

## 2003 Water Quality Data for Lopez Project

Tables 1,2,3,4, 5, and 6 list all of the drinking water contaminants that were detected from **January 2003 through December 2003**, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The DHS requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data may be more than one year old, but is still representative of the water quality. Water quality data for State water was provided by the Central Coast Water Authority.

Table 1 - Treatment of surface water sources		
Turbidity Performance Standard - Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity of combined filter effluent water must: 1. Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2. Not exceed 1.0 NTU for more than eight consecutive hours. 3. Not exceed 5 NTU at any time.	Treatment Technique for Lopez Project Conventional Treatment	Treatment Technique for Central Coast Water Authority (State Water) Conventional Treatment
Lowest monthly percentage of samples that met Turbidity Performance Standard 1.	98.9%	98.8%
Highest single turbidity measurement during the year.	0.54	0.46
The number of violations of any surface water treatment requirement.	0	0

Table 2 - Microbiological Contaminants			Delivered Water		Lopez WTP		CCWA PPWTP		Potential Source of Contamination
Contaminant (reporting units)	MCL	PHG (MCLG)	Range	Average	Range	Average	Range	Average	
Total Coliform Bacteria (Distribution)	5.0% of monthly samples	(0)	ND -2.0%	0.47%	ND -2.0%	0.47%		ND	Naturally present in the environment
Heterotrophic plate count (CFU/mL) (Distribution)	TT	(0)	ND - 390	9	ND - 390	9	<1 - 1	<1	Naturally present in the environment.

Table 3 - Detection of Contaminants with a Primary Drinking Water Standard									
Aluminum (ppb)	1000	600		80	ND - 140	28	ND - 90	50	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	50	-----		3.0	3.3 - 4	4		NR	Runoff from orchards; natural deposits
Fluoride (ppb)	2000	1000		360	350 - 450	410		ND	Erosion of natural deposits
Nitrate (as NO <sub>3</sub> ) (ppm)	45	45	ND - 2.7	0.68	ND - 0.84	ND		3.21	Runoff and leaching from fertilizer use; sewage; natural erosion
Nitrite and Nitrate (as N) (ppb)	10	10	ND - 610	150		ND		720	Runoff and leaching from fertilizer use; sewage; natural erosion
Gross Alpha Particle Activity (pCi/L)	15	-----	NA	NA		1.24 (2000)		ND	Erosion of natural deposits

Table 4 - Detection of Contaminants with a Secondary Drinking Water Standard									
Aluminum (ppb)	200	-----		80	ND - 140	28	ND - 90	50	Residue from some surface water treatment processes
Chloride (ppm)	500	-----	33 - 60	44	23 - 27	25	47 - 111	75	Runoff/leaching from natural deposits

Table 4 - Detection of Contaminants with a Secondary Drinking Water Standard (Continued)			Delivered Water		Lopez WTP		CCWA PPWTP		Potential Source of Contamination
Contaminant (reporting units)	MCL	PHG (MCLG) or [MRDLG]	Range	Average	Range	Average	Range	Average	
Color (CU)	15	-----	1 - 2	1		1	0 - 5	2	Naturally occurring organic materials
Corrosivity (LI)	Noncorrosive	-----	0.0 - 0.8	0.3 Noncorrosive	0.1 - 1.0	0.6 Noncorrosive		Noncorrosive	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Odor - Threshold (TON)	3	-----	1.0 - 1.4	1.2	1 - 2	1.3		(d)	Naturally occurring organic materials
Specific Conductance (micromhos/cm)	1600	-----	580 - 660	620	630 - 730	690		516	Runoff/leaching from natural deposits
Sulfate (ppm)	500	-----	74 - 89	82	97 - 120	110		49	Runoff/leaching from natural deposits
Turbidity (NTU)	5	-----	0.06 - 3.0 (b)	0.12	0.06 - 0.19	0.12	0.04 - 0.08	0.06	Soil Runoff
Total Dissolved Solids (ppm)	1000	-----	380 - 490	430	450 - 520	470		280	Runoff/leaching from natural deposits

**Table 5 - Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors**

Total Trihalomethanes (ppb)	RAA = 80	-----	45.2 - 71.6 (a)	57.2		63.7	37.0 - 59.9 (a)	46.6	Byproduct of drinking water chlorination.
Haloacetic Acids (ppb)	RAA = 60	-----	8.1 - 41.1 (a)	26.0	18.3 - 43.4	28.8	6.4 - 26.0 (a)	12.7	Byproduct of drinking water disinfection.
Total Chlorine Residual (ppm)	MRDL = 4.0 as Cl <sub>2</sub>	[4]	1.15 - 2.18 (a)	1.66	0.97 - 2.01	1.53	1.2 - 2.4 (a)	2.0	Drinking water disinfectant added for treatment.
Free Chlorine Residual (ppm)	MRDL = 4.0 as Cl <sub>2</sub>	[4]	0.67 - 2.86 (a)	1.79	0.11 - 3.34	2.18		NR	Drinking water disinfectant added for treatment.
Chlorite (ppb)	1000	(800)	ND - 1300 *(b)	450		NA		NA	Byproduct of drinking water disinfection.
Chlorate (ppb)	AL = 800	-----	ND - 520 (b)	170		NA		NA	Byproduct of drinking water disinfection.
Chlorine Dioxide (ppb)	800 as ClO <sub>2</sub>	[800]	ND - 220 (b)	70		NA		NA	Drinking water disinfectant added for treatment.
Total Organic Carbon (ppm) (c)	TT	-----		NA	3.9 - 5.1	4.7	1.5 - 3.7	2.2	Various natural and manmade sources.

**Table 6 - Detection of Contaminants without a Drinking Water Standard**

Alkalinity as CaCO <sub>3</sub> (ppm)	-----	-----	190 - 270	210	260 - 300	270	67 - 81	74	Runoff/leaching from natural deposits; seawater influence
Boron (ppb)	-----	AL = 1000		ND		ND		98 (2002)	
Calcium (ppm)	-----	-----	52 - 61	56	72 - 81	76	41 - 63	53	Runoff/leaching from natural deposits; seawater influence
Hardness as CaCO <sub>3</sub> (ppm)	-----	-----	230 - 330	270	320 - 370	350	80 - 131	103	Generally found in ground and surface water
Magnesium (ppm)	-----	-----	25 - 33	30	34 - 44	38		15	Runoff/leaching from natural deposits; seawater influence
pH	-----	-----	7.6 - 8.0	7.8	7.63 - 8.17	8.0	8.2 - 8.4	8.3	Runoff/leaching from natural deposits; seawater influence
Potassium (ppm)	-----	-----		NA		NA		3.0	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	-----	-----	30 - 48	38	23 - 25	24		46	Runoff/leaching from natural deposits; seawater influence
Vanadium (ppb)	-----	AL - 50		NA	3.8-6.2 (2002)	4.9		0.37 (2002)	Runoff/leaching from natural deposits

\* On December 2, 2003, chlorite in excess of 1.0 mg/L entered the distribution system. Followup samples were collected as required. The average chlorite level in the distribution system was 0.91 mg/L, which did not exceed the maximum contaminant level.