2005 Water Quality Data for Lopez Project

Tables 1,2,3,4, 5, 6, and 7 list all of the drinking water contaminants that were detected from January 2005 through December 2005, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, although representative, may be more than one year old. Water quality data for State water was provided by the Central Coast Water Authority.

CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

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.	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.	99.4%	100%
Highest single turbidity measurement during the year.	0.38	0.12
The number of violations of any surface water treatment requirement.	0	0

			Delivered Water		Lopez WTP		CCWA PPWTP		
Contaminant (reporting units)	**MCL**	**PHG (MCLG)**	**Range**	**Average**	**Range**	**Average**	**Range**	**Average**	**Potential Source of Contamination**
Table 2 - Microbiological Contaminants									
Total Coliform Bacteria (MPN/100 mL)	More than 5.0% of monthly samples are positive	(0)		ND		ND		ND	Naturally present in the environment
Turbidity (NTU)	TT	TT	0.08 - 0.28	0.13	0.08—0.28	0.14	0.03—0.12	0.06	Surface water runoff
Heterotrophic plate count (CFU/mL)	TT = adequate disinfection (HPC < 500 CFU/mL)	(0)	<1 - 15	<1	<1—4	<1	<1—2	1	Naturally present in the environment.
Table 3—Inorganic Contaminants									
Aluminum (ppb)	1000	600	39—81	66	ND—250	70	50—260	110	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	50	0.004		ND	4—4.4	4		ND	Runoff from orchards; natural deposits
Fluoride (ppb)	2000	1000	210	210	310—460	370		100	Erosion of natural deposits
Nitrate as NO_3 (ppm)	45	45	0.66—3.9	1.8	ND—7.5	0.83	1.8—7.6	4.4	Runoff and leaching from fertilizer use; sewage; natural erosion
Nitrite and Nitrate as N (ppb)	10,000	10,000	ND—880	320	ND—1700	190		510	Runoff and leaching from fertilizer use; sewage; natural erosion
Table 4—Radioactive Contaminants									
Gross Alpha Particle Activity (pCi/L)	15	(0)		NA	ND - 1.93 ± 0.98	0.8 ± 0.98		NC	Erosion of natural deposits

			Delivered Water		Lopez WTP		CCWA PPWTP		
Contaminant (reporting units)	**MCL**	**PHG (MCLG) or [MRDLG]**	**Range**	**Average**	**Range**	**Average**	**Range**	**Average**	**Potential Source of Contamination**
Table 5 – Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors - FEDERAL RULE									
Total Trihalomethanes (ppb)	RAA = 80	-----	51—80 (a)	63.6 (c)	51—80 (a)	63.6 (c)	37—72 (a)	53 (c)	By-product of drinking water chlorination.
Haloacetic Acids (ppb)	RAA = 60	-----	28 13—37 (a)	28 22.4 (c)	25—31	28	8.5—24 (a)	15 (c)	By-product of drinking water disinfection.
Total Chlorine Residual (ppm)	MRDL = 4.0 as Cl_2	[4]	1.09 - 2.72 0.20—2.20 (a)	1.73 1.62 (c)	1.27—2.93	1.69	2.0—3.1 (a)	2.5(c)	Drinking water disinfectant added for treatment.
Free Chlorine Residual (ppm)	MRDL = 4.0 as Cl_2	[4]	1.46—3.8 0.17—3.64(a)	2.62 1.75(c)	1.39—3.54	2.65		NC	Drinking water disinfectant added for treatment.
Chlorite (ppb)	1000	(800)	ND - 750 200—630 (a)	410 390(a)		NA		NA	Byproduct of drinking water disinfection.
Chlorate (ppb)	AL = 800	-----	ND - 430 <100—300 (a)	150 150 (a)		NA		NA	Byproduct of drinking water disinfection.
Chlorine Dioxide (ppb)	800 as ClO_2	[800]	ND - 370 ND—110 (a)	30 60 (a)		NA		NA	Drinking water disinfectant added for treatment.
Total Organic Carbon (ppm)	TT	-----		NA	1.7—5.2	4.6(d)	1.4—4.5	2.4	
Table 6 – Detection of Contaminants with a Secondary Drinking Water Standard									
Aluminum (ppb)	200	-----	39—81	66	ND—250	70	50—260	110	Residue from some surface water treatment processes
Chloride (ppm)	500	-----	25—49	37	22—27	24	21—125	65	Runoff/leaching from natural deposits
Color (CU)	15	-----	1 - 3	2	2	2		ND	Naturally occurring organic materials
Corrosivity (LI)	Noncorrosive	-----	0.2—0.6	0.4 Noncorrosive	0.2—0.8	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	-----	1.2—2	1.4	1.2—2.5	1.7	1—3	1 (e)	Naturally occurring organic materials
Specific Conductance (micromhos/cm)	1600	-----	570—720	630	680—770	710	268—730	467	Runoff/leaching from natural deposits
Sulfate (ppm)	500	-----	73—110	88	100—110	100		58	Runoff/leaching from natural deposits
Turbidity (NTU)	5	-----	0.08—0.28	0.13	0.08—0.28	0.14	0.03—0.12	0.06	Soil Runoff
Total Dissolved Solids (ppm)	1000	-----	390 - 460	420	460—550	490	131—358	239	Runoff/leaching from natural deposits
Table 7 – Detection of Contaminants without a Drinking Water Standard									
Alkalinity as $CaCO_3$ (ppm)	-----	-----	160—290	200	250—300	270	42—76	63	Runoff/leaching from natural deposits; seawater influence
Boron (ppb)	-----	AL = 1000		NA		ND (2002)		98 (2002)	Runoff/leaching from natural deposits
Calcium (ppm)	-----	-----	45—78	56	72—81	77	28—74	50	Runoff/leaching from natural deposits; seawater influence
Hardness as $CaCO_3$ (ppm)	-----	-----	200—350	250	320—370	340	50—140	98	Generally found in ground and surface water
Magnesium (ppm)	-----	-----	21—35	28	33—40	37		12	Runoff/leaching from natural deposits; seawater influence
pH	-----	-----	7.5—8.03	7.87	7.54—8.14	7.84	6.7—9.0	8.1	Runoff/leaching from natural deposits; seawater influence
Potassium (ppm)	-----	-----		NA		NA		2.9	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	-----	-----	24 - 44	35	23—27	24		53	Runoff/leaching from natural deposits; seawater influence
Vanadium (ppb)	-----	AL = 50		NA	3.8—6.2	4.9 (2002)		3.7 (2002)	Runoff/leaching from natural deposits