



CITY OF OCEANSIDE

WATER UTILITIES DEPARTMENT

January 26, 2006

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Executive Office
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, California 95814
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303 (d) Deadline:
1/31/06

RE: COMMENTS ON THE 2006 SECTION 303(d) LIST UPDATE FOR LISTING OF LOMA ALTA CREEK FOR TOTAL DISSOLVED SOLIDS

The 2006 Section 303(d) List Update includes the decision to list Loma Alta Creek (HA 904.10), in the Carlsbad Hydrologic Unit, for Total Dissolved Solids (TDS). According to the *Fact Sheets Supporting Revision of Section 303(d) List, Region 9*, this decision is based on the results of two samples, taken by the Regional Water Quality Control Board (RWQCB) Region 9 on May 20, 1998 that were in exceedance of 500 mg/L for TDS. The fact sheet further states "For inland surface waters with all beneficial uses, the WQO for Total Dissolved Solids is 500 mg/L."

Loma Alta Creek has only limited beneficial uses. According to Table 2-2, Beneficial Uses of Inland Surface Waters, on page 2-26 in the *Water Quality Control Plan for the San Diego Basin (Basin Plan)*, Loma Alta Creek has the beneficial uses of R2 – Non-Contact Water Recreation, WA – Warm Freshwater Habitat, and WI – Wildlife Habitat. R1 – Water Contact Recreation is listed as a potential beneficial use. Loma Alta Creek is excerpted from MUN – Municipal and Domestic Supply and is not listed for AGR – Agricultural Supply, IND – Industrial Service Supply, PROC – Industrial Process Supply, GWR – Groundwater Recharge, FRSW – Freshwater Replenishment, POW – Hydropower Generation, BIOL – Preservation of Biological Habitats of Special Significance, COLD – Cold Freshwater Habitat, RARE – Rare, threatened or Endangered Species, or SPWN – Spawning, Reproduction, and/or Early Development.

The Basin Plan discusses Total Dissolved Solids in inland surface waters on page 3-15. The only numerical limit discussed in that section in regard to Total Dissolved Solids in inland surface waters states, "The recommended secondary drinking water standard for total dissolved solids is 500 mg/L with an upper limit of 1,000 mg/L due to taste considerations." Regarding water quality objectives for Total Dissolved Solids, the Basin Plan states "Inland surface waters shall not contain total dissolved solids in concentrations in excess of the numerical objectives described in Table 3-2."

In the section entitled *Water Quality Objectives of Inland Surface Waters*, on page 3-17 in the Basin Plan, it states that "Specific numerical water quality objectives for inland surface waters are presented by hydrologic area and subarea and watershed in Table 3-2...The water quality objectives for inland surface water designations described in this table correspond with the

beneficial used designations previously described in Chapter 2. Water Quality Objective variations occur in some of the hydrologic areas, subareas and stream reaches.”

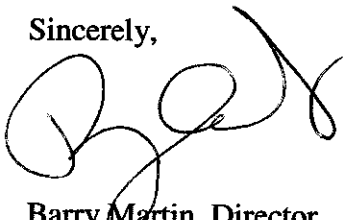
Loma Alta Creek is listed in Table 3-2 in the Basin Plan under the Carlsbad Hydrologic Unit on page 3-23. In Table 3-2, there is no limit stated for TDS, Chlorides, Sulfates, Sodium, Nitrogen and Phosphorus, Iron, Manganese, MBAS or Boron for Loma Alta Creek.

The decision by the State Board to list Loma Alta Creek for TDS is based on two measured exceedances of 500 mg/L. The fact sheet explaining the decision states that the use of 500 mg/L as a water quality objective is based on beneficial uses and water quality objectives in the Basin Plan. However, Loma Alta Creek does not have a TDS water quality objective listed in the Basin Plan. Further, based on the sections in the Basin Plan regarding beneficial uses of inland surface waters, Table 2-2 listing those uses, water quality objectives of inland surface waters, water quality objectives for total dissolved solids, and Table 3-2 listing those objectives, Loma Alta Creek does not have the beneficial uses to merit a blanket TDS water quality objective of 500 mg/L.

The City of Oceanside does not support the decision by the State Board to list Loma Alta Creek in Section 303(d) for TDS. The City requests that the State Board review this decision and remove Loma Alta Creek from the 2006 Section 303(d) list Update for TDS.

If you have any questions, please contact Hawkeye Sheene, Environmental Specialist for the Clean Water Program at (760) 435-5807.

Sincerely,



Barry Martin, Director
Water Utilities Department

Attachments:

- Fact Sheets Supporting Revision of Section 303(d) List, Region 9, page 109-110
- Basin Plan - Table 2-2. Beneficial Uses of Inland Surface Waters, page 2-26
- Basin Plan - Total Dissolved Solids section for inland surface waters, page 3-15
- Basin Plan - Water Quality Objectives of Inland Surface Waters section, page 3-17
- Basin Plan - Table 3-2. Water Quality Objectives, page 3-23

cc: John Robertus, Regional Water Quality Control Board
Robert Morris, Regional Water Quality Control Board
Craig J. Wilson, Water Quality Assessment Unit, Division of Water Quality, SWRCB (email)

**Excerpt from:
Fact Sheets Supporting Revision of Section 303(d) List, Region 9**

Region 9

Water Segment: Loma Alta Creek

Pollutant: Total Dissolved Solids

Decision: List

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. Two of the 2 samples exceeded the Basin Plan criteria, and these exceed the allowable frequency of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Adverse Biological Responses

Beneficial Use: R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: -N/A

**Water Quality Objective/
Water Quality Criterion:** From the Basin Plan: For inland surface waters with all beneficial uses, the WQO for Total Dissolved Solids is 500 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.

Data Used to Assess Water Quality: The samples were collected by RWQCB9 on 5/20/1998 at two locations on Loma Alta Creek. Two of the 2 samples for TDS were in exceedance.

Spatial Representation: Two samples were taken along Loma Alta Creek; one at College Blvd. and one at El Camino Real.

Temporal Representation: One sample was taken at each of the two locations on one day, 5/20/1998.

QA/QC Equivalent: Data was used in the 2002 assessment.

Table 2-2. BENEFICIAL USES OF INLAND SURFACE WATERS

1,2 Inland Surface Waters	Hydrologic Unit Basin Number	BENEFICIAL USE														
		MUN	AGR	IND	PROC	GW	FRSH	POW	REC	REC	BIOL	WAR	COL	WILD	RARE	SPWN
San Luis Rey River Watershed - continued																
unnamed intermittent streams	3.16	+	•	•												
Moosa Canyon	3.14	+	•	•												
Moosa Canyon	3.13	+	•	•												
Turner Lake	3.13															
See Reservoirs & Lakes- Table 2-4																
South Fork Moosa Canyon	3.13	+	•	•												
Moosa Canyon	3.12	+	•	•												
Gopher Canyon	3.12	+	•	•												
South Fork Gopher Canyon	3.12	+	•	•												
San Luis Rey River	3.11	+	•	•												
Pilgrim Creek	3.11	+	•	•												
Windmill Canyon	3.11	+	•	•												
Tuley Canyon	3.11	+	•	•												
Lawrence Canyon	3.11	+	•	•												
Mouth of San Luis Rey River	3.11															
See Coastal Waters- Table 2-3																
San Diego County Coastal Streams																
Loma Alta Creek	4.10	+														
Loma Alta Slough	4.10															

• Existing Beneficial Use

○ Potential Beneficial Use

+ Excepted From MUN (See Text)

¹ Waterbodies are listed multiple times if they cross hydrologic area or sub area boundaries.
² Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

Water Quality Objective for Suspended and Settleable Solids:

Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses.

SULFATE

The most important sources of sulfate in native waters of the San Diego Region are the gypsiferous deposits and sulfide minerals associated with crystalline rocks. Excessive sulfate concentrations in drinking water can cause laxative effects to new users of the water supply. The recommended secondary drinking water standard for sulfate is 250 mg/l with an upper limit of 500 mg/l.

Water Quality Objectives for Sulphate:

Inland surface waters shall not contain sulphate in concentrations in excess of the numerical objectives described in Table 3-2.

Ground waters shall not contain sulphate in concentrations in excess of the numerical objectives described in Table 3-3.

TASTES AND ODORS

Undesirable tastes and odors in water may be a nuisance and may indicate the presence of pollutants. The secondary drinking water standard for odor (threshold) is 3 odor units.

Water Quality Objectives for Taste and Odor:

Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses.

The natural taste and odor of fish, shellfish or other Regional water resources used for human consumption shall not be impaired in inland surface waters and bays and estuaries.

Inland surface waters shall not contain odors in concentrations in excess of the numerical objectives described in Table 3-2.

Ground waters shall not contain odors in concentrations in excess of the numerical objectives described in Table 3-3.

TEMPERATURE

Waste discharges can cause temperature changes in the receiving waters which adversely affect the aquatic biota. Discharges most likely to cause these temperature effects are cooling water discharges from power plants.

Water Quality Objectives for Temperature:

The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.

At no time or place shall the temperature of any COLD water be increased more than 5°F above the natural receiving water temperature.

TOTAL DISSOLVED SOLIDS

Dissolved solids in natural waters may consist of carbonates, bicarbonates, chlorides, sulfates, phosphates, nitrates, magnesium, sodium, iron, manganese and other substances. The recommended secondary drinking water standard for total dissolved solids is 500 mg/l with an upper limit of 1000 mg/l due to taste considerations. High total dissolved solids concentrations in irrigation waters can be deleterious to plants directly, or indirectly through adverse effects on soil permeability. A classification of irrigation waters with respect to total dissolved solids concentration is described in Table 3-1.

Water Quality Objectives for Total Dissolved Solids:

Inland surface waters shall not contain total dissolved solids in concentrations in excess of the numerical objectives described in Table 3-2.

Ground waters shall not contain total dissolved solids in concentrations in excess of the numerical objectives described in Table 3-3.

TOXICITY

Toxicity is the adverse response of organisms to chemicals or physical agents.

Water Quality Objectives for Toxicity:

All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in

Ground waters shall not contain turbidity in excess of the numerical objectives described in Table 3-3.

The transparency of waters in lagoons and estuaries shall not be less than 50% of the depth at locations where measurement is made by means of a standard Secchi disk, except where lesser transparency is caused by rainfall runoff from undisturbed natural areas and dredging projects conducted in conformance with waste discharge requirements of the Regional Board. With these two exceptions, increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:



Natural Turbidity	Maximum Increase
0-50 NTU	20% over natural turbidity level
50-100 NTU	10 NTU
Greater than 100 NTU	10% over natural turbidity level

In addition, within San Diego Bay, the transparency of bay waters, insofar as it may be influenced by any controllable factor, either directly or through induced conditions, shall not be less than 8 feet in more than 20 percent of the readings in any zone, as measured by a standard Secchi disk. Wherever the water is less than 10 feet deep, the Secchi disk reading shall not be less than 80 percent of the depth in more than 20 percent of the readings in any zone.

WATER QUALITY OBJECTIVES OF INLAND SURFACE WATERS

Specific numerical water quality objectives for inland surface waters are presented by hydrologic area and subarea and watershed in Table 3-2.

The water quality objectives for inland surface water designations described in this table correspond with the beneficial use designations previously described in Chapter 2. Water Quality Objective variations occur in some of the hydrologic areas, subareas and stream reaches. Water quality variations from the objectives may also occur within a given hydrologic area subarea or stream reach. Such local variations will be evaluated when waste discharge requirements, NPDES permits, Cleanup and

Abatement Orders, and Cease and Desist Orders are being developed for a given discharger.

The omission of mineral objectives for some areas corresponds to the lack of beneficial uses (AGR, MUN, IND) requiring such objectives.

WATER QUALITY OBJECTIVES OF GROUND WATERS

Specific numerical water quality objectives for ground waters are presented by hydrologic area and subarea in Table 3-3.

A footnote for some ground water basins is listed to show that some water quality objectives are considered tentative until detailed salt balance studies are conducted.

In 1978 the Regional Board, in Resolution No. 78-6, deleted water quality objectives and beneficial uses for certain portions of basins 1.10, 1.20, 1.30, 1.40, 1.50, 2.10, 3.10, 4.10, 4.20, 4.30, 4.40, 4.50, 4.60, 5.10, 6.10, 7.10, and 11.10. Table footnotes are included to identify these basins. The Regional Board elected to delete beneficial uses in portions of these basins, where the uses of ground water were marginal or nonexistent, to promote wastewater reclamation by sewage treatment plants. The deletion of beneficial uses in these areas was based upon a determination that the loss of ground water supplies was outweighed by the long-term increase in wastewater reclamation made possible by allowing reclaimed water discharges which are high in total dissolved solids. It is the Regional Board's intent to protect the water quality in these basins under the terms of State Board Resolution No. 68-16.

For purposes of intrusion barrier formation or ground water recharge, the water quality objective qualifications footnoted in Table 3-3 allow, with approval of the Regional Board, discharge of reclaimed water in areas of equal or poorer ground water quality. Relatively poor quality water could also be used for intrusion barrier formation along the coast.

WATER QUALITY CRITERIA

The literature contains many different water quality criteria designed to protect specific beneficial uses of water. A summary of the specific numerical water quality criteria considered by the Regional Board for designation as water quality objectives is

Table 3-2. WATER QUALITY OBJECTIVES

Concentrations not to be exceeded more than 10% of the time during any one year period.

Inland Surface Waters	Hydrologic Unit Basin Number	Constituent (mg/L or as noted)												
		TDS	Cl	SO ₄	%Na	N&P	Fe	Mn	MBAS	B	ODOR	Turb NTU	Color Units	F
SAN LUIS REY HYDROLOGIC UNIT														
903.00														
Lower San Luis	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Monserat	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Warner Valley	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
CARLSBAD HYDROLOGIC UNIT														
904.00														
Loma Alta	HA	-	-	-	-	-	-	-	-	-	none	20	20	1.0
Buena Vista Creek	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Agua Hedionda	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Encinas	HA	-	-	-	-	-	-	-	-	-	none	20	20	1.0
San Marcos	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Escondido Creek	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
SAN DIEGUITO HYDROLOGIC UNIT														
905.00														
Solana Beach	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Hodges	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
San Pasqual	HA	500	250	250	60	a	0.3	0.06	0.5	0.75	none	20	20	1.0
Santa Maria Valley	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Santa Ysabel	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
PENASQUITOS HYDROLOGIC UNIT														
906.00														
Miramar Reservoir	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0
Poway	HA	500	250	250	60	a	0.3	0.05	0.5	0.75	none	20	20	1.0

HA - Hydrologic Area

HSA - Hydrologic Sub Area (Lower case letters indicate endnotes following the table.)