R.B. Copy

CITY OF SIMI VALLEY

Home of The Ronald Reagan Presidential Library

303 (d) Deadline:
1/31/06

January 19, 2006

Craig J. Wilson, Chief
Monitoring and TMDL Listing Unit
Division of Water Quality
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

SUBJECT: COMMENTS ON DRAFT 2006 303(d) LIST

Dear Mr. Wilson:

The City of Simi Valley (Simi) appreciates the opportunity to comment on the proposed 2006 303(d) list. This letter provides a summary of our comments on the proposed 2006 303(d) list.

In addition to a few general comments, we feel there are several constituents that should be removed from the 303(d) list based on the inappropriate application of objectives found in the Water Quality Control Plan for the Los Angeles Region (Basin Plan) and the existing natural background conditions.

To identify faulty listings, the State Board has appropriately employed the approach of reevaluating existing listings based on the newly established Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy). We strongly support this approach. The following is the list of the constituents/reaches that, pursuant to the Listing Policy, need to be de-listed and the rationale and justification for such de-listings:

Calleguas Creek Watershed Reaches 6, 7, and 8 and Fox Barranca Canyon – Mineral Water Quality

There are two major concerns with the listings for boron, chloride, sulfate, and TDS in Calleguas Creek Reaches 6, 7, and 8 and Fox Barranca Canyon. **First and foremost, the mineral water quality objectives in Table 3-8 of the Basin Plan are not applicable to these reaches.** Second, during the 303(d) listing process, contrary to the Listing Policy, **no consideration was given to effect of natural background concentrations on receiving water quality.**

Numeric Basin Plan Objectives not Applicable to Reaches 6, 7, and 8 and Fox Barranca Canyon

The existing 303(d) listings are based on exceedances of the water quality objectives in the Basin Plan. However, these water quality objectives are not based on the protection of any of the beneficial uses listed in the Basin Plan. The objectives are solely based on the anti-degradation policy. Further, the objectives were set in 1975, and updated in 1978, based on the existing water quality within the lower reach (reach 3) of the watershed and do not apply to the upper reaches (reaches 6,7, 8 and Fox Barranca Canyon).

The 1978 amendment to the 1975 Basin Plan revised certain salts objectives for the Calleguas Creek Watershed. Attachment 1 includes the revision pages taken from the Regional Board's Administrative Record that discuss the 1978 revisions to the Basin Plan. As seen in Attachment 1, the objectives were revised because:

> "The current Basin Plan objectives for surface water and groundwater in this portion of the basin are inconsistent in view of the continuity of these waters. The proposed changes correct this inconsistency. In addition the proposed numbers reflect current water quality. Within this reach there are two controllable point source discharges: Thousand Oaks Hill Canyon and Camarillo STP. Both discharge into Conejo Creek tributary to Calleguas Creek and comply with waste discharge requirements prescribed by this Board. The proposed changes will not have any significant effect upon the existing or potential beneficial uses." (RWQCB, 1978)

The numeric objectives for chloride and sulfate were changed and the reach designations changed from **" at Potrero Road"** to **"above Potrero Road"**. Table 1 summarizes the 1975 and 1978 Basin Plan objectives along with the data on which the 1978 objectives are based. The 1978 water quality objectives were based on existing data from 1975-1977. These data were collected at what was then the Camarillo State Hospital and is now the California State University Channel Island (CSUCI) campus (Figure 1 and Attachment 1).

Table 1. Summary of Changes to 1975/1978 Basin Plans

Constituent	1975 Objective (at Potrero Road)	1978 Objective (above Potrero Road)	Max 1975-1977 Data[1] (mg/L)	Mean of 1975-1977 Data[1] (mg/L)
TDS	850	850	N/A	N/A
Chloride	50	150	169	124 (27 samples)
Sulfate	400	250	300	193 (27 samples)
Boron	1.0	1.0	N/A	N/A

N/A- Data were not presented because these objectives were not revised in 1978.
1 Data were collected at what is now the CSUCI campus

The discussion about the changes made in 1978 indicate that **the objectives in the Basin Plan were only intended to apply to the lower Calleguas and Conejo Creek reaches of the watershed (Reaches 3, 9A, 9B, and 10), not Reaches 6, 7, 8 and Fox Barranca, which make up the Arroyo Simi and Arroyo Las Posas systems.** The stated reasons for changing the objectives were that the objectives are inconsistent based on the continuity of the waters. Furthermore, **only the Hill Canyon and Camarillo WTPs are referenced as discharging to**

the reach to which the objectives apply. The Moorpark and Simi Valley WWTPs were discharging to Reaches 6 and 7, respectively, in 1978 and are not described as discharging to the reach to which the objectives apply. Additionally, the monitoring station on which the objectives are based is located in the lower Calleguas (Reach 3) at the CSUCI gauging station. Surface flow from Reaches 6, 7, 8 and Fox Barranca does not reach this station except during wet weather events meaning that these surface waters are not contiguous except during high flow events (Figure 1). The change from **"at Potrero Road"** to **"above Potrero Road"** resulted in the application of water quality objectives to Reaches 6, 7, 8 and Fox Barranca that were intended to apply only to Reaches 3, 9A, 9B, and 10.

The administrative record clearly shows that 1) the boron, chloride, sulfate, and TDS objectives were set based on existing water quality concentrations (e.g., Anti-degradation Policy), not on the protection of specific beneficial uses; and, 2) the objectives were intended to be applied to reach 3 of the watershed. Therefore, no objective for boron, chloride, sulfate, or TDS exist for Reaches 6, 7, and 8 of the watershed. As such, these impairments should be de-listed, as there are no water body-specific objectives available for these constituents.

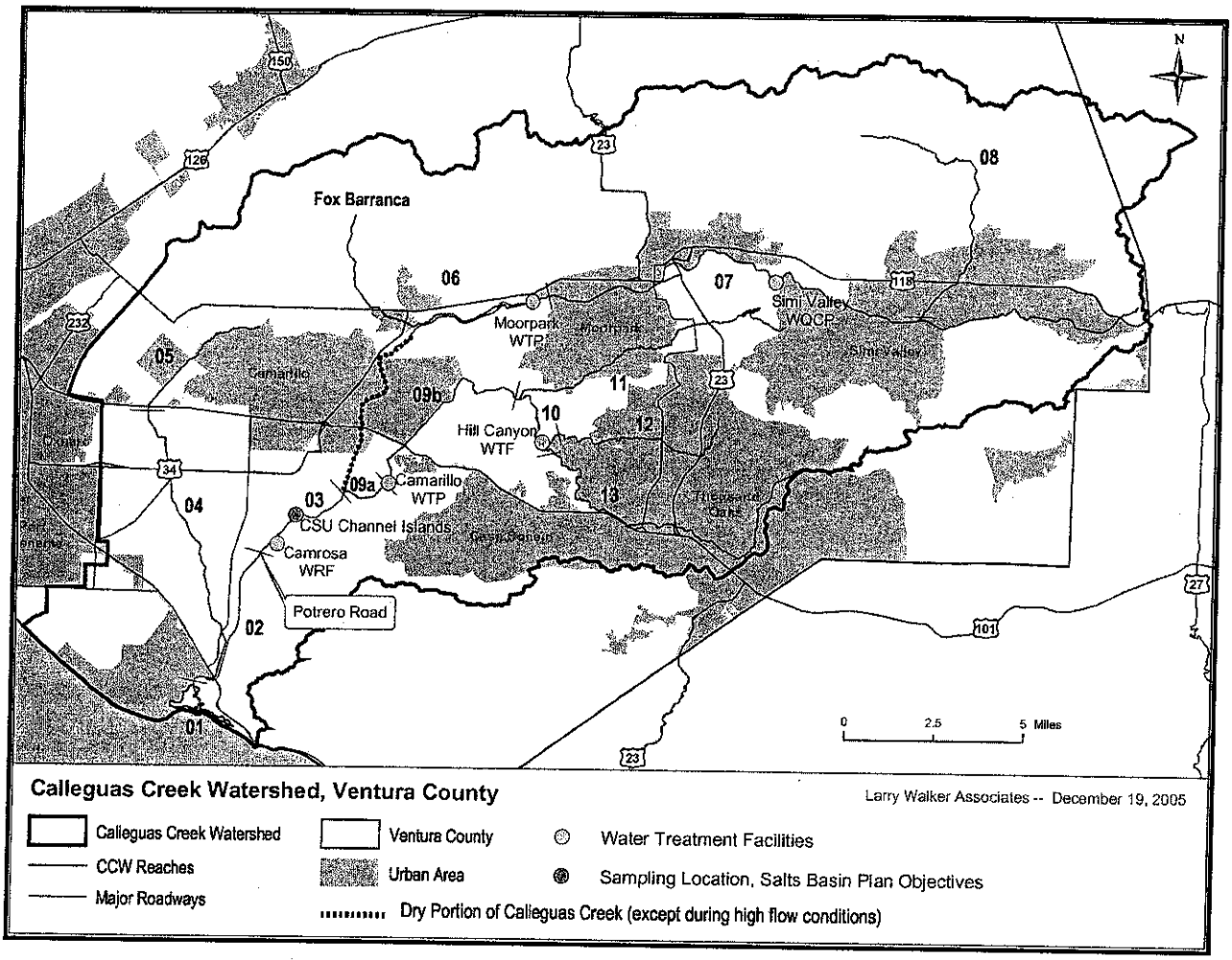


Figure 1. Calleguas Creek Watershed

Calleguas Creek Watershed Reaches 3, 4, 6, 7, 8, 9A, 9B, 10, 11, 12, and 13 – Mineral Water Quality

Table 3-8 of the 1994 Basin Plan, includes objectives for total dissolved solids (TDS), sulfate, chloride, and boron. Throughout the Calleguas Creek Watershed (CCW) listing process of 1996, 1998, and 2002 listings were made based on the water quality objectives listed in this table interpreted as instantaneous maximums. However, the 1994 revision to the Basin Plan removed a footnote from this table that was included when these objectives were originally developed in the Water Quality Control Plan for the Santa Clara River Basin (4A), Part 1, Part 2, Volume 1 dated March, 1975. That footnote stated:

> **"The objectives at each station are of the weighted annual average. Samples shall be collected at monthly intervals preferably, but at least at quarterly intervals. Flow rate shall be determined at the time of sampling."**

Therefore, the objectives were intended to be flow-weighted annual averages. The footnote was dropped in 1994 without due process (i.e., public comment on the objectives change). If the objectives were interpreted as flow-weighted annual averages, some of the water bodies listed for TDS, sulfate, chloride, and boron based on objectives in Table 3-8 of the Basin Plan would not exceed the water quality objectives. Table 2 presents exceedances of the mineral water quality objectives by comparing daily values to the objectives and by comparing 12 month flow weighted average concentrations to the objectives.

Table 2. Comparison of Exceedances of Mineral Objectives based on Daily and 12 Month Flow Weighted Averages[1]

Location	TMDL Reach	Chloride[2]		Sulfate[3]		TDS[4]		Boron[5]	
		D	W	D	W	D	W	D	W
Upper Watershed									
Arroyo Las Posas at Somis	Mid 6	×	✓	×	✓	×	×	✓	✓
Arroyo Las Posas at Seminary Rd.	Lower 6	×	✓	×	✓	×	×	×	✓
Arroyo Las Posas at Hitch Blvd.	Border 6/7	×	✓	×	×	×	×	✓	✓
Arroyo Simi below Highway 118	Mid 7	×	✓	×	×	×	×	✓	✓
Arroyo Simi at Madera Rd.	Upper 7	×	✓	×	×	×	×	×	✓
Lower Watershed									
Calleguas Creek above Potrero Rd	3	×	✓	×	×	×	✓	✓	✓
Conejo Creek at Howard Rd.	9A	×	×	×	✓	×	✓	✓	✓
Conejo Creek @ Diversion	9B	×	✓	×	✓	×	✓	✓	✓
Conejo Creek Below Hill Canyon	10	×	×	×	✓	✓	✓	✓	✓
Arroyo Santa Rosa	11	×	✓	×	✓	×	×	×	✓
South Fork Arroyo Conejo	13	×	✓	×	✓	×	×	✓	✓
Oxnard Plain									
Revolon Slough	4	×	✓	×	×	×	×	×	×

[1] Check indicates reaches meeting the objective, and "x" indicates reaches failing to meet objective.
[2] D = daily concentrations < 150 mg/L and W = 12 month flow weighted average concentrations < 150 mg/L.
[3] D = daily concentrations < 250 mg/L and W = 12 month flow weighted average concentrations < 250 mg/L.
[4] D = daily concentrations < 850 mg/L and W = 12 month flow weighted average concentrations < 850 mg/L.
[5] D = daily concentrations < 1.0 mg/L and W = 12 month flow weighted average concentrations < 1.0 mg/L.

Table 2 illustrates that if we compare current objectives to 12-month flow weighted average concentrations; it would result in the following:

- There is increased compliance with the chloride objective in seven of the nine reaches.
- There is increased compliance with the sulfate objective in six of the nine reaches.
- There is increased compliance with the TDS objective in four of the nine reaches.
- There is increased compliance with the chloride objective in three of the four reaches.

Therefore, we request that the water quality data be reevaluated based on the appropriate objective as a flow-weighted annual average and the water bodies no longer exceeding the mineral water quality objectives in the Calleguas Creek watershed be delisted. The original Basin Plan objectives from 1975 are included as an attachment to this letter.

Natural Sources of Pollutants Lead to Exceedances of Water Quality Objectives

When considering natural sources of pollutants, the Listing Policy's recommended alternatives allow Regional Boards to add, remove, or not list waters without regard to sources of pollutants. Additionally, the Listing Policy states that de-listing recommendations based on natural sources would require review and approval by the SWRCB. Groundwater is a natural source of boron, chloride, sulfate, and TDS that enters surface water in the watershed from shallow aquifers. Groundwater is considered a major source of chloride in the CCW (LARWQCB, 2002). Additionally, groundwater data collected from the City of Simi Valley dewatering wells show high levels of sulfate and TDS (Table 3). Surface water data collected upstream of the other major source of boron, chloride, sulfate, and TDS (the Simi Valley Water Quality Control Plant) indicate that water quality upstream of the plant regularly exceeds the objectives in Table 3-8 of the Basin Plan (Table 4). Although not applicable to these reaches, these objectives are used for comparison because they are the objectives on which the listings are based. The area upstream of the Simi Valley Water Quality Control Plant is urbanized. However, urban areas are not considered a major source of these constituents. Surface water samples collected in Reach 8 (Tapo Canyon) and analyzed for TDS exceed objectives (Table 5). Reach 8 drains primarily natural areas with minimal amounts of urban development.

The aforementioned information suggests that natural sources of boron, chloride, sulfate, and TDS lead to exceedances of water quality objectives. As such, Reaches 6, 7, and 8 should be removed from the 2006 303(d) list.

Table 3. Sulfate and TDS Concentrations in City of Simi Valley Dewatering Wells Located along Reach 7

Constituent	n	Range (mg/L)	Median (mg/L)	Criterion (mg/L)	# of Exceedances	% Exceedance
Sulfate	12	630 – 1070	758	250	12	100%
TDS	12	1579 – 1677	1633	850	12	100%

Table 4. Boron, Chloride, Sulfate, and TDS Concentrations in Reach 7 Surface Water Upstream of the Simi Valley Water Quality Control Plant

Constituent	n	Range (mg/L)	Median (mg/L)	Criterion (mg/L)	# of Exceedances	% Exceedance
Boron	34	0.4 – 1.5	1.1	1.0	22	65%
Chloride	82	50.8 – 213	147	150	49	60%
Sulfate	34	270 – 1176	814	250	34	100%
TDS	41	657 – 2151	1768	850	40	98%

Table 5. Chloride and TDS Concentrations in Reach 8 Surface Water

Constituent	n	Range (mg/L)	Median (mg/L)	Criterion (mg/L)	# of Exceedances	% Exceedance
Chloride	8	13 – 120	52	150	0	0%
TDS	8	220 – 2000	909	850	5	63%

CCW Reaches 12 (North Fork Conejo Creek) and 13 (South Fork Conejo Creek) – Mineral Water Quality

When considering natural sources of pollutants, the Listing Policy's recommended alternatives allow Regional Boards to add, remove, or not list waters without regard to sources of pollutants. Additionally, the Listing Policy states that delisting recommendations based on natural sources would require review and approval by the SWRCB. Surface water data collected upstream of the Hill Canyon Wastewater Treatment Facility indicate that sulfate and TDS in Reach 12 (Table 6) and chloride and sulfates in Reach 13 (Table 8) regularly exceed objectives. The area upstream of the Hill Canyon Wastewater Treatment Facility is urbanized. However, urban areas are not considered a major source of these constituents.

The aforementioned information suggests that natural sources of chloride, sulfate, and TDS lead to exceedances of water quality objectives. As such, Reaches 12 and 13 should be removed from the 2006 303(d) list.

Table 6. Boron, Chloride, Sulfate, and TDS Concentrations in Reach 12 Surface Water

Constituent	n	Range (mg/L)	Median (mg/L)	Criterion (mg/L)	# of Exceedances	% Exceedance
Sulfate	162	43 – 468	279	150	134	83%
TDS	212	236 – 1598	1142	850	192	91%

Table 7. Chloride and Sulfate Concentrations in Reach 13 Surface Water

Constituent	n	Range (mg/L)	Median (mg/L)	Criterion (mg/L)	# of Exceedances	% Exceedance
Chloride	202	54 – 398	174	150	179	89%
Sulfate	167	84 – 571	306	250	146	87%

Thank you for your consideration of these comments. If you have any questions, please feel free to contact me at (805) 583-6793.

Sincerely,

Timothy P. Nanson
Director of Public Works

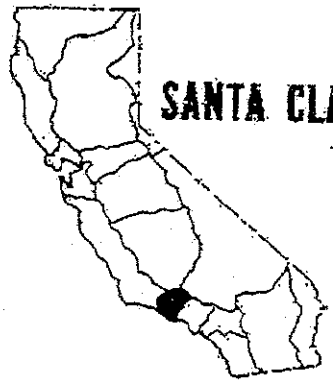
Attachments

cc: Assistant City Manager, L. Behjan
Assistant Director of Public Works, J. Deakin
Principal Engineer, J. Behjan
Jon Bishop, Regional Water Quality Control Board, Los Angeles Region

RETURN TO PLANNING

Attachment 1

Water Quality Control Plan Report



SANTA CLARA RIVER BASIN (4A)

STATE WATER RESOURCES CONTROL BOARD

REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION (4)

Part I, PART II, VOL. I

March 1975

TABLE 4-1

MINERAL QUALITY OBJECTIVES FOR SURFACE WATERS

Stream/Station[b]	Objectives (mg/l)[a] TDS	Sulfate	Chloride	Boron	Nitrogen[c]	SERD[d]
Ventura River:						
At Matilija Hot Spring	600	300	50	1.0	5	[e]
At Casitas Vista Road	800	300	60	1.5	5	[e]
At Shell Road	1,500	600	600	1.5	10	5.0
Santa Clara River:						
At West Pier Highway 99	900	450	80	1.5	10	5.0
At Los Angeles and Ventura County Line	1,100	550	90	1.5	5	10.0
At A Street, Fillmore	1,300	650	80	1.5	5	5.0
Santa Paula Bridge	1,300	650	80	1.5	5	5.0
At Saticoy Diversion Dam	1,100	550	60	1.5	5	5.0
At United States Highway 101	800	400	60	1.5	5	5.0
Santa Paula Creek:						
At Santa Paula Water Works-Diversion Dam	600	300	60	1.0	5	5.0
Sespe Creek:						
(500 feet downstream from Little Sespe Creek, at gaging station)	800	400	60	1.5	5	5.0
Piru Creek:						
(at gaging station below Santa Felicia Dam)	950	500	50	1.5	5	5.0
Calleguas Creek:						
At Potrero Road	850	400	50	1.0	5	[e]

MINERAL QUALITY OBJECTIVES FOR SURFACE WATERS

Stream/Station[b]	Objectives (mg/l)[a] TDS	Sulfate	Chloride	Boron	Nitrogen[c]	SERD[d]	SAR
Ventura River:							
At Matilija Hot Spring	600	300	50	1.0	5	e/	
At Casitas Vista Road	800	300	60	1.5	5	e/	
At Shell Road	1,500	600	600	1.5	10	5.0	
Santa Clara River:							
At West Pier Highway 99	900	450	80	1.5	10	5.0	
At Los Angeles and Ventura County Line	1,100	550	90	1.5	5	10.0	
At A Street, Fillmore	1,300	650	80	1.5	5	5.0	
Santa Paula Bridge	1,300	650	80	1.5	5	5.0	
At Saticoy Diversion Dam	1,100	550	60	1.5	5	5.0	
At United States Highway 101	800	400	60	1.5	5	5.0	
Santa Paula Creek:							
(Above) At Santa Paula Water Works-Diversion Dam	600	300	60	1.0	5	5.0	
Sespe Creek:							
(Above gaging station, 500 feet downstream from Little Sespe Creek, at gaging station)	800	400	60	1.5	5	5.0	
Piru Creek:							
(Above (at gaging station below Santa Felicia Dam)	950	500	50 (75)	1.5	5	5.0	
Calleguas Creek:							
(Above) At Potrero Road	850	400 (250)	50 (150)	1.0	5 (10)	e/	

Proposed revision on next page

00034

Administrative Record pages describing objective changes and data

Page: 34 | Piru Creek above gaging station below Santa Felicia Dam

Recommended Change:

Change Cl objective from 50 to 75 mg/l.

Justification: There are no point source discharges to Piru Creek. Chloride levels represent natural flow conditions which are not controllable by the Board. Most of the flow in the Creek is State Project water released from Lake Piru. The quality of State Project water is not expected to improve and has typically reached levels of 61 mg/l chloride. No significant impact on beneficial uses is expected from this change in the chloride objective.

see also Table 3 attached

Page: 34 | Calleguas Creek above Potrero Road

Recommended Change:

Change SO4 objective from 400 to 250 mg/l

Change Cl objectnie from 50 to 150 mg/l

Change N objective from 5 to 10 mg/l

Justification: The current Basin Plan objectives for surface water and groundwater in this portion of the basin are inconsistent in view of the continuity of these waters. The proposed changes correct this inconsistency. In addition the proposed numbers reflect current water quality. Within this reach there are two controllable point source discharges: Thousand Oaks Hill Canyon and Camarillo STP. Both discharge into Conejo Creek tributary to Calleguas Creek and comply with waste discharge requirements prescribed by this Board. The proposed changes will not have any significant effect upon the existing or potential beneficial uses.

see also Table 4 attached

TABLE 4

Calleguas Creek

Station	Parameter	1970 – 1974		1975 – 1977	
		Range High	Arithmetic Ave	Range High	Arithmetic Ave
Camarillo State Hospital, gaging sta.	SO_4	–	–	300	193 (27)
	Cl	–	–	169	12.4 (27)
	N	–	–	14.9	4.84 (27)

Note:
The number in parentheses indicates number of samples