municipal landscape watering, industrial purposes, and maintenance of the lakes in Apollo Lakes Regional Park and the Piute Ponds and associated wetlands located on Edwards Air Force Base property. During the winter, when agricultural demand is low, effluent will be kept in storage reservoirs. New infrastructure for the distribution of recycled water is planned.