January 27, 2006
Craig J. Wilson, Chief
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Division of Water Quality
State Water Resources Control Board
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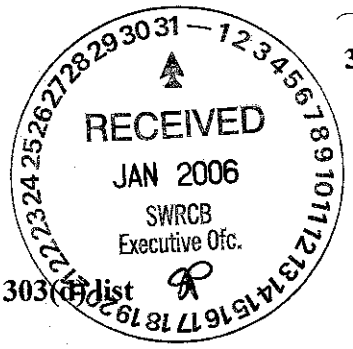

303 (d) Deadline: 1/31/06

Subject: Supplementary Comments on Draft 2006 303(d) list

Dear Mr. Wilson:

The members of the Calleguas Creek Watershed Management Plan (CCWMP) have asked Larry Walker Associates to provide additional information to further support comments presented in the January 18, 2006 letter signed by CCWMP Chair Judy Mikels. This letter provides supplementary information for comments provided in the original letter on zinc and nickel listed in Reach 1 of the Calleguas Creek watershed (CCW).

We are requesting your consideration of this information because we were only recently able to accurately identify where the samples that were used in the original listings were collected and because a TMDL is currently required to be completed for these constituents by a Consent Decree this year.

Background

The original recommendations for listings for total nickel and total zinc in Calleguas Creek Reach 1 (Mugu Lagoon) were presented in the LA Regional Water Quality Control Board's 1996 Water Quality Assessment and Documentation. However, a review of the available data does not suggest there are impairments.

A review of the available information revealed how US Navy sampling locations were utilized in 1994 and 1999 to characterize Reach 1. The review led to an understanding that not all of the samples collected by the Navy were intended to characterize the lagoon. Rather, the great majority of the samples collected by the Navy in 1994 and subsequent years were intended to investigate the sources of pollutants to the lagoon. The transport mechanism for many of these sources being through a network of drainage ditches on the Navy base partially displayed in Figures 1 and 2.

Subsequent to the listings, dissolved zinc and nickel data were collected through two monitoring programs in addition to the Navy. These programs were the Calleguas Creek Characterization Study (CCCS, 1998-1999) and the Calleguas Creek Watershed Metals Total Maximum Daily Load Monitoring Program (CCTMDL, 2003-2004).

Process for Determining Data to Use in Analysis

Two steps were taken to determine which data were appropriate for consideration in the 303(d) analysis. The first was to identify any non-detected data with detection limits exceeding the corresponding CTR criteria. Non-detected data with detection limits exceeding the corresponding CTR criteria were not used in the 303(d) listing analysis per section 6.1.5.5 of the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy). These data were not used because one would not be able to ascertain whether the concentration in the sample exceeded the criteria or not. As such, it would be inappropriate to use these data to evaluate impairments to beneficial uses.

The second step was to identify data collected within what could be considered the receiving waters of Reach 1 Mugu Lagoon. Samples collected in Reach 1 to characterize the lagoon were retained for the 303(d) listing analysis. Samples collected near Reach 1 to characterize sources of contamination to the lagoon were not considered. This approach is similar to other 303(d) listing analysis where only data collected within the receiving water portion of the reach is considered and land use discharge data are not. Samples collected for the purpose of characterizing sources of contamination to the lagoon could be considered for use in listing the specific drainage ditches as has been done with Oxnard Drains No. 2 and No. 3.

Sampling locations and what the corresponding data characterize for the Calleguas Creek Characterization Study, TMDL Monitoring Program, and the Navy after 1999 are relatively well known. However, for data collected by the Navy between 1994 and 1999 it is not as clear which sampling locations corresponded to sites that characterized the lagoon or characterized sources of contamination to the lagoon.

The following two reports completed for the Navy provided information regarding sample collection locations and whether the locations provided information on receiving waters or discharge data:

- Draft Final Phase I Remedial Investigation (Phase 1 RI) Technical Memorandum for Naval Air Weapons Station Point Mugu, California (Tetra Tech, 1998)
- Draft Remedial Investigation for Groundwater (GW RI) Report Naval Base Ventura County Point Mugu Site, California (Tetra Tech, 2001)

The Phase 1 RI and GW RI provide narrative descriptions of what each sampling location was intended to characterize in 1994 and 1999, respectively. These two reports were used to determine which samples would be used based on whether they would have characterized the lagoon or sources of contamination to the lagoon. The Phase 1 RI discusses water sampling conducted in 1994 in section 8.4 (pg 8-4 through 8-7) and section 12.4 (pg 12-6 through 12-11). The GW RI discusses water sampling conducted in 1999 in section 4.4.3 (pg 4-15 through 4-16). Maps 1 and 2 display sampling locations used in 1994 and 1999, respectively. These maps were not relied upon to determine whether a sampling location would characterize the lagoon or

sources of contamination to the lagoon because of potential issues associated with GIS coordinates used for identifying locations and land features such as drains.

It is important to consider the intended purpose of sampling locations as described in the Phase 1 RI and the GW RI because they offer insight into whether each given sample was collected with the intent of representing receiving water or discharges to receiving waters. The intended purpose allows insight into the condition at the sampling location during the time of sample collection.

Results

Zinc Water Column Listing

Appendix 1 presents a table listing all of the dissolved zinc data available to us that were collected in and around the lagoon. Appendix 1 indicates which program collected the samples, the date of sample collection, and the sample source. The sample source indicates what type of waterbody the sample was collected in. Sample sources included drainage ditches, mudflat areas, tidal creeks and marshes, and receiving waters. Additionally, Appendix 1 outlines which dissolved zinc data were used to conduct the 303(d) listing analysis as well as the reasoning for why certain samples were not used.

Table 1 presents a summary of dissolved zinc data collected within the lagoon. The data presented in Table 1 do not show any exceedances in Mugu Lagoon of the dissolved zinc criteria. Regardless of when or where the data were collected, none of the available data exceedance the CTR criterion for zinc. As such, the data does not support a zinc listing in the lagoon and therefore the listing should be removed from the 2006 303(d) list.

Table 1. Dissolved Zinc Data Summary for CCW Reach 1 (Mugu Lagoon)

n	Range (ug/L)	Median [1] (ug/L)	Criterion (ug/L)	# of Exceedances	% Exceedance
59	1.17-31	5.82	81	0	0

Nickel Water Column Listing

Appendix 2 presents a table listing all of the dissolved nickel data available to us that were collected in and around the lagoon. Appendix 2 provides the same information as discussed above for Appendix 1.

Table 2 presents a summary of dissolved nickel data collected within the lagoon. The data presented in Table 2 show three exceedances in Mugu Lagoon of the dissolved nickel criteria out of a sample size of 49. Per Table 4.1 of the listing guidance, the maximum number of measured

exceedances allowed to remove a water segment from the section 303(d) list for toxicants with a sample size of 49 is four. As such, the data does not support a nickel listing in the lagoon and therefore the listing should be removed from the 2006 303(d) list. Additionally, please note the data available for the 1994, 1998, and 2002 listings would not have supported a listing as well.

Table 2. Dissolved Nickel Data Summary for CCW Reach 1 (Mugu Lagoon)

n	Range (ug/L)	Median [1] (ug/L)	Criterion (ug/L)	# of Exceedances	% Exceedance
49	<6.8*-13.78	2.65	8.3	3	6%

* < Represents a non-detect at a detection limit of 6.8 ug/L

Thank you for your consideration of these comments. If you have any questions, please feel free to contact me at (310) 394-1036.

Yours truly,

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Project Scientist

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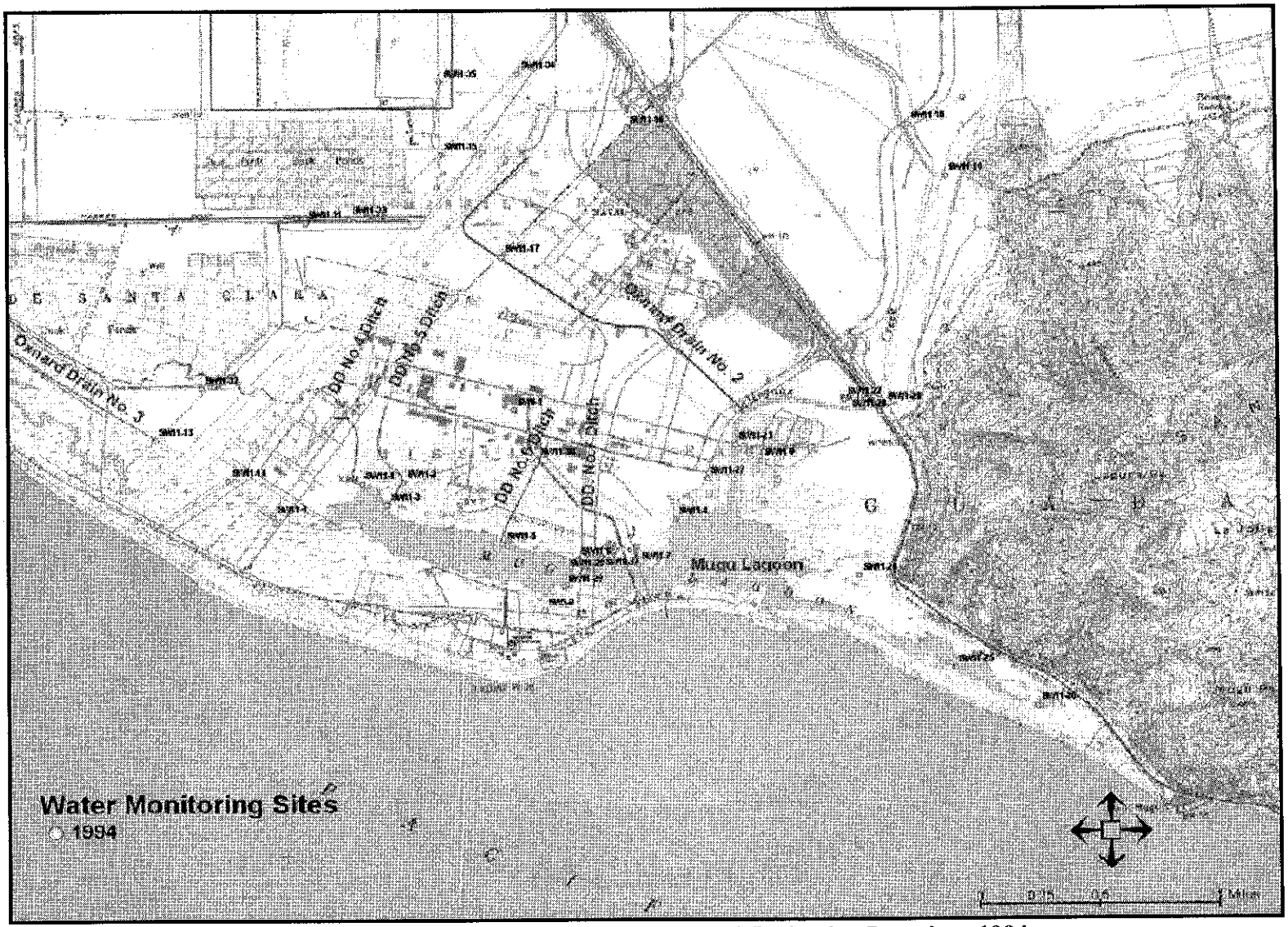

Figure 1. Dissolved Nickel and Zinc Water Monitoring Locations 1994

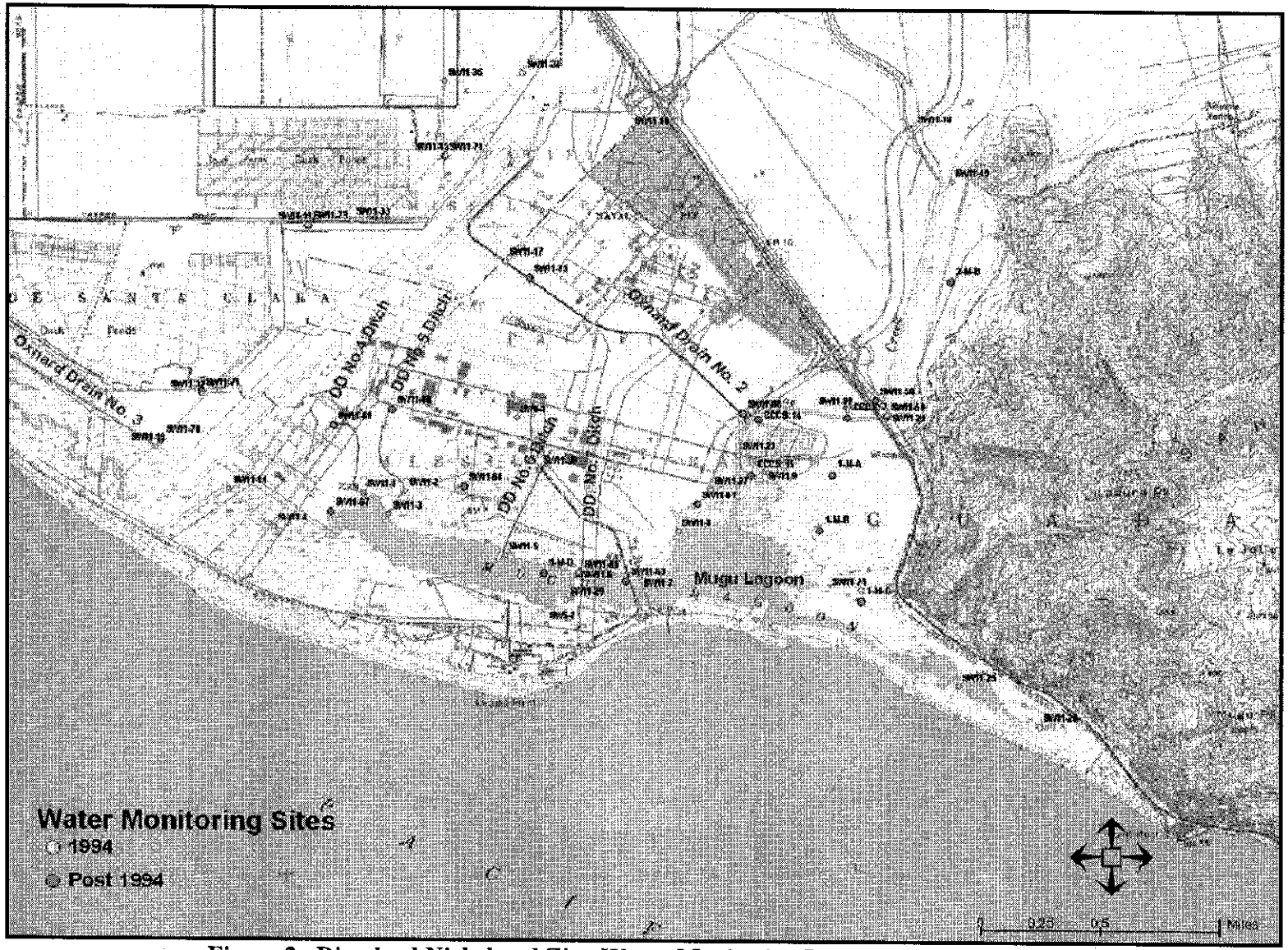

Figure 2. Dissolved Nickel and Zinc Water Monitoring Locations 1994 to Present

Attachment 1. Available Data for the Calleguas Creek Watershed Reach 1 Dissolved Zinc 303(d) Listing Analysis

Dissolved Zinc Data Used in 303(d) Listing Analysis							
Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis
1	Navy	CC-MS-1	Receiving Water	2/26/04	=	19.7	Yes
1	Navy	CC-MS-1	Receiving Water	2/3/04	=	18.8	Yes
1	Navy	CC-MS-1	Receiving Water	7/31/03	=	31	Yes
1	Navy	CC-MS-1	Receiving Water	6/10/03	=	10.8	Yes
1	Navy	CC-MS-1	Receiving Water	5/3/03	=	29.9	Yes
1	CC TMDL	1-M-A	Receiving Water	10/27/04	=	3.11	Yes
1	CC TMDL	1-M-A	Receiving Water	8/24/04	=	10.3	Yes
1	CC TMDL	1-M-B	Receiving Water	8/24/04	=	5.82	Yes
1	CC TMDL	1-M-C	Receiving Water	8/24/04	=	4.63	Yes
1	CC TMDL	1-M-D	Receiving Water	8/24/04	=	1.82	Yes
1	CC TMDL	1-M-B	Receiving Water	7/28/04	=	5.04	Yes
1	CC TMDL	1-M-A	Receiving Water	7/28/04	=	10.1	Yes
1	CC TMDL	1-M-D	Receiving Water	7/28/04	=	2.3	Yes
1	CC TMDL	1-M-C	Receiving Water	7/28/04	=	2.82	Yes
1	CC TMDL	1-M-D-08	Receiving Water	6/30/04	=	1.17	Yes
1	CC TMDL	1-M-C-08	Receiving Water	6/30/04	=	3.58	Yes
1	CC TMDL	1-M-B-08	Receiving Water	6/30/04	=	2.07	Yes
1	CC TMDL	1-M-A-08	Receiving Water	6/30/04	=	17.1	Yes
1	CC TMDL	1-M-D-07	Receiving Water	5/27/04	=	1.54	Yes
1	CC TMDL	1-M-C-07	Receiving Water	5/27/04	=	7.96	Yes
1	CC TMDL	1-M-B-07	Receiving Water	5/27/04	=	9.81	Yes
1	CC TMDL	1-M-A-07	Receiving Water	5/27/04	=	10.8	Yes
1	CC TMDL	1-M-D-06	Receiving Water	4/28/04	=	1.58	Yes
1	CC TMDL	1-M-C-06	Receiving Water	4/28/04	=	6.74	Yes
1	CC TMDL	1-M-B-06	Receiving Water	4/28/04	=	7.64	Yes
1	CC TMDL	1-M-A-06	Receiving Water	4/28/04	=	9.62	Yes
1	CC TMDL	1-M-C-04	Receiving Water	3/1/04	=	6.9	Yes
1	CC TMDL	1-M-D-05	Receiving Water	3/25/04	=	4.21	Yes
1	CC TMDL	1-M-C-05	Receiving Water	3/25/04	=	2.61	Yes
1	CC TMDL	1-M-B-05	Receiving Water	3/25/04	=	4.84	Yes
1	CC TMDL	1-M-A-05	Receiving Water	3/25/04	=	6.6	Yes
1	CC TMDL	1-M-D-04	Receiving Water	3/1/04	=	3.21	Yes
1	CC TMDL	1-M-A-04	Receiving Water	3/1/04	=	8.49	Yes
1	CC TMDL	-03/1-WER-D-	Receiving Water	1/27/04	=	4.81	Yes
1	CC TMDL	1-M-C-03	Receiving Water	1/27/04	=	5.28	Yes
1	CC TMDL	1-M-B-03	Receiving Water	1/27/04	=	7.43	Yes
1	CC TMDL	1-M-A-03	Receiving Water	1/27/04	=	7.46	Yes
1	CC TMDL	1-M-D-02	Receiving Water	12/2/03	=	2.98	Yes
1	CC TMDL	1-M-B-02	Receiving Water	12/2/03	=	5.18	Yes

1	CC TMDL	1-M-A-02	Receiving Water	12/2/03	=	4.05	Yes
1	CC TMDL	1-M-D	Receiving Water	8/26/03	=	2.15	Yes
1	CC TMDL	1-M-C	Receiving Water	8/26/03	=	2.27	Yes
1	CC TMDL	1-M-B	Receiving Water	8/26/03	=	2.88	Yes
1	CC TMDL	1-M-A	Receiving Water	8/26/03	=	2.2	Yes
1	Navy	SW11-69	Mudflat	2/3/99	<	10.4	Yes
1	Navy	SW11-68	Tidal Creek	2/3/99	<	10.4	Yes
1	Navy	SW11-67	Tidal Creek	2/3/99	<	10.4	Yes
1	Navy	SW11-66	Tidal Marsh	2/3/99	<	10.4	Yes
1	Navy	SW11-64	Mudflat	2/3/99	<	10.4	Yes
1	Navy	SW11-63	Mudflat	2/3/99	<	10.4	Yes
1	Navy	SW11-61	Tidal Creek	2/3/99	<	10.4	Yes
1	Navy	SW11-22	Receiving Water	2/2/94	<	13.3	Yes
1	Navy	SW11-24	Receiving Water	2/1/94	<	1.5	Yes
1	Navy	SW11-23	Receiving Water	1/28/94	<	4.4	Yes
1	Navy	SW11-26	Receiving Water	1/26/94	<	5.6	Yes
1	Navy	SW11-25	Receiving Water	1/26/94	<	5.6	Yes
1	CCCS	CCCS: 15	Receiving Water	5/5/99	=	5.6	Yes
1	CCCS	CCCS: 15	Receiving Water	2/3/99	=	18	Yes
1	CCCS	CCCS: 15	Receiving Water	11/5/98	=	8.4	Yes

Dissolved Zinc Data That Was Not Used in 303(d) Listing Analysis

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
NA	Navy	SW11-1	Drainage Ditch	1/25/94	<	1.5	No	The Phase 1 RI (pg 12-6) identifies this sampling location as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to drainage ditch No. 4.
NA	Navy	SW11-2	Drainage Ditch	1/25/94	<	1.5	No	The Phase 1 RI (pg 12-6) identifies these sampling locations as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating they were established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests these sites correspond to drainage ditch No. 5.
NA	Navy	SW11-3	Drainage Ditch	1/25/94	<	1.5	No	
NA	Navy	SW11-5	Drainage Ditch	1/26/94	<	5.6	No	The Phase 1 RI (pg 12-6) identifies this sampling location as a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponding to drainage ditch No. 6.

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
NA	Navy	SW11-4	Drainage Ditch	1/31/94	<	1.5	No	The Phase 1 RI (pg 12-6) identifies this sampling location as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 shows this site may correspond to Oxnard Drain No. 3.
NA	Navy	SW11-32	Drainage Ditch	2/2/94	<	13.3	No	The Phase 1 RI (pg 12-7) identifies this sampling location as being a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to a drainage ditch off of the Navy base.
NA	Navy	SW11-7	Drainage Ditch	1/29/94	<	1.5	No	The Phase 1 RI (pg 12-6) identifies these sampling locations as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating they were established to characterize discharges to the lagoon and not the lagoon itself. It is not clear on Map 1 which discharges these sites corresponds to.
NA	Navy	SW11-27	Drainage Ditch	1/31/94	<	1.5	No	
NA	Navy	SW11-29	Drainage Ditch	1/31/94	<	1.5	No	
NA	Navy	SW11-37	Drainage Ditch	1/29/94	<	1.5	No	
NA	Navy	SW11-6	Drainage Ditch	1/31/94	<	1.5	No	
NA	Navy	SW11-8	Drainage Ditch	1/31/94	<	1.5	No	
NA	Navy	SW11-9	Drainage Ditch	2/2/94	<	13.3	No	
NA	Navy	SW11-28	Drainage Ditch	2/3/94	<	3.3	No	The Phase 1 RI (pg 12-7) identifies this sampling location as a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponding to drainage ditch No. 7.
NA	Navy	SW11-30	Drainage Ditch	2/3/94	<	18.4	No	The Phase 1 RI (pg 12-7) identifies this sampling location as a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to drainage ditch No. 6.
NA	Navy	SW11-33	Drainage Ditch	2/4/94	=	24.4	No	The Phase 1 RI (pg 12-7) identifies this sampling location as being a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to a drainage ditch in the upper northwestern portion of the base.
NA	Navy	SW11-34	Drainage Ditch	1/29/94	=	36	No	The Phase 1 RI (pg 12-7) identifies these sampling locations as being in small drainage channels indicating they were established to
NA	Navy	SW11-35	Drainage Ditch	2/4/94	<	20	No	

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
NA	Navy	SW11-60	Drainage Ditch	2/3/99	<	10.4	No	The GW RI (pg 4-20) identifies this sampling location as being within the freshwater drainage system and are generally connected to Mugu Lagoon indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 2 suggests this site corresponds to Oxnard Drain No. 2.
NA	Navy	SW6-1	Drainage Ditch	1/25/94	<	23	No	The Phase 1 RI (pg 9-3) identifies this sampling location as being used to characterize water that flows along a shallow swale to South Mugu Road and to a storm sewer that ultimately discharges to drainage ditch No. 6 indicating this sampling location was established to characterize discharges to the lagoon and not the lagoon itself.
1	Navy	SW5-2	Drainage Ditch	1/27/94	<	7.5	No	The Phase 1 RI (pg 8-6) states these samples were collected to determine if surface water is transporting contaminants off site and toward Mugu Lagoon...., SW5-2, which is in a drainage channel that discharges to Mugu Lagoon. The Phase 1 RI indicates this sample was collected to characterize discharges to the lagoon and not the lagoon itself.
1	Navy	SW5-2	Drainage Ditch	1/27/94	<	7.5	No	
1	Navy	SW5-2	Drainage Ditch	1/27/94	<	7.5	No	
1	Navy	SW5-2	Drainage Ditch	1/27/94	<	7.5	No	
1	Navy	SW5-2	Drainage Ditch	1/27/94	<	1.5	No	
1	Navy	SW5-2	Drainage Ditch	1/28/94	<	7.5	No	
1	Navy	SW5-2	Drainage Ditch	1/28/94	<	1.5	No	
1	Navy	SW5-2	Drainage Ditch	1/28/94	<	15.5	No	
1	Navy	SW5-2	Drainage Ditch	2/2/94	<	66.5	No	
1	Navy	SW5-2	Drainage Ditch	2/2/94	<	66.5	No	
1	Navy	SW5-2	Drainage Ditch	2/2/94	<	66.5	No	
1	Navy	SW5-2	Drainage Ditch	2/2/94	<	66.5	No	
1	Navy	SW5-2	Drainage Ditch	2/2/94	<	66.5	No	
1	Navy	SW5-2	Drainage Ditch	2/3/94	<	66.5	No	
1	Navy	SW5-2	Drainage Ditch	2/3/94	<	66.5	No	
1	Navy	SW5-2	Drainage Ditch	2/3/94	<	13.3	No	

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
2	Navy	SW11-21	Receiving Water	2/1/94	<	15.6	No	These sampling locations are located in Reach 2 (Lower Calleguas Creek) which is considered a separate waterbody in the listing process.
2	Navy	SW11-19	Receiving Water	2/3/94	=	33.3	No	
2	CCCS	CCCS: 7	Receiving Water	8/5/98	=	5.6	No	
2	CCCS	CCCS: 7	Receiving Water	8/5/98	=	5.6	No	
2	CCCS	CCCS: 7	Receiving Water	11/5/98	=	25	No	
2	CCCS	CCCS: 7	Receiving Water	11/5/98	=	25	No	
2	Navy	SW11-59	Receiving Water	2/3/99	=	22.8	No	
2	CCCS	CCCS: 7	Receiving Water	2/3/99	=	21	No	
2	CCCS	CCCS: 7	Receiving Water	2/3/99	=	21	No	
2	CCCS	CCCS: 7	Receiving Water	5/5/99	=	10	No	
2	CCCS	CCCS: 7	Receiving Water	5/5/99	=	10	No	
2	Navy	CC-SS-1	Receiving Water	6/10/03	=	16.2	No	
2	CC TMDL	2-M-B	Receiving Water	8/27/03	=	18.9	No	
2	CC TMDL	2-M-B-02	Receiving Water	12/2/03	=	14.1	No	
2	CC TMDL	2-M-B-03	Receiving Water	1/27/04	=	16.7	No	
2	Navy	CC-SS-1	Receiving Water	2/3/04	=	30.1	No	
2	Navy	CC-SS-1	Receiving Water	2/26/04	=	21.8	No	
2	CC TMDL	2-M-B-R	Receiving Water	2/26/04	=	3.94	No	
2	CC TMDL	2-M-B-04	Receiving Water	3/1/04	=	9.36	No	
2	CC TMDL	2-M-B-05	Receiving Water	3/25/04	=	12.8	No	
2	CC TMDL	-B-06 (+MS/M	Receiving Water	4/28/04	=	13.6	No	
2	CC TMDL	2-M-B-07	Receiving Water	5/27/04	=	14.6	No	
2	CC TMDL	2-M-B-08	Receiving Water	6/30/04	=	9.08	No	
2	CC TMDL	2-M-B	Receiving Water	7/28/04	=	11.4	No	
2	CC TMDL	2-M-B	Receiving Water	8/24/04	=	6.83	No	
2	CC TMDL	2-M-B	Receiving Water	10/27/04	=	12.9	No	
4	Navy	SW11-20	Receiving Water	2/1/94	<	52.2	No	These sampling locations are located in Reach 4 (Revolon Slough) which is considered a separate waterbody in the listing process.
4	Navy	SW11-18	Receiving Water	2/3/94	<	12.4	No	
4	Navy	SW11-58	Receiving Water	2/3/99	=	7.9	No	
4	Navy	RS-SS-1	Receiving Water	6/10/03	=	16.7	No	
4	Navy	RS-SS-1	Receiving Water	2/3/04	=	40.3	No	
4	Navy	RS-SS-1	Receiving Water	2/26/04	=	15.3	No	
ODD2	Navy	SW11-15	Drainage Ditch	1/29/94	<	4.8	No	These sampling locations are located in Duck Pond Agricultural Drain/Mugu Drain/Oxnard Drain No 2 which is considered a separate waterbody in the listing process.
ODD2	Navy	SW11-16	Drainage Ditch	1/30/94	<	6.5	No	
ODD2	Navy	SW11-17	Drainage Ditch	1/31/94	<	32.8	No	
ODD2	Navy	SW11-74	Drainage Ditch	2/3/99	<	9.4	No	
ODD2	Navy	SW11-75	Drainage Ditch	2/3/99	=	7.1	No	

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
ODD3	Navy	SW11-11	Drainage Ditch	1/30/94	<	1.5	No	These sampling locations are located in Rio De Santa Clara/Oxnard Drain No. 3 which is considered a separate waterbody in the listing process.
ODD3	Navy	SW11-12	Drainage Ditch	2/2/94	<	13.3	No	
ODD3	Navy	SW11-13	Drainage Ditch	2/3/94	<	13.3	No	
ODD3	Navy	SW11-14	Drainage Ditch	2/3/94	=	12.2	No	
ODD3	Navy	SW11-36	Drainage Ditch	2/4/94	=	65.6	No	
ODD3	Navy	SW11-70	Drainage Ditch	2/3/99	<	4.1	No	
ODD3	Navy	SW11-71	Drainage Ditch	2/3/99	<	2.1	No	
ODD3	Navy	SW11-72	Drainage Ditch	2/3/99	=	10	No	
ODD3	Navy	SW11-73	Drainage Ditch	2/3/99	=	5.7	No	

Attachment 2. Available Data for the Calleguas Creek Watershed Reach 1 Dissolved Nickel 303(d) Listing Analysis

Dissolved Nickel Data Used in 303(d) Listing Analysis							
Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis
1	Navy	SW11-23	Receiving Water	1/28/94	<	5.6	Yes
1	Navy	SW11-24	Receiving Water	2/1/94	<	6.8	Yes
1	Navy	SW11-22	Receiving Water	2/2/94	<	5	Yes
1	CCCS	CCCS: 15	Receiving Water	11/5/98	=	3.8	Yes
1	CCCS	CCCS: 15	Receiving Water	2/3/99	=	5.5	Yes
1	CCCS	CCCS: 15	Receiving Water	5/5/99	=	3.2	Yes
1	Navy	CC-MS-1	Receiving Water	6/10/03	=	11.4	Yes
1	Navy	CC-MS-1	Receiving Water	7/31/03	<	4.4	Yes
1	CC TMDL	1-M-A	Receiving Water	8/26/03	=	0.38	Yes
1	CC TMDL	1-M-B	Receiving Water	8/26/03	=	0.47	Yes
1	CC TMDL	1-M-C	Receiving Water	8/26/03	=	0.32	Yes
1	CC TMDL	1-M-D	Receiving Water	8/26/03	=	0.51	Yes
1	CC TMDL	1-M-A-02	Receiving Water	12/2/03	=	1.29	Yes
1	CC TMDL	1-M-B-02	Receiving Water	12/2/03	=	2.2	Yes
1	CC TMDL	1-M-D-02	Receiving Water	12/2/03	=	1.24	Yes
1	CC TMDL	1-M-A-03	Receiving Water	1/27/04	=	3.58	Yes
1	CC TMDL	1-M-B-03	Receiving Water	1/27/04	=	3.88	Yes
1	CC TMDL	1-M-C-03	Receiving Water	1/27/04	=	0.82	Yes
1	CC TMDL	D-03/1-WER-D-0	Receiving Water	1/27/04	=	1.73	Yes
1	Navy	CC-MS-1	Receiving Water	2/3/04	=	6.7	Yes
1	Navy	CC-MS-1	Receiving Water	2/26/04	=	8.6	Yes
1	CC TMDL	1-M-A-04	Receiving Water	3/1/04	=	5.82	Yes
1	CC TMDL	1-M-C-04	Receiving Water	3/1/04	=	6.34	Yes
1	CC TMDL	1-M-D-04	Receiving Water	3/1/04	=	3.03	Yes
1	CC TMDL	1-M-B-05	Receiving Water	3/25/04	=	4.29	Yes
1	CC TMDL	1-M-A-05	Receiving Water	3/25/04	=	4.78	Yes
1	CC TMDL	1-M-C-05	Receiving Water	3/25/04	=	1.09	Yes
1	CC TMDL	1-M-D-05	Receiving Water	3/25/04	=	1.05	Yes
1	CC TMDL	1-M-C-06	Receiving Water	4/28/04	=	3.97	Yes
1	CC TMDL	1-M-D-06	Receiving Water	4/28/04	=	1.24	Yes
1	CC TMDL	1-M-B-06	Receiving Water	4/28/04	=	4.45	Yes
1	CC TMDL	1-M-A-06	Receiving Water	4/28/04	=	4.49	Yes
1	CC TMDL	1-M-C-07	Receiving Water	5/27/04	=	2.65	Yes
1	CC TMDL	1-M-D-07	Receiving Water	5/27/04	=	1.00	Yes

1	CC TMDL	1-M-B-07	Receiving Water	5/27/04	=	3.13	Yes
1	CC TMDL	1-M-A-07	Receiving Water	5/27/04	=	13.8	Yes
1	CC TMDL	1-M-D-08	Receiving Water	6/30/04	=	0.74	Yes
1	CC TMDL	1-M-B-08	Receiving Water	6/30/04	=	1.24	Yes
1	CC TMDL	1-M-A-08	Receiving Water	6/30/04	=	1.88	Yes
1	CC TMDL	1-M-C-08	Receiving Water	6/30/04	=	1.63	Yes
1	CC TMDL	1-M-D	Receiving Water	7/28/04	=	0.85	Yes
1	CC TMDL	1-M-C	Receiving Water	7/28/04	=	1.05	Yes
1	CC TMDL	1-M-B	Receiving Water	7/28/04	=	2.91	Yes
1	CC TMDL	1-M-A	Receiving Water	7/28/04	=	4.61	Yes
1	CC TMDL	1-M-C	Receiving Water	8/24/04	=	3.59	Yes
1	CC TMDL	1-M-D	Receiving Water	8/24/04	=	0.56	Yes
1	CC TMDL	1-M-B	Receiving Water	8/24/04	=	2.95	Yes
1	CC TMDL	1-M-A	Receiving Water	8/24/04	=	5.57	Yes
1	CC TMDL	1-M-A	Receiving Water	10/27/04	=	3.19	Yes

Dissolved Nickel Data That Was Not Used in 303(d) Listing Analysis

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
1	Navy	SW11-25	Receiving Water	1/26/94	<	11.1	No	Detection Limit Greater than the criteria. (Listing Policy Section 6.1.5.5 Quantitation of Chemical Concentrations)
1	Navy	SW11-26	Receiving Water	1/26/94	<	11.1	No	
NA	Navy	SW11-5	Drainage Ditch	1/26/94	<	11.1	No	
NA	Navy	SW11-7	Drainage Ditch	1/29/94	<	11.2	No	
NA	Navy	SW11-15	Drainage Ditch	1/29/94	<	12.1	No	
NA	Navy	SW5-2	Drainage Ditch	2/2/94	<	25	No	
NA	Navy	SW5-2	Drainage Ditch	2/2/94	<	25	No	
NA	Navy	SW5-2	Drainage Ditch	2/2/94	<	25	No	
NA	Navy	SW5-2	Drainage Ditch	2/2/94	<	25	No	
NA	Navy	SW5-2	Drainage Ditch	2/2/94	<	25	No	
NA	Navy	SW5-2	Drainage Ditch	2/3/94	<	25	No	
NA	Navy	SW5-2	Drainage Ditch	2/3/94	<	25	No	
NA	Navy	SW11-61	Tidal Creek	2/3/99	<	9.4	No	
NA	Navy	SW11-63	Mudflat	2/3/99	<	9.4	No	
NA	Navy	SW11-64	Mudflat	2/3/99	<	9.4	No	
NA	Navy	SW11-67	Tidal Creek	2/3/99	<	9.4	No	
NA	Navy	SW11-66	Tidal Marsh	2/3/99	<	9.4	No	
NA	Navy	SW11-68	Tidal Creek	2/3/99	<	9.4	No	
NA	Navy	SW11-69	Mudflat	2/3/99	<	9.4	No	
NA	Navy	SW11-60	Drainage Ditch	2/3/99	<	9.4	No	
1	Navy	CC-MS-1	Receiving Water	5/3/03	<	11.6	No	

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
NA	Navy	SW5-2	Drainage Ditch	1/27/94	<	6.8	No	The Phase 1 RI (pg 8-6) states these samples were collected to determine if surface water is transporting contaminants off site and toward Mugu Lagoon...., SW5-2, which is in a drainage channel that discharges to Mugu Lagoon. The Phase 1 RI indicates this sample was collected to characterize discharges to the lagoon and not the lagoon itself.
NA	Navy	SW5-2	Drainage Ditch	1/27/94	<	6.8	No	
NA	Navy	SW5-2	Drainage Ditch	1/27/94	<	6.8	No	
NA	Navy	SW5-2	Drainage Ditch	1/27/94	=	8.3	No	
NA	Navy	SW5-2	Drainage Ditch	1/27/94	=	9.9	No	
NA	Navy	SW5-2	Drainage Ditch	1/28/94	<	6.8	No	
NA	Navy	SW5-2	Drainage Ditch	1/28/94	<	6.8	No	
NA	Navy	SW5-2	Drainage Ditch	1/28/94	<	6.8	No	
NA	Navy	SW5-2	Drainage Ditch	2/3/94	<	5	No	
NA	Navy	SW11-28	Drainage Ditch	2/3/94	=	7.8	No	The Phase 1 RI (pg 12-7) identifies this sampling location as a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponding to drainage ditch No. 7.
NA	Navy	SW11-30	Drainage Ditch	2/3/94	<	5.6	No	The Phase 1 RI (pg 12-7) identifies this sampling location as a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to drainage ditch No. 6.
NA	Navy	SW11-1	Drainage Ditch	1/25/94	<	7.7	No	The Phase 1 RI (pg 12-6) identifies this sampling location as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to drainage ditch No. 4.
NA	Navy	SW11-3	Drainage Ditch	1/25/94	<	7.4	No	The Phase 1 RI (pg 12-6) identifies these sampling locations as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating they were established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests these sites correspond to drainage ditch No. 5.
NA	Navy	SW11-2	Drainage Ditch	1/25/94	<	6.8	No	
NA	Navy	SW11-4	Drainage Ditch	1/31/94	<	6.8	No	The Phase 1 RI (pg 12-6) identifies this sampling locations as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 shows this site may correspond to Oxnard Drain No. 3.

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
NA	Navy	SW11-37	Drainage Ditch	1/29/94	<	6.8	No	The Phase 1 RI (pg 12-6) identifies these sampling locations as being either a drainage ditch, storm sewer, or sewage treatment plant outfall indicating they were established to characterize discharges to the lagoon and not the lagoon itself. It is not clear on Map 1 which discharges these sites corresponds to.
NA	Navy	SW11-8	Drainage Ditch	1/31/94	<	6.8	No	
NA	Navy	SW11-29	Drainage Ditch	1/31/94	=	7.3	No	
NA	Navy	SW11-27	Drainage Ditch	1/31/94	=	8.8	No	
NA	Navy	SW11-6	Drainage Ditch	1/31/94	=	10.9	No	
NA	Navy	SW11-9	Drainage Ditch	2/2/94	<	5	No	
NA	Navy	SW11-33	Drainage Ditch	2/4/94	<	6.7	No	The Phase 1 RI (pg 12-7) identifies this sampling location as being a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to a drainage ditch in the upper northwestern portion of the base.
NA	Navy	SW11-35	Drainage Ditch	2/4/94	=	5.6	No	The Phase 1 RI (pg 12-7) identifies these sampling locations as being in small drainage channels indicating they were established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests these sites correspond to drainage ditches off of the Navy base, possibly Oxnard Drain No. 2.
NA	Navy	SW11-34	Drainage Ditch	1/29/94	<	5	No	
NA	Navy	SW11-32	Drainage Ditch	2/2/94	<	5	No	The Phase 1 RI (pg 12-7) identifies this sampling location as being a small drainage channel indicating it was established to characterize discharges to the lagoon and not the lagoon itself. Map 1 suggests this site corresponds to a drainage ditch off of the Navy base.
NA	Navy	SW6-1	Drainage Ditch	1/25/94	<	6.8	No	The Phase 1 RI (pg 9-3) identifies this sampling location as being used to characterize water that flows along a shallow swale to South Mugu Road and to a storm sewer that ultimately discharges to drainage ditch No. 6 indicating this sampling location was established to characterize discharges to the lagoon and not the lagoon itself.

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
2	Navy	SW11-19	Receiving Water	2/3/94	<	5.6	No	These sampling locations are located in Reach 2 (Lower Calleguas Creek) which is considered a separate waterbody in the listing process.
2	Navy	SW11-21	Receiving Water	2/1/94	=	9.8	No	
2	CCCS	CCCS: 7	Receiving Water	8/5/98	=	5.6	No	
2	CCCS	CCCS: 7	Receiving Water	11/5/98	=	4	No	
2	CCCS	CCCS: 7	Receiving Water	2/3/99	=	6.5	No	
2	Navy	SW11-59	Receiving Water	2/3/99	=	6.9	No	
2	CCCS	CCCS: 7	Receiving Water	5/5/99	=	4.6	No	
2	Navy	CC-SS-1	Receiving Water	6/10/03	=	8.1	No	
2	Navy	CC-SS-1	Receiving Water	2/3/04	=	15.2	No	
2	Navy	CC-SS-1	Receiving Water	2/26/04	=	9	No	
4	Navy	SW11-18	Receiving Water	2/3/94	<	5.6	No	These sampling locations are located in Reach 4 (Revolon Slough) which is considered a separate waterbody in the listing process.
4	Navy	SW11-18	Receiving Water	2/3/94	<	5.6	No	
4	Navy	SW11-20	Receiving Water	2/1/94	<	6.8	No	
4	Navy	SW11-20	Receiving Water	2/1/94	<	6.8	No	
4	Navy	SW11-58	Receiving Water	2/3/99	=	6.7	No	
4	Navy	SW11-58	Receiving Water	2/3/99	=	6.7	No	
4	Navy	RS-SS-1	Receiving Water	6/10/03	=	9.1	No	
4	Navy	RS-SS-1	Receiving Water	6/10/03	=	9.1	No	
4	Navy	RS-SS-1	Receiving Water	2/3/04	=	9.7	No	
4	Navy	RS-SS-1	Receiving Water	2/3/04	=	9.7	No	
4	Navy	RS-SS-1	Receiving Water	2/26/04	=	7.9	No	
4	Navy	RS-SS-1	Receiving Water	2/26/04	=	7.9	No	
ODD2	Navy	SW11-16	Drainage Ditch	1/30/94	<	7.4	No	These sampling locations are located in Duck Pond Agricultural Drain/Mugu Drain/Oxnard Drain No 2 which is considered a separate waterbody in the listing process.
ODD2	Navy	SW11-17	Drainage Ditch	1/31/94	=	10.6	No	
ODD2	Navy	SW11-74	Drainage Ditch	2/3/99	=	6.6	No	
ODD2	Navy	SW11-75	Drainage Ditch	2/3/99	=	7.1	No	

Reach	Monitoring Type	Project SiteID	Sample Source	Sample Date	Sign	Result (ug/L)	Used in Analysis	Reason for Exclusion
ODD3	Navy	SW11-11	Drainage Ditch	1/30/94	<	6.8	No	These sampling locations are located in Rio De Santa Clara/Oxnard Drain No. 3 which is considered a separate waterbody in the listing process.
ODD3	Navy	SW11-12	Drainage Ditch	2/2/94	<	5	No	
ODD3	Navy	SW11-13	Drainage Ditch	2/3/94	<	5.6	No	
ODD3	Navy	SW11-14	Drainage Ditch	2/3/94	<	5.6	No	
ODD3	Navy	SW11-36	Drainage Ditch	2/4/94	=	6.7	No	
ODD3	Navy	SW11-70	Drainage Ditch	2/3/99	<	5	No	
ODD3	Navy	SW11-71	Drainage Ditch	2/3/99	<	3.9	No	
ODD3	Navy	SW11-73	Drainage Ditch	2/3/99	<	3.6	No	
ODD3	Navy	SW11-72	Drainage Ditch	2/3/99	=	8.7	No	

From: "Chris Minton" <ChrisM@LWA.com>
To: <commentletters@waterboards.ca.gov>, <cjwilson@waterboards.ca.gov>
Date: Tue, Jan 31, 2006 10:46 AM
Subject: Supplementary Comments on Calleguas Creek Watershed 303(d) Listings for Zinc and Nickel

Attached are supplementary comments to a letter signed by Calleguas Creek Watershed Management Plan Chair Judy Mikels on January 18, 2006. The attached PDF file provides supplementary information for comments provided in the original letter on zinc and nickel listed in Reach 1 of the Calleguas Creek watershed.

A signed hard copy will be sent overnight to your office. Please contact me if you have any problems with the attachment or questions about the comments. Thank you for your time.

Sincerely,

Chris Minton

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