Table 1 - J Street Lagoon
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Hueneme / Bubbling Springs Drain	J Street Drain (mouth)	J Street Drain (upstream of pump)	East Hueneme Drain (Perkins Footbridge)	Oxnard Industrial Drain mouth	California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
							Human Health*	Salt Water Aquatic Life Protection			Human Health*	Marine Aquatic Life Protection				
								Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum		6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
General Constituents																
Temperature	°C	25	24.5	24	24.5	25									(A)	**26.67(A)**
Salinity	ppt	4	4	4	4	4										
Total dissolved solids (TDS)	mg/L	4,430	4,410	4,380	4,420	4,430										
Specific conductance (EC)	mmho	6.53	6.44	6.58	6.13	6.59										
Nitrate-N	mg/L	2.13	2.3	2.15	2.26	1.94										
Ammonium-N (Ammonia)	mg/L	0.28	0.18	0.12	0.05	0.01						0.6 (89)			2.4 (89)	6.0 (89)
Phosphate phosphorus	mg/L	0.03	0.02	0.01	0.02	<0.01										
pH		7.65	7.63	7.62	7.72	7.64										6 to 9 units (30,117)
BOD	mg/L	10	14	NA	13	18										
Oil and Grease	mg/L	ND	ND	NA	ND	ND							25 (117)	40 (117)		75 (117)
Pesticides																
Chlorinated Pesticides	--	ND	ND	NA	ND	ND										

Data Source: VCFCD 1996
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* 30-day average for aquatic organism consumption only
NA Not analyzed
ND Not detected
(A) Water shall not be raised by than 5°F above natural temperature for fresh water. See RWQCB 1994 "Water Quality Control Plan Los Angeles Region" and SWRCB 1972 "Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries in California"
(30) This limit has a range of values between the first and second numbers shown
(89) Expressed as nitrogen.
(117) Effluent limitation for wastes discharged to waters

Items in parentheses are footnotes

Table 2 - J Street Lagoon
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Hueneme / Bubbling Springs Drain	J Street Drain (mouth)	J Street Drain (upstream of pump)	East Hueneme Drain (Perkins Footbridge)	Oxnard Industrial Drain mouth	U.S. EPA National Recommended Ambient Water Quality Criteria																	
							For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
							Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
										CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
General Constituents																								
Temperature	°C	25	24.5	24	24.5	25				(141)							(141)						
Salinity	ppt	4	4	4	4	4				± 2 ppt for natural salinity between 3.5 to 13.5 (141)							± 4 ppt for natural salinity between 13.5 to 35 (141)						
Total dissolved solids (TDS)	mg/L	4,430	4,410	4,380	4,420	4,430			250 (51,133)														
Specific conductance (EC)	mmho	6.53	6.44	6.58	6.13	6.59																	
Nitrate	mg/L	2.13	2.3	2.15	2.26	1.94																	
Ammonium-N (Ammonia)	mg/L	0.28	0.18	0.12	0.05	0.01				(112)		(112)					(112)		(112)				
Phosphate phosphorus	mg/L	0.03	0.02	0.01	0.02	<0.01				(141)							(141)						
pH		7.65	7.63	7.62	7.72	7.64			5 to 9 units (30,51)				6.5 to 9 units (30,51)							6.5 to 8.5 units (51,132)			
BOD	mg/L	10	14	NA	13	18																	
Oil and Grease	µg/L	ND	ND	NA	ND	ND			(51,128)				(51,129)							(51,129)			
Pesticides																							
Chlorinated Pesticides	µg/L	ND	ND	NA	ND	ND																	

Data Source: VCFCD 1996
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect
NA Not analyzed
ND Not detected
(30) This limit has a range of values between the first and second numbers shown.
(51) This criterion is from a 1976 USEPA reference ("Quality Criteria for Water" [Red Book]) and also appears in the current list of recommended criteria published by USEPA.
(112) Criteria are dependent on site-specific factors (pH, temperature, fish species present) see Figures A-1 and A-2
(128) Virtually free from oil and grease, particularly from the tastes and odors that emanate from petroleum products.
(129) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater and marine species, each having a demonstrated high susceptibility to oils and petrochemicals; surface waters shall be virtually free from floating nonpetroleum oils of vegetable or animal origin, as well as petroleum derived oils.
(132) For open ocean waters where depth is substantially greater than euphotic zone, pH should not be changed > 0.2 units from naturally occurring variation or in any case outside of range 6.5 to 8.5. For shallow highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, change in pH should be avoided but in any case should not exceed limits for freshwater.,i.e., 6.5 to 9.0.
(133) For chlorides and sulfates in domestic water supplies.
(141) See Reference: U.S. EPA, 1986. "Quality Criteria for Water, 1986" EPA440/5-86-001 (Gold Book)

Items in parentheses are footnotes

Table 3 - Oxnard Industrial Drain (OID)
Comparison of Surface Water Quality to California Water Quality Criteria

Constituent	Units	Oxnard Industrial Drain (OID)		California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
					Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		6 Reference VCFCD 96	WS-1 Reference SECOR 04	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hr Avg)	Instantaneous Maximum	Human Health*	6-Month Median	30-Day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
General Constituents													
Temperature	°C	**26.8**	NA									(A)	**26.67(A)**
Salinity	ppt	3	NA										
Total dissolved solids (TDS)	mg/L	3,450	NA										
Specific conductance (EC)	mmho	4.22	NA										
Nitrate	mg/L	5.49	NA										
Ammonium-N (Ammonia)	mg/L	**0.7**	NA						**0.6 (89)**			2.4 (89)	6.0 (89)
Phosphate phosphorus	mg/L	<0.01	NA										
pH		7.82	NA										6 to 9 units (30,117)
Volatile Organic Compounds (VOCs)													
Acetone	µg/L	NA	4.0 J										
Benzene	µg/L	NA	ND	71 # (113)				5.9 #					
Dichloromethane	µg/L	NA	ND	1,600 #(113)				450 #					
Metals													
Antimony	µg/L	NA	ND	4,300 (2)				1,200					
Arsenic	µg/L	NA	1.4 J		36 (1,142)	69 (1,142)			8			32	80
Barium	µg/L	NA	42 J										
Beryllium	µg/L	NA	ND					0.033 #					
Cadmium	µg/L	NA	ND		9.3 (1,142)	42 (1,142)			1			4	10
Chromium (total)	µg/L	NA	ND						2 (12)			8 (12)	20 (12)
Cobalt	µg/L	NA	ND										
Copper	µg/L	NA	ND		3.1 (1,142)	4.8 (1,142)			3			12	30
Lead	µg/L	NA	ND		8.1 (1,142)	210 (1,142)			2			8	20
Mercury (total)	µg/L	NA	ND	0.051 (2,142)					0.04			0.16	0.4
Molybdenum	µg/L	NA	ND										
Nickel	µg/L	NA	ND	4,600 (2,142)	8.2 (1,142)	74 (1,142)			5			20	50
Selenium	µg/L	NA	14 J		71 (1,142)	290 (1,142)			15			60	150
Silver	µg/L	NA	ND			1.9 (1,142)			0.7			2.8	7
Thallium	µg/L	NA	ND	6.3 (2,143)				2					
Vanadium	µg/L	NA	ND										
Zinc	µg/L	NA	**48 J**		81 (1,142)	90 (1,142)			**20**			80	200
Pesticides													
alpha-Chlordane	µg/L	NA	ND	0.00059 # (113)	0.004 (114)		0.09	0.000023 # (81)					
gamma-Chlordane	µg/L	NA	ND										
DDD	µg/L	NA	ND	0.00084 #(113)				0.00017 # (50)					
DDE	µg/L	NA	ND	0.00059 # (113)				0.00017 # (50)					
DDT	µg/L	NA	ND	0.00059 # (113)	0.001 (114)		0.13	0.00017 # (50)					
Toxaphene	µg/L	NA	ND	0.00075 # (113)	0.0002	0.21		0.00021 #					
Endosulfan	µg/L	NA	ND	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
alpha-BHC	µg/L	NA	ND	0.013 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
beta-BHC	µg/L	NA	ND	0.046 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
gamma-BHC (Lindane)	µg/L	NA	ND	0.063 # (113)			0.16		0.004 (43)			0.008 (43)	0.012 (43)
Dieldrin	µg/L	NA	ND	0.00014 #(113)	0.0019 (114)		0.71	0.00004 #					
Polychlorinated biphenyls (PCBs)													
PCB-1016	µg/L	NA	ND	0.00017 # (113)	0.03 (114,116)			0.000019 # (118)					
PCB-1221	µg/L	NA	ND										
PCB-1232	µg/L	NA	ND										
PCB-1242	µg/L	NA	ND										
PCB-1248	µg/L	NA	ND										
PCB-1254	µg/L	NA	ND										
PCB-1260	µg/L	NA	ND										

Items in parentheses are footnotes

Table 3 - Oxnard Industrial Drain (OID)
Comparison of Surface Water Quality to California Water Quality Criteria

Constituent	Units	Oxnard Industrial Drain (OID)		California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
					Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		6 Reference VCFCD 96	WS-1 Reference SECOR 04	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hr Avg)	Instantaneous Maximum	Human Health*	6-Month Median	30-Day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
Radionuclides													
K40 (gs)	pCi/L	NA	U										
Mn54 (gs)	pCi/L	NA	U										
Co58 (gs)	pCi/L	NA	U										
Co60 (gs)	pCi/L	NA	U										
Cs137 (gs)	pCi/L	NA	U										
Ra226 (gs)	pCi/L	NA	U										
Th228 (gs)	pCi/L	NA	U										
Th232 (gs)	pCi/L	NA	0										
Th232	pCi/L	NA	0										
Th230	pCi/L	NA	0										
Th228	pCi/L	NA	0.009										
U238	pCi/L	NA	4.15										
U235	pCi/L	NA	0.17										
U233/234	pCi/L	NA	5.05										

Data Source: VCFCD 1996 and SECOR 2004
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

- * 30-day average for aquatic organism consumption only
- # Carcinogen
- J Estimated value; detected at a level less than the MRL and greater than or equal to the Method Dectection Limit (MDL)
- NA Not analyzed for constituent
- ND Not detected at or above the Method Report Limit (MRL)
- U Not detected greater than Minimum Detectable Activity (MDA)
- (gs) gamma spectroscopy
- (A) Water shall not be raised by than 5°F above natural temperature for fresh water. See RWQCB 1994 "Water Quality Control Plan Los Angeles Region" and SWRCB 1972 "Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries in California"
- (1) Expressed as dissolved.
- (2) Expressed as total recoverable.
- (12) Value developed for chromium (VI); may be applied to total chromium if valence unknown.
- (30) This limit has a range of values between the first and second numbers shown.
- (42) For endosulfan-alpha, endosulfan-beta and endosulfan sulfate.
- (43) For benzene hexachloride isomers.
- (50) For DDT, DDD, and DDE, in combination.
- (81) For oxychlordane and alpha and gamma isomers of chlordane, chlordene and nonachlor.
- (113) Based on carcinogenicity at 1-in-a-million risk level.
- (114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule See Reference "National Toxics Rule" published in Federal Register, Volume 57, No. 246 pp. 60848-60923.
- (115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
- (116) Applies separately to Aroclors 1016, 1242, 1254, 1221, 1232, 1248, and 1260; based on carcinogenicity at 1-in-a-million risk level.
- (117) Effluent limitation for wastes discharged to waters.
- (118) For the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.
- (142) Criteria do not apply to waters subject to water quality objectives in Tables III-2A and III-2B of the San Francisco Bay Regional Water Quality Control Board's 1986 Basin Plan. See Reference "California Toxic Rule" published in Federal Register, Volume 65, No, 97 pp. 31682-31719 and Volume66, No. 30 pp. 9960-9962.
- (143) These criteria were promulgated for specific California waters in the National Toxics Rule, see Reference "National Toxics Rule Revision" published in Federal Register, Volume 60, No. 86, pp. 22228-22237.

Table 4 - Oxnard Industrial Drain (OID)
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Oxnard Industrial Drain (OID)		U.S. EPA National Recommended Ambient Water Quality Criteria															
				For Human Health and Welfare			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection					
							Recommended Criteria				Toxicity Information			Recommended Criteria				Toxicity Information		
		6 Reference VCFCD 96	WS-1 Reference SECOR 04	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
General Constituents																				
Temperature	°C	26.8	NA				(141)							(141)						
Salinity	ppt	3	NA				± 2 ppt for natural salinity between 3.5 to 13.5 (141)							± 4 ppt for natural salinity between 13.5 to 35 (141)						
Total dissolved solids (TDS)	mg/L	3,450	NA			250 (51,133)														
Specific conductance (EC)	mmho	4.22	NA																	
Nitrate	mg/L	5.49	NA																	
Ammonium-N (Ammonia)	mg/L	0.7	NA				(112)		(112)					(112)		(112)				
Phosphate phosphorus	mg/L	<0.01	NA				(141)							(141)						
pH		7.82	NA			5 to 9 units				6.5 to 9 units (30,51)							6.5 to 8.5 units (51,132)			
Volatile Organic Compounds (VOCs)																				
Acetone	µg/L	NA	4.0 J																	
Benzene	µg/L	NA	ND		51 #						5,300							5,100		700 (83)
Dichloromethane	µg/L	NA	ND		590 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
Metals																				
Antimony	µg/L	NA	ND	640 (2)							9,000	1,600	610 (38)							
Arsenic	µg/L	NA	**1.4 J**		**0.14 # (2,94)**		150 (1)		340 (1)					36 (1)		69 (1)				
Barium	µg/L	NA	42 J																	
Beryllium	µg/L	NA	ND								130	5.3								
Cadmium	µg/L	NA	ND				see Figure A-3							8.8 (1)	40 (1)					
Chromium (total)	µg/L	NA	ND																	
Cobalt	µg/L	NA	ND																	
Copper	µg/L	NA	ND			1,000	see Figure A-4		see Figure A-4					3.1 (1)		4.8 (1)				
Lead	µg/L	NA	ND				see Figure A-5		see Figure A-5					8.1 (1)		210 (1)				
Mercury (total)	µg/L	NA	ND				0.77 (1,140)		1.4 (1,140)					0.94 (1,140)		1.8 (1,140)				
Molybdenum	µg/L	NA	ND																	
Nickel	µg/L	NA	ND	4,600 (2)			see Figure A-6		see Figure A-6					8.2 (1)		74 (1)				
Selenium	µg/L	NA	**14 J**	4,200 (2)			**5 (135)**		(135,136)					71 (1)		290 (1)				
Silver	µg/L	NA	ND							see Figure A-8 (1,154)							1.9 (1,154)			
Thallium	µg/L	NA	ND	0.47 (2)							1,400	40	20 (16)					2,130		
Vanadium	µg/L	NA	ND																	
Zinc	µg/L	NA	48 J	26,000 (2)		5,000	120 see Figure A-9 (1)		120 see Figure A-9 (1)					81 (1)		90 (1)				
Pesticides																				
alpha-Chlordane	µg/L	NA	ND		0.00081 #		0.0043 (114)			2.4 (154)				0.004 (114)			0.09 (154)			
gamma-Chlordane	µg/L	NA	ND																	
DDD	µg/L	NA	ND		0.00031 #						0.6							3.6		
DDE	µg/L	NA	ND		0.00022 #						1,050							14		
DDT	µg/L	NA	ND		0.00022 #		0.001 (114,172)			1.1 (154,172)				0.001 (114,172)			0.13 (154,172)			
Toxaphene	µg/L	NA	ND		0.00028 #		0.0002		0.73					0.0002		0.21				
Endosulfan	µg/L	NA	ND	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
alpha-BHC	µg/L	NA	ND		0.0049 #															
beta-BHC	µg/L	NA	ND		0.017 #															
gamma-BHC (Lindane)	µg/L	NA	ND	1.8			0.08 (114)		0.95								0.16 (154)			
Dieldrin	µg/L	NA	ND		0.000054 #		0.056 (139)		0.24					0.0019 (114)			0.71 (154)			
Polychlorinated biphenyls (PCBs)																				
PCB-1016	µg/L	NA	ND																	
PCB-1221	µg/L	NA	ND																	
PCB-1232	µg/L	NA	ND		0.000064 # (173)		0.014 (114,173)				2			0.03 (114,173)				10		
PCB-1242	µg/L	NA	ND																	
PCB-1248	µg/L	NA	ND																	
PCB-1254	µg/L	NA	ND																	
PCB-1260	µg/L	NA	ND																	

Items in parentheses are footnotes

Table 4 - Oxnard Industrial Drain (OID)
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Oxnard Industrial Drain (OID)		U.S. EPA National Recommended Ambient Water Quality Criteria																
				For Human Health and Welfare			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
							Recommended Criteria				Toxicity Information			Recommended Criteria				Toxicity Information		
		6 Reference VCFCD 96	WS-1 Reference SECOR 04	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Radionuclides																				
K40 (gs)	pCi/L	NA	U																	
Mn54 (gs)	pCi/L	NA	U																	
Co58 (gs)	pCi/L	NA	U																	
Co60 (gs)	pCi/L	NA	U																	
Cs137 (gs)	pCi/L	NA	U																	
Ra226 (gs)	pCi/L	NA	U																	
Th228 (gs)	pCi/L	NA	U																	
Th232 (gs)	pCi/L	NA	0																	
Th232	pCi/L	NA	0																	
Th230	pCi/L	NA	0																	
Th228	pCi/L	NA	0.009																	
U238	pCi/L	NA	4.15																	
U235	pCi/L	NA	0.17																	
U233/234	pCi/L	NA	5.05																	

Data Source: VCFCD 1996 and SECOR 2004
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
\# Carcinogen
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect
J Estimated value; detected at a level less than the MRL and greater than or equal to the Method Dectection Limit (MDL)
NA Not analyzed for constituent
ND Not detected at or above the Method Report Limit (MRL)
U Not detected greater than Minimum Detectable Activity (MDA)
(gs) gamma spectroscopy
(1) Expressed as dissolved.
(2) Expressed as total recoverable.
(16) Toxicity to one species of fish after 2600 hours of exposure.
(20) For halomethanes.
(30) This limit has a range of values between the first and second numbers shown.
(38) Toxicity to algae occurs.
(51) This criterion is from a 1976 USEPA reference ("Quality Criteria for Water" [Red Book]) and also appears in the current list of recommended criteria published by USEPA.
(82) A decrease in the number of algal cells occurs.
(83) Adverse effects on a fish species exposed for 168 days.
(94) Criterion refers to the inorganic form only.
(112) Criteria are dependent on site-specific factors (pH, temperature, fish species present) see Figures A-1 and A-2
(114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule published in Federal Register Vol. 57 No. 246 pp. 22228-22237
(115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(128) Virtually free from oil and grease, particularly from the tastes and odors that emanate from petroleum products.
(129) 0.01 of the lowest continuous flow 96-hour LC50 to several important freshwater and marine species, each having a demonstrated high susceptibility to oils and petrochemicals; surface waters shall be virtually free from floating nonpetroleum oils of vegetable or animal origin, as well as petroleum derived oils.
(132) For open ocean waters where depth is substantially greater than euphotic zone, pH should not be changed > 0.2 units from naturally occurring variation or in any case outside of range 6.5 to 8.5. For shallow highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, change in pH should be avoided but in any case should not exceed limits for freshwater.,i.e., 6.5 to 9.0.
(133) For chlorides and sulfates in domestic water supplies.
(135) Expressed as total recoverable; may be converted to a value expressed as dissolved by multiplying the maximum criterion by 0.996 and the continuous criterion by 0.922.
(136) The Maximum Concentration is equal to 1/ [(f1/185.9) + (f2/12.83)], where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively.
(139) The derivation of this criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
(140) Criterion derived from data for inorganic mercury (II), but is applied to total mercury. It will probably be underprotective if a substantial portion of mercury in the water column is methylmercury. Derivation of criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(141) See Reference: U.S. EPA, 1986. "Quality Criteria for Water, 1986" EPA440/5-86-001 (Gold Book)
(154) If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a Criteria Maximum Concentration (1-hour average). See Reference "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
(172) Applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).
(173) Applies to total PCBs (e.g., sum of all congener or all isomer or homolog or Aroclor analyses).

Table 5 - MWD Property
Comparison of Surface Water Quality to California Water Quality Criteria

Constituent	Units	MWD Property		California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Salt Marsh	Ponded Water		Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		WS-8	WS-9	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hr Avg)	Instantaneous Maximum	Human Health*	6-Month Median	30-Day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
Volatile Organic Compounds (VOCs)													
Acetone	µg/L	9.2 J	5.3 J										
Benzene	µg/L	ND	ND	71 # (113)				5.9 #					
Dichloromethane	µg/L	ND	ND	1,600 # (113)				450 #					
Metals													
Antimony	µg/L	ND	ND	4,300 (2)				1,200					
Arsenic	µg/L	3.9 J	2.3 J		36 (1,142)	69 (1,142)			8			32	80
Barium	µg/L	56 J	44 J										
Beryllium	µg/L	ND	ND					0.033 #					
Cadmium	µg/L	ND	ND		9.3 (1,142)	42 (1,142)			1			4	10
Chromium (total)	µg/L	ND	ND						2 (12)			8 (12)	20 (12)
Cobalt	µg/L	ND	ND										
Copper	µg/L	ND	ND		3.1 (1,142)	4.8 (1,142)			3			12	30
Lead	µg/L	ND	ND		8.1 (1,142)	210 (1,142)			2			8	20
Mercury (total)	µg/L	ND	ND	0.051 (2,142)					0.04			0.16	0.4
Molybdenum	µg/L	ND	ND										
Nickel	µg/L	ND	ND	4,600 (2,142)	8.2 (1,142)	74 (1,142)			5			20	50
Selenium	µg/L	3.6 J	3.9 J		71 (1,142)	290 (1,142)			15			60	150
Silver	µg/L	ND	ND			1.9 (1,142)			0.7			2.8	7
Thallium	µg/L	ND	ND	6.3 (2,143)				2					
Vanadium	µg/L	30	ND										
Zinc	µg/L	**44**	**54**		81 (1,142)	90 (1,142)			**20**			80	200
Pesticides													
alpha-Chlordane	µg/L	ND	ND	0.00059 # (113)	0.004 (114)		0.09	0.000023 # (81)					
gamma-Chlordane	µg/L	ND	ND										
DDD	µg/L	ND	ND	0.00084 # (113)				0.00017 #					
DDE	µg/L	ND	ND	0.00059 # (113)				0.00017 #					
DDT	µg/L	**0.097**	**0.068**	**0.00059 # (113)**	**0.001 (114)**		0.13	**0.00017 #**					
Toxaphene	µg/L	ND	ND	0.00075 # (113)	0.0002	0.21		0.00021 #					
Endosulfan	µg/L	ND	ND	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
alpha-BHC	µg/L	ND	ND	0.013 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
beta-BHC	µg/L	ND	ND	0.046 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
gamma-BHC (Lindane)	µg/L	**0.035 J**	**0.028 J**	0.063 # (113)			0.16		**0.004 (43)**			**0.008 (43)**	**0.012 (43)**
Dieldrin	µg/L	ND	ND	0.00014 # (113)	0.0019 (114)		0.71	0.00004 #					
Polychlorinated biphenyls (PCBs)													
PCB-1016	µg/L	ND	ND	0.00017 # (113)	0.03 (114,116)			0.000019 # (118)					
PCB-1221	µg/L	ND	ND										
PCB-1232	µg/L	ND	ND										
PCB-1242	µg/L	ND	ND										
PCB-1248	µg/L	ND	ND										
PCB-1254	µg/L	ND	ND										
PCB-1260	µg/L	ND	ND										

Data Source: SECOR 2004
Criteria Source: RWQCB 2003

Legend
- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes
- * 30-day average for aquatic organism consumption only
- # Carcinogen
- J Estimated value; detected at a level less than the MRL and greater than or equal to the Method Dectection Limit (MDL)
- NA Not analyzed for constituent
- ND Not detected at or above the Method Report Limit (MRL)
- U Not detected greater than Minimum Detectable Activity (MDA)
- (gs) gamma spectroscopy
- (A) Water shall not be raised by than 5°F above natural temperature for fresh water. See RWQCB 1994 "Water Quality Control Plan Los Angeles Region" and SWRCB 1972 "Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters
- (1) Expressed as dissolved.
- (2) Expressed as total recoverable.
- (12) Value developed for chromium (VI); may be applied to total chromium if valence unknown.
- (42) For endosulfan-alpha, endosulfan-beta and endosulfan sulfate.
- (43) For benzene hexachloride isomers.
- (50) For DDT, DDD, and DDE, in combination.
- (81) For oxychlordane and alpha and gamma isomers of chlordane, chlordene and nonachlor.
- (113) Based on carcinogenicity at 1-in-a-million risk level.
- (114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule See Reference "National Toxics Rule" published in Federal Register, Volume 57, No. 246 pp. 60848-60923.
- (115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
- (116) Applies separately to Aroclors 1016, 1242, 1254, 1221, 1232, 1248, and 1260; based on carcinogenicity at 1-in-a-million risk level.
- (118) For the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.
- (142) Criteria do not apply to waters subject to water quality objectives in Tables III-2A and III-2B of the San Francisco Bay Regional Water Quality Control Board's 1986 Basin Plan. See Reference "California Toxic Rule" published in Federal Register, Volume 65, No, 97 pp. 31682-31719 and Volume66, No. 30 pp. 9960-9962.
- (143) These criteria were promulgated for specific California waters in the National Toxics Rule, see Reference "National Toxics Rule Revision" published in Federal Register, Volume 60, No. 86, pp. 22228-22237.

Table 6 - MWD Property
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	MWD Property		U.S. EPA National Recommended Ambient Water Quality Criteria																
		Salt Marsh	Ponded Water	For Human Health and Welfare			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
							Recommended Criteria				Toxicity Information			Recommended Criteria				Toxicity Information		
		WS-8	WS-9	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Continuous Concentration (4-Day Avg)	24-hr Avg	Maximum Concentration (1-Hr Avg)	Instantaneous Maximum	Acute	Chronic	Other	Continuous Concentration (4-Day Avg)	24-hr Avg	Maximum Concentration (1-Hr Avg)	Instantaneous Maximum	Acute	Chronic	Other
Volatile Organic Compounds (VOCs)																				
Acetone	µg/L	9.2 J	5.3 J																	
Benzene	µg/L	ND	ND		51 #						5,300							5,100		700 (83)
Dichloromethane	µg/L	ND	ND		590 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
Metals																				
Antimony	µg/L	ND	ND	640 (2)							9,000	1,600	610 (38)							
Arsenic	µg/L	**3.9 J**	**2.3 J**		**0.14 # (2,94)**		150 (1)		340 (1)					36 (1)		69 (1)				
Barium	µg/L	56 J	44 J																	
Beryllium	µg/L	ND	ND								130	5.3								
Cadmium	µg/L	ND	ND				see Figure A-3 (1)	see Figure A-3 (1)						8.8 (1)	40 (1)					
Chromium (total)	µg/L	ND	ND																	
Cobalt	µg/L	ND	ND																	
Copper	µg/L	ND	ND			1,000	see Figure A-4 (1)		see Figure A-4 (1)					3.1 (1)		4.8 (1)				
Lead	µg/L	ND	ND				see Figure A-5 (1)		see Figure A-5 (1)					8.1 (1)		210 (1)				
Mercury (total)	µg/L	ND	ND				0.77 (1,140)		1.4 (1,140)					0.94 (1,140)		1.8 (1,140)				
Molybdenum	µg/L	ND	ND																	
Nickel	µg/L	ND	ND	4,600 (2)			see Figure A-6 (1)		see Figure A-6 (1)					8.2 (1)		74 (1)				
Selenium	µg/L	3.6 J	3.9 J	4,200 (2)			5 (135)		(135,136)					71 (1)		290 (1)				
Silver	µg/L	ND	ND							see Figure A-8 (1,154)							1.9 (1,154)			
Thallium	µg/L	ND	ND	0.47 (2)							1,400	40	20 (16)					2,130		
Vanadium	µg/L	30	ND																	
Zinc	µg/L	44	54	26,000 (2)		5,000	see Figure A-9 (1)		see Figure A-9 (1)					81 (1)		90 (1)				
Pesticides																				
alpha-Chlordane	µg/L	ND	ND		0.00081 #		0.0043 (114)			2.4 (154)				0.004 (114)			0.09 (154)			
gamma-Chlordane	µg/L	ND	ND																	
DDD	µg/L	ND	ND		0.00031 #						0.6							3.6		
DDE	µg/L	ND	ND		0.00022 #						1,050							14		
DDT	µg/L	**0.097**	**0.068**		**0.00022 #**		**0.001 (114,172)**			1.1 (154,172)				**0.001 (114,172)**			0.13 (154,172)			
Toxaphene	µg/L	ND	ND		0.00028 #		0.0002		0.73					0.0002		0.21				
Endosulfan	µg/L	ND	ND	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
alpha-BHC	µg/L	ND	ND		0.0049 #															
beta-BHC	µg/L	ND	ND		0.017 #															
gamma-BHC (Lindane)	µg/L	0.035 J	0.028 J	1.8			0.08 (114)		0.95								0.16 (154)			
Dieldrin	µg/L	ND	ND		0.000054 #		0.056 (139)		0.24					0.0019 (114)			0.71 (154)			

Items in parentheses are footnotes

Table 6 - MWD Property
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	MWD Property		U.S. EPA National Recommended Ambient Water Quality Criteria																
		Salt Marsh	Ponded Water	For Human Health and Welfare			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
							Recommended Criteria				Toxicity Information			Recommended Criteria				Toxicity Information		
		WS-8	WS-9	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Continuous Concentration (4-Day Avg)	24-hr Avg	Maximum Concentration (1-Hr Avg)	Instantaneous Maximum	Acute	Chronic	Other	Continuous Concentration (4-Day Avg)	24-hr Avg	Maximum Concentration (1-Hr Avg)	Instantaneous Maximum	Acute	Chronic	Other
Polychlorinated biphenyls (PCBs)																				
PCB-1016	µg/L	ND	ND		0.000064 # (173)		0.014 (114,173)				2			0.03 (114,173)				10		
PCB-1221	µg/L	ND	ND																	
PCB-1232	µg/L	ND	ND																	
PCB-1242	µg/L	ND	ND																	
PCB-1248	µg/L	ND	ND																	
PCB-1254	µg/L	ND	ND																	
PCB-1260	µg/L	ND	ND																	

Data Source: SECOR 2004
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

- * Aquatic organism consumption only
- # Carcinogen
- J Estimated value; detected at a level less than the MRL and greater than or equal to the Method Dectection Limit (MDL)
- NA Not analyzed for constituent
- ND Not detected at or above the Method Report Limit (MRL)
- U Not detected greater than Minimum Detectable Activity (MDA)
- (gs) gamma spectroscopy
- (1) Expressed as dissolved.
- (2) Expressed as total recoverable.
- (16) Toxicity to one species of fish after 2600 hours of exposure.
- (20) For halomethanes.
- (38) Toxicity to algae occurs.
- (82) A decrease in the number of algal cells occurs.
- (83) Adverse effects on a fish species exposed for 168 days.
- (94) Criterion refers to the inorganic form only.
- (114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule published in Federal Register Vol. 57 No. 246 pp. 22228-22237
- (115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
- (135) Expressed as total recoverable; may be converted to a value expressed as dissolved by multiplying the maximum criterion by 0.996 and the continuous criterion by 0.922.
- (136) The Maximum Concentration is equal to 1/ [(f1/185.9) + (f2/12.83)], where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively.
- (139) The derivation of this criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
- (140) Criterion derived from data for inorganic mercury (II), but is applied to total mercury. It will probably be underprotective if a substantial portion of mercury in the water column is methylmercury. Derivation of criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
- (154) If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a Criteria Maximum Concentration (1-hour average). See Reference "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
- (172) Applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).
- (173) Applies to total PCBs (e.g., sum of all congener or all isomer or homolog or Aroclor analyses).

Table 7 - Salt Marsh Northwest of Ormond Beach Generating Station
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Artersian Well		Pickleweed Marsh	Salt Flat Pond			California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
								Human Health*	Salt Water Aquatic Life Protection			Human Health*	Marine Aquatic Life Protection				
		W4E	W12	W11	W5E	W13	W14		Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum		6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
General Constituents																	
Total dissolved solids (TDS)	mg/L	1,400	NA	NA	10,000	NA	NA										
Specific conductance (EC)	mmho	NA	1.66	1.7	NA	8.08	48.7										
Nitrate-N	mg/L	1.6	NA	NA	ND	NA	NA										
Total Phosphorus	mg/L	0.25	NA	NA	0.08	NA	NA										
pH		**9.7**	8.22	8.35	**10.3**	**9.78**	8.48										**6 to 9 units (30,117)**

Data Source: Jones & Stokes 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* 30-day average for aquatic organism consumption only
NA Not analyzed
ND Not detected
(30) This limit has a range of values between the first and second numbers shown.
(117) Effluent limitation for wastes discharged to waters.

Table 8 - Northwest Edison Property Salt Marsh
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Artersian Well		Pickleweed Marsh	Salt Flat Pond			U.S. EPA National Recommended Ambient Water Quality Criteria																	
								For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
								Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		W4E	W12	W11	W5E	W13	W14				CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
General Constituents																									
Total dissolved solids (TDS)	mg/L	1,400	NA	NA	10,000	NA	NA			250 (51,133)															
Specific conductance (EC)	mmho	NA	1.66	1.7	NA	8.08	48.7																		
Nitrate	mg/L	1.6	NA	NA	ND	NA	NA																		
Phosphate phosphorus	mg/L	0.25	NA	NA	0.08	NA	NA				(141)							(141)							
pH		**9.7**	8.22	8.35	**10.3**	**9.78**	8.48			**5 to 9 units (30,51)**				**6.5 to 9 units (30,51)**							**6.5 to 8.5 units (51,132)**			

Data Source: Jones & Stokes 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effec
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effec
NA Not analyzed
ND Not detected
(30) This limit has a range of values between the first and second numbers shown.
(51) This criterion is from a 1976 USEPA reference ("Quality Criteria for Water" [Red Book]) and also appears in the current list of recommended criteria published by USEPA.
(132) For open ocean waters where depth is substantially greater than euphotic zone, pH should not be changed > 0.2 units from naturally occurring variation or in any case outside of range 6.5 to 8.5. For shallow highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, change in pH should be avoided but in any case should not exceed limits for freshwater.,i.e., 6.5 to 9.0.
(133) For chlorides and sulfates in domestic water supplies.
(141) See Reference: U.S. EPA, 1986. "Quality Criteria for Water, 1986" EPA440/5-86-001 (Gold Book)

Items in parentheses are footnotes

Table 9 - Northwest Edison Property Drainage Channel
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Drainage Channel		California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
					Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		W6E	W15	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum	Human Health*	6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
General Constituents													
Total dissolved solids (TDS)	mg/L	9,400	NA										
Specific conductance (EC)	mmho/cm	NA	14.5										
Nitrate-N	mg/L	ND	NA										
Total Phosphorus	mg/L	2.0	NA										
pH		**9.4**	8.83										**6 to 9 units (30,117)**

Data Source: Jones & Stokes 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* 30-day average for aquatic organism consumption only
NA Not analyzed
ND Not detected
(30) This limit has a range of values between the first and second numbers shown.
(117) Effluent limitation for wastes discharged to waters.

Items in parentheses are footnotes

Table 10 - Northwest Edison Property Drainage Channel
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Drainage Channel		U.S. EPA National Recommended Ambient Water Quality Criteria																
				For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
				Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		W6E	W15				CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
General Constituents																				
Total dissolved solids (TDS)	mg/L	9,400	NA			250 (51,133)														
Specific conductance (EC)	mmho/cm	NA	14.5																	
Nitrate	mg/L	ND	NA																	
Phosphate phosphorus	mg/L	2.0	NA				(141)							(141)						
pH		**9.4**	**8.83**			**5 to 9 units (30,51)**				**6.5 to 9 units (30,51)**							**6.5 to 8.5 units (51,132)**			

Data Source: Jones & Stokes 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect
NA Not analyzed
ND Not detected
(30) This limit has a range of values between the first and second numbers shown.
(51) This criterion is from a 1976 USEPA reference and also appears in the current list of recommended criteria published by USEPA. Reference: "Quality Criteria for Water" (Red Book) U.S. EPA 1976.
(132) For open ocean waters where depth is substantially greater than euphotic zone, pH should not be changed > 0.2 units from naturally occurring variation or in any case outside of range 6.5 to 8.5. For shallow highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, change in pH should be avoided but in any case should not exceed limits for freshwater.,i.e., 6.5 to 9.0.
(133) For chlorides and sulfates in domestic water supplies.
(141) See Reference: U.S. EPA, 1986. "Quality Criteria for Water, 1986" EPA440/5-86-001 (Gold Book)

Items in parentheses are footnotes

Table 11 - Salt Marsh Southeast of Ormond Beach Generating Station
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Salt Flat Pond							Pickleweed Marsh/Salt Flat				Ocean	California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
															Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		W2E	W5	W6	W7	W8	W9	W10	W3E	W2	W3	W4	W16	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum	Human Health*	6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
General Constituents																							
Total dissolved solids (TDS)	mg/L	320,000	NA	NA	NA	NA	NA	NA	370,000	NA	NA	NA	NA										
Specific conductance (EC)	mmho/cm	NA	59.9	111	93.8	93.5	111.2	84.2	NA	80.01	44.1	100.4	49.2										
Nitrate-N	mg/L	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA										
Total Phosphorus	mg/L	0.85	NA	NA	NA	NA	NA	NA	4.4	NA	NA	NA	NA										
pH		7.5	**9.47**	8.48	**9.21**	**9.15**	8.95	**9.1**	7.1	**9.42**	7.51	8.66	8.16										**6 to 9 units (30,117)**

Data Source: Jones & Stokes 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

- * 30-day average for aquatic organism consumption only
- # Carcinogen
- NA Not analyzed
- ND Not detected
- (30) This limit has a range of values between the first and second numbers shown.
- (117) Effluent limitation for wastes discharged to waters.

Items in parentheses are footnotes

Table 12 - Salt Marsh Southeast of Ormond Beach Generating Station
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Salt Flat Pond							Pickleweed Marsh/Salt Flat Pond				Ocean	U.S. EPA National Recommended Ambient Water Quality Criteria																	
														For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
														Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		W2E	W5	W6	W7	W8	W9	W10	W3E	W2	W3	W4	W16				CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
General Constituents																															
Total dissolved solids (TDS)	mg/L	320,000	NA	NA	NA	NA	NA	NA	370,000	NA	NA	NA	NA			250 (51,133)															
Specific conductance (EC)	mmho/cm	NA	59.9	111	93.8	93.5	111.2	84.2	NA	80.01	44.1	100.4	49.2																		
Nitrate	mg/L	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA																		
Total Phosphorus	mg/L	0.85	NA	NA	NA	NA	NA	NA	4.4	NA	NA	NA	NA				(141)							(141)						
pH		7.5	**9.47**	8.48	**9.21**	**9.15**	**8.95**	**9.1**	7.1	**9.42**	7.51	**8.66**	8.16			**5 to 9 units (30,51)**				**6.5 to 9 units (30,51)**							**6.5 to 8.5 units (51,132)**			

Data Source: Jones & Stokes 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
** Only pesticide detected was 4-4 DDT
\# Carcinogen
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect
NA Not analyzed
ND Not detected
(30) This limit has a range of values between the first and second numbers shown.
(51) This criterion is from a 1976 USEPA reference and also appears in the current list of recommended criteria published by USEPA. Reference: "Quality Criteria for Water" (Red Book) U.S. EPA 1976.
(132) For open ocean waters where depth is substantially greater than euphotic zone, pH should not be changed > 0.2 units from naturally occurring variation or in any case outside of range 6.5 to 8.5. For shallow highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, change in pH should be avoided but in any case should not exceed limits for freshwater.,i.e., 6.5 to 9.0.
(133) For chlorides and sulfates in domestic water supplies.
(141) See Reference: U.S. EPA, 1986. "Quality Criteria for Water, 1986" EPA440/5-86-001 (Gold Book)

Table 13 - Oxnard Drainage Ditch #3
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Oxnard Drainage Ditch #3								California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Data Source 1		Data Source 2			Data Source 3				Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		W1E	W1	1	2	3	SW11-12	SW11-36	SW11-72	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum	Human Health*	6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
General Constituents																			
Total dissolved solids (TDS)	mg/L	9,000	NA	NA	NA	NA	NA	NA	NA										
Salinity	ppt	NA	NA	24	24	24	NA	NA	NA										
Specific conductance (EC)	mmho/cm	NA	14.7	NA	NA	NA	NA	NA	NA										
Nitrate-N	mg/L	57	NA	NA	NA	NA	NA	NA	NA										
Total Phosphorus	mg/L	0.4	NA	NA	NA	NA	NA	NA	NA										
pH	--	7.7	7.7	NA	NA	NA	NA	NA	NA										6 to 9 units (30,117)
Dissolved Metals																			
Aluminum	µg/L	NA	NA	NA	NA	NA	29.5 U	56.7 UJ	30.8 J										
Antimony	µg/L	NA	NA	NA	NA	NA	4.8 UJ	0.0 R	4.0 U	4,300 (2)				1,200					
Arsenic	µg/L	NA	NA	NA	NA	NA	1.2 UJ	2.7 UJ	2.6 U		36 (1,142)	69 (1,142)			8			32	80
Barium	µg/L	NA	NA	NA	NA	NA	27.5 J	25.6 J	39.0 J										
Beryllium	µg/L	NA	NA	NA	NA	NA	2.1 UJ	1.1 U	0.22 U					0.033 #					
Cadmium	µg/L	NA	NA	NA	NA	NA	1.3 U	2.2 U	0.42 U		9.3 (1,142)	42 (1,142)			1			4	10
Chromium (total)	µg/L	NA	NA	NA	NA	NA	10.8	4.4 U	3.0 UJ						2 (12)			8 (12)	20 (12)
Chromium (VI)	µg/L	NA	NA	NA	NA	NA	0.0	0.0	0.0		50 (1,142)	1100 (1,142)			2 (12)			8 (12)	20 (12)
Cobalt	µg/L	NA	NA	NA	NA	NA	3.7 U	6.7 U	1.1 UJ										
Copper	µg/L	NA	NA	NA	NA	NA	6.1 UJ	13.3 UJ	12.3		3.1 (1,142)	4.8 (1,142)			3			12	30
Cyanide	µg/L	NA	NA	NA	NA	NA	0.0	0.0	0.0	220,000 (142)	1 (142,143)	1 (142,143)			1			4	10
Lead	µg/L	NA	NA	NA	NA	NA	0.9 U	0.0 R	1.6 U		8.1 (1,142)	210 (1,142)			2			8	20
Magnesium	µg/L	NA	NA	NA	NA	NA	352,000	98,200 J	171,000										
Manganese	µg/L	NA	NA	NA	NA	NA	160.0 J	98.9	353.0										
Mercury (total)	µg/L	NA	NA	NA	NA	NA	0.1 U	1.4	0.11 U	0.051 (2,142)					0.04			0.16	0.4
Molybdenum	µg/L	NA	NA	NA	NA	NA	36.5	12.2 J	56.4										
Nickel	µg/L	NA	NA	NA	NA	NA	5.0 U	6.7 J	8.7 J	4,600 (2,142)	8.2 (1,142)	74 (1,142)			5			20	50
Selenium	µg/L	NA	NA	NA	NA	NA	11.0 UJ	2.6 UJ	4.4 U		71 (1,142)	290 (1,142)			15			60	150
Silver	µg/L	NA	NA	NA	NA	NA	13.5 UJ	0 R	1.7 J			1.9 (1,142)			0.7			2.8	7
Thallium	µg/L	NA	NA	NA	NA	NA	0 R	20.0 U	2.6 U	6.3 (2,143)				2					
Vanadium	µg/L	NA	NA	NA	NA	NA	68.5 UJ	16.7 UJ	0.92 UJ										
Zinc	µg/L	NA	NA	NA	NA	NA	13.3 U	65.6	10.0 J		81 (1,142)	90 (1,142)			20			80	200
Volatile Organic Compounds (VOCs																			
Benzene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	71 # (113)				5.9 #					
Bromobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Bromochloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Bromodichloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	46 # (113)				6.2 #					
Bromoform	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	360 # (113)				130 # (13)					
Bromomethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	4,000				130 # (13)					
2-Butatone (Methyl ethyl ketone)		NA	NA	ND	ND	ND	NA	NA	2 U										
n-Butylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
sec-Butylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
tert-Butylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Carbon tetrachloride	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 U	4.4 #(113,143)				0.9 #					
Chlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	21,000 (143)				570					
Chloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U										
Chloroform	µg/L	NA	NA	ND	ND	ND	NA	NA	NA					130 #					
Chloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 UJ					130 # (13)					
2-Chlorotoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
4-Chlorotoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Dibromochloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	34 # (113)				8.6 #					
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,2-Dibromoethane (EDB)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Dibromomethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,2-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	17,000				5,100 (77)					
1,3-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	2,600				5,100 (77)					
1,4-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	2,600				18 #					
Dichlorodifluoromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,1-Dichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U										
1,2-Dichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 U	99 # (113,143)				28 #					
1,1-Dichloroethylene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	3.2 # (113,143)				0.9 #					
cis-1,2-Dichloroethylene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
trans-1,2-Dichloroethylene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	14,0000									
1,2-Dichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	39									
1,3-Dichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
2,2-Dichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,3-Dichloropropene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1,700 (143)				8.9 #					
cis-1,3-Dichloropropene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
trans-1,3-Dichloropropene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Ethylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	29,000 (143)				4,100					
Hexachlorobutadiene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	50 # (113,143)				14 #					
2-Hexanone (Methyl n-butyl ketone)		NA	NA	NA	NA	NA	NA	NA	2 U										
Isopropylbenzene (Cumene)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
p-Isopropyltoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Methylene chloride (Dichloromethane)	µg/L	NA	NA	ND	ND	ND	NA	NA	2 UJ	1,600 # (113)				450 #					
4-Methyl-2-pentanol (Methyl isobutyl carbinol)		NA	NA	NA	NA	NA	NA	NA	2 U										
Naphthalene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
n-Propylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Styrene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,1,1,2-Tetrachloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,1,2,2-Tetrachloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	11 # (113,143)				2.3 #					
Tetrachloroethylene (PCE)	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	8.85 # (113,143)				2 #					
Toluene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	20,0000				85,000					
1,2,3-Trichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,2,4-Trichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,1,1-Trichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U					540,000					
1,1,2-Trichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	42 # (113,143)				9.4 #					
Trichloroethylene (TCE)	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 J	81 # (113,143)				27 #					
Trichlorofluoromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,2,3-Trichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,2,4-Trimethylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,3,5-Trimethylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Vinyl acetate		NA	NA	NA	NA	NA	NA	NA	0										
Vinyl chloride	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 UJ	525 #(113,143)				36 #					
Xylene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U										

Items in parentheses are footnotes

Table 13 - Oxnard Drainage Ditch #3
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Oxnard Drainage Ditch #3								California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Data Source 1		Data Source 2			Data Source 3				Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		W1E	W1	1	2	3	SW11-12	SW11-36	SW11-72	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum	Human Health*	6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
Polynuclear Aromatic Hydrocarbons (PAHs																			
Acenaphthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.0	2,700									
Acenaphthylene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U					0.0088 # (33)					
Aniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Anthracene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	11,0000				0.0088 # (33)					
Azobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Benzidine	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Benzoic acid	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Benz(a)anthracene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	0.049 # (113)				0.0088 # (33)					
Benzo(b)fluoranthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	0.049 # (113)				0.0088 # (33)					
Benzo(k)fluoranthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	0.049 # (113)				0.0088 # (33)					
Benzo(g,h,i)perylene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U					0.0088 # (33)					
Benzo(a)pyrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	0.049				0.0088 # (33)					
Benzyl alcohol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Bis(2-chloroethoxy) methane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA					4.4					
Bis(2-chloroethyl) ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1.4 # (113,143)				0.045 #					
Bis(2-chloroisopropyl) ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	170,000 (143)				1200					
Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl)phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	5.9 # (113,143)				3.5 #					
4-Bromophenyl phenyl ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
n-Butyl benzyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	5,200									
Carbazole	µg/L	NA	NA	NA	NA	NA	0.0	0.0	0.1 U										
4-Chloroaniline (p-Chloroaniline	µg/L	NA	NA	NA	NA	NA	0.0	0.0	1.0 UJ										
2-Chloronaphthalene	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 U	4,300									
4-Chloro-3-methylphenol (4-Chloro-m-cresol)	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 U						1 (87)			4 (87)	10 (87)
2-Chlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	400					1 (87)			4 (87)	10 (87)
4-Chlorophenyl phenyl ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Chrysene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	0.049 # (113)				0.0088 # (33)					
Dibenz(a,h)anthracene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	0.049 # (113)				0.0088 # (33)					
Dibenzofuran	µg/L	NA	NA	NA	NA	NA	0.0	0.0	0.1 U										
Di-n-butyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
1,2-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	17,000				5,100 (77)					
1,3-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	2,600				5,100 (77)					
1,4-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	2,600				18 #					
3,3'-Dichlorobenzidine	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	0.077 # (113,143)				0.0081 #					
2,4-Dichlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	790 (143)					1 (87)			4 (87)	10 (87)
Diethyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	120,000 (143)				33,000					
2,4-Dimethylphenol	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 UJ	2,300					30 (86)			120 (86)	300 (86)
Dimethyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	2,900,000 (143)				820,000					
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol]	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	765 (143)				220	30 (86)			120 (86)	300 (86)
2,4-Dinitrophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	14,000 (143)				4	30 (86)			120 (86)	300 (86)
2,4-Dinitrotoluene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	9.1 # (113,143)				2.6 #					
2,6-Dinitrotoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Di(n-octyl) phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Fluoranthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	370				15					
Fluorene	mg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	14,000				0.0088 # (33)					
Hexachlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	0.00077 #(113)				0.00021 #					
Hexachlorobutadiene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	50 # (113,143)				14 #					
Hexachlorocyclopentadiene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	17,000 (143)				58					
Hexachloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	8.9 # (113,143)				2.5 #					
Indeno(1,2,3-c,d)pyrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	0.049 # (113)				0.0088 # (33)					
Isophorone	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	600 #(113,143)				730 #					
2-Methylnaphthalene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 UJ										
2-Methylphenol (o-Cresol)	µg/L	NA	NA	ND	ND	ND	0.0	3.0 U	1.0 U						30 (86)			120 (86)	300 (86)
4-Methylphenol (p-Cresol)	µg/L	NA	NA	ND	ND	ND	0.0	3.0 U	1.0 U						30 (86)			120 (86)	300 (86)
Naphthalene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U										
2-Nitroaniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
3-Nitroaniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
4-Nitroaniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Nitrobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1,900 (143)				4.9					
2-Nitrophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA						30 (86)			120 (86)	300 (86)
4-Nitrophenol	µg/L	NA	NA	ND	ND	ND	50.0 U	3.0 U	5.0 U						30 (86)			120 (86)	300 (86)
n-Nitrosodiphenylamine	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	16 # (113,143)				2.5 #					
n-Nitrosodipropylamine	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	1.4				0.38 #					
Pentachlorophenol	µg/L	NA	NA	ND	ND	ND	50.0 UJ	3.0 U	5.0 U	8.2 # (113)	7.9	13			1 (87)			4 (87)	10 (87)
Phenanthrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U					0.0088 # (33)					
Phenol	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 U	4,600,000					30 (86)			120 (86)	300 (86)
Pyrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	11,000				0.0088 # (33)					
1,2,4-Trichlorobenzene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U										
2,4,5-Trichlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA						1 (87)			4 (87)	10 (87)
2,4,6-Trichlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	6.5 # (113)				0.29 #	1 (87)			4 (87)	10 (87)

Items in parentheses are footnotes

Table 13 - Oxnard Drainage Ditch #3
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Oxnard Drainage Ditch #3								California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Data Source 1		Data Source 2			Data Source 3				Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		W1E	W1	1	2	3	SW11-12	SW11-36	SW11-72	Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum	Human Health*	6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
Pesticides																			
Aldrin	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	0.00014 #(113)			1.3	0.000022 #					
alpha-BHC	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	0.013 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
beta-BHC	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	0.046 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
delta-BHC	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U						0.004 (43)			0.008 (43)	0.012 (43)
gamma-BHC (Lindane)	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	0.063 # (113)			0.16		0.004 (43)			0.008 (43)	0.012 (43)
alpha-Chlordane	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	0.00059 #(113)	0.004 (114)		0.09	0.000023 #(81)					
gamma-Chlordane	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U										
DDD	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 UJ	0.1 U	0.00084 #(113)				0.00017 # (50)					
DDE	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	0.00059 #(113)				0.00017 # (50)					
DDT	µg/L	NA	NA	ND	ND	**0.15****	0.1 U	0.1 U	0.1 U	**0.00059 # (113)**	**0.001 (114)**		**0.13**	**0.00017 # (50)**					
Dieldrin	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	0.00014 # (113)	0.0019 (114)		0.71	0.00004 #					
Endosulfan I	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
Endosulfan II	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
Endosulfan sulfate	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	240					0.009 (42)			0.018 (42)	0.027 (42)
Endrin	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	0.81 (18)	0.0023 (114)		0.037		0.002			0.004	0.006
Endrin aldehyde	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	0.81									
Endrin ketone	µg/L	NA	NA	ND	ND	ND													
Heptachlor	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	0.00021 #(113)	0.0036 (114)		0.053	0.00005 #					
Heptachlor epoxide	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	0.00011 #(113)	0.0036 (114)		0.053	0.00002 #					
Methoxychlor	µg/L	NA	NA	ND	ND	ND	0.5 U	0.5 U	0.5 U										
Toxaphene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	0.00075 #(113)	0.0002	0.21		0.00021 #					
Chlorinated Herbicide Acids																			
2,4-D	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
2,4-DB	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
2,4,5-T	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
2,4,5-TP (Silvex)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Dalapon	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Dicamba	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Dichloroprop	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Dinoseb	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
MCPA	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
MCPP	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
Polychlorinated biphenyls (PCBs																			
PCB-1016	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	0.00017 # (113)	0.03 (114,116)			0.000019 # (118)					
PCB-1221	µg/L	NA	NA	ND	ND	ND	NA	NA	NA										
PCB-1232	µg/L	NA	NA	ND	ND	ND	1 U	1 U	1 U										
PCB-1242	µg/L	NA	NA	ND	ND	ND	1 U	1 U	1 U										
PCB-1248	µg/L	NA	NA	ND	ND	ND	1 U	1 U	1 U										
PCB-1254	µg/L	NA	NA	ND	ND	ND	1 U	1 U	1 U										
PCB-1260	µg/L	NA	NA	ND	ND	ND	1 U	1 U	1 U										

Data Sources: 1) Jones & Stokes 1994, 2) Wetland Research Associates 2000, and 3) Navy 1994
Criteria Source: RWQCB 2003

Legend
- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
** Only pesticide detected was 4-4 DDT
\# Carcinogen
J Estimated concentration. Analyte detected above Minimum Detection Limit (MDL), but below Method Report Limit (MRL)
NA Not analyzed
ND Not detected
R Data qualified as unusable
U Undetected at or above MDL/MRL
(1) Expressed as dissolved
(2) Expressed as total recoverable
(12) Value developed for chromium (VI); may be applied to total chromium if valence unknow
(13) For sum of bromoform, bromomethane and chloromethane.
(18) Applies separately to endrin and endrin aldehyde.
(30) This limit has a range of values between the first and second numbers show
(33) For sum of acenaphthylene, anthracene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene.
(42) For endosulfan-alpha, endosulfan-beta and endosulfan sulfate.
(43) For benzene hexachloride isomers.
(50) For DDT, DDD, and DDE, in combination.
(77) For 1,2- and 1-3-dichlorobenzenes.
(81) For oxychlordane and alpha and gamma isomers of chlordane, chlordene and nonachlor.
(86) For nonchlorinated phenolic compounds.
(87) For chlorinated phenolic compounds.
(113) Based on carcinogenicity at 1-in-a-million risk level.
(114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule See Reference "National Toxics Rule" published in Federal Register, Volume 57, No. 246 pp. 60848-60923.
(115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(116) Applies separately to Aroclors 1016, 1242, 1254, 1221, 1232, 1248, and 1260; based on carcinogenicity at 1-in-a-million risk level.
(117) Effluent limitation for wastes discharged to waters
(118) For the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.
(142) Criteria do not apply to waters subject to water quality objectives in Tables III-2A and III-2B of the San Francisco Bay Regional Water Quality Control Board's 1986 Basin Plan. See Reference "California Toxic Rule" published in Federal Register, Volume 65, No, 97 pp. 31682-31719 and Volume 66, No. 30 pp. 9960-996
(143) These criteria were promulgated for specific California waters in the National Toxics Rule, see Reference "National Toxics Rule Revision" published in Federal Register, Volume 60, No. 86, pp. 22228-22237.

Table 14 - Oxnard Drainage Ditch #3
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Oxnard Drainage Ditch #3								U.S. EPA National Recommended Ambient Water Quality Criteria																
										For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
		Data Source 1		Data Source 2			Data Source 3						Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		W1E	W1	1	2	3	SW11-12	SW11-36	SW11-72	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
General Constituents																										
Total dissolved solids (TDS)	mg/L	9,000	NA	NA	NA	NA	29.5 U	56.7 UJ	30.8 J			250 (51,133)														
Salinity	ppt	NA	NA	24	24	24	NA	NA	NA																	
Specific conductance (EC)	mmho/cm	NA	14.7	NA	NA	NA	NA	NA	NA																	
Nitrate	mg/L	57	NA	NA	NA	NA	NA	NA	NA																	
Total Phosphorus	mg/L	0.4	NA	NA	NA	NA	NA	NA	NA				(141)							(141)						
pH		7.7	7.7	NA	NA	NA	NA	NA	NA			5 to 9 units (30,51)				6.5 to 9 units (30,51)							6.5 to 8.5 units (51,132)			
Dissolved Metals																										
Aluminum	µg/L	NA	NA	NA	NA	NA	29.5 U	56.7 UJ	30.8 J				87 (2,62)		750 (2,62)											
Antimony	µg/L	NA	NA	NA	NA	NA	4.8 UJ	0.0 R	4.0 U	640 (2)							9,000	1,600	610 (38)							
Arsenic	µg/L	NA	NA	NA	NA	NA	**1.2 UJ**	**2.7 UJ**	**2.6 U**		**0.14 # (2,94)**		150 (1)		340 (1)					36 (1)		69 (1)				
Barium	µg/L	NA	NA	NA	NA	NA	27.5 J	25.6 J	39.0 J																	
Beryllium	µg/L	NA	NA	NA	NA	NA	2.1 UJ	1.1 U	0.22 U								130	5.3								
Cadmium	µg/L	NA	NA	NA	NA	NA	1.3 U	2.2 U	0.42 U				see Figure A-3 (1)	see Figure A-3 (1)						8.8 (1)	40 (1)					
Chromium (total)	µg/L	NA	NA	NA	NA	NA	10.8	4.4 U	3.0 UJ																	
Chromium (VI)	µg/L	NA	NA	NA	NA	NA	0.0	0.0	0.0				11 (1)		16 (1)					50 (1)		1,100 (1)				
Cobalt	µg/L	NA	NA	NA	NA	NA	3.7 U	6.7 U	1.1 UJ																	
Copper	µg/L	NA	NA	NA	NA	NA	**6.1 UJ**	**13.3 UJ**	**12.3**			1,000	see Figure A-4 (1)		see Figure A 4 (1)					**3.1 (1)**		**4.8 (1)**				
Cyanide	µg/L	NA	NA	NA	NA	NA	0.0	0.0	0.0	1,6000			5.2 (137)		22 (137)					1 (137)		1 (137)				
Lead	µg/L	NA	NA	NA	NA	NA	0.9 U	0.0 R	1.6 U				see Figure A 5 (1)		see Figure A 5 (1)					8.1 (1)		210 (1)				
Magnesium	µg/L	NA	NA	NA	NA	NA	352,000	98,200 J	171,000																	
Manganese	µg/L	NA	NA	NA	NA	NA	**160.0 J**	**98.9**	**353.0**	**100 (51)**		**50 (51)**														
Mercury (total)	µg/L	NA	NA	NA	NA	NA	0.1 U	**1.4**	0.11 U				**0.77 (1,140)**		1.4 (1,140)					**0.94 (1,140)**		1.8 (1,140)				
Molybdenum	µg/L	NA	NA	NA	NA	NA	36.5	12.2 J	56.4																	
Nickel	µg/L	NA	NA	NA	NA	NA	5.0 U	6.7 J	**8.7 J**	4,600 (2)			see Figure A-6 (1)		see Figure A 6 (1)					**8.2 (1)**		74 (1)				
Selenium	µg/L	NA	NA	NA	NA	NA	11.0 UJ	2.6 UJ	4.4 U	4,200 (2)			5 (135)		(135,136)					71 (1)		290 (1)				
Silver	µg/L	NA	NA	NA	NA	NA	**13.5 UJ**	0 R	**1.7 J**							see Figure A-8 (1,154)							**1.9 (1,154)**			
Thallium	µg/L	NA	NA	NA	NA	NA	0 R	20.0 U	2.6 U	0.47 (2)							1,400	40	20 (16)					2,130		
Vanadium	µg/L	NA	NA	NA	NA	NA	68.5 UJ	16.7 UJ	0.92 UJ																	
Zinc	µg/L	NA	NA	NA	NA	NA	13.3 U	65.6	10.0 J	26,000 (2)		5,000	see Figure A-9 (1)		see Figure A 9 (1)					81 (1)		90 (1)				
Volatile Organic Compounds (VOCs)																										
Benzene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U		51 #						5,300							5,100		700 (83)
Bromobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Bromochloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
Bromodichloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		17 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
Bromoform	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		140 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
Bromomethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	1,500							11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
2-Butatone (Methyl ethyl ketone)		NA	NA	ND	ND	ND	NA	NA	2 U																	
n-Butylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
sec-Butylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
tert-Butylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Carbon tetrachloride	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 U		1.6 #						35,200							50,000	6,400 (20)	11,500 (20,82)
Chlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	1,600		20					250 (22)		50 (22,23)					160 (22)	129 (22)	
Chloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U																	
Chloroform	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		470 #						28,900	1240						12,000 (20)	6,400 (20)	11,500 (20,82)
Chloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 UJ								11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
2-Chlorotoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
4-Chlorotoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Dibromochloromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		13 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,2-Dibromoethane (EDB)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Dibromomethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,2-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1,300							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
1,3-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	960							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
1,4-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	190							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
Dichlorodifluoromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
1,1-Dichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U																	
1,2-Dichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 U		37 #						11,8000	2,0000						11,3000		
1,1-Dichloroethylene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U		7,100						11,600							224,000 (27)		
cis-1,2-Dichloroethylene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								11,600							224,000 (27)		
trans-1,2-Dichloroethylene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1,0000							11,600							224,000 (27)		
1,2-Dichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U		15 #						23,000 (28)	5,700 (28)						10,300 (28)	3,040 (28)	
1,3-Dichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
2,2-Dichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,3-Dichloropropene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		21 #						6,060 (29)	244 (29)						790 (29)		
cis-1,3-Dichloropropene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
trans-1,3-Dichloropropene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Ethylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	2,100							32,000							430		
Hexachlorobutadiene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		18 #						90	9.3						32		
2-Hexanone (Methyl n-butyl ketone)		NA	NA	NA	NA	NA	NA	NA	2 U																	
Isopropylbenzene (Cumene)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
p-Isopropyltoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Methylene chloride (Dichloromethane)	µg/L	NA	NA	ND	ND	ND	NA	NA	2 UJ		590 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
4-Methyl-2-pentanol (Methyl isobutyl carbinol)		NA	NA	NA	NA	NA	NA	NA	2 U																	
Naphthalene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								2,300	620						2,350		
n-Propylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Styrene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,1,1,2-Tetrachloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								9,320 (47)									
1,1,2,2-Tetrachloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		4 #						9,320 (47)	2,400						9,020		
Tetrachloroethylene (PCE)	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U		3.3 #						5280	840						10,200	450	
Toluene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U	15,000							17,500							6,300	5,000	
1,2,3-Trichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,2,4-Trichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	70							250 (22)		50 (22,23)					160 (22)	129 (22)	
1,1,1-Trichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U								18,000							31,200		
1,1,2-Trichloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U		16 #						18,000	9,400								
Trichloroethylene (TCE)	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 J		30 #						45,000		21,900 (31)					2,000		
Trichlorofluoromethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
1,2,3-Trichloropropane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,2,4-Trimethylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,3,5-Trimethylbenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Vinyl acetate		NA	NA	NA	NA	NA	NA	NA	0																	
Vinyl chloride	µg/L	NA	NA	ND	ND	ND	NA	NA	0.5 UJ		2.4 #															
Xylene	µg/L	NA	NA	ND	ND	ND	NA	NA	2 U																	

Items in parentheses are footnotes

Table 14 - Oxnard Drainage Ditch #3
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Oxnard Drainage Ditch #3								U.S. EPA National Recommended Ambient Water Quality Criteria																
		Data Source 1		Data Source 2			Data Source 3			For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
													Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		W1E	W1	1	2	3	SW11-12	SW11-36	SW11-72	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Polynuclear Aromatic Hydrocarbons (PAHs)																										
Acenaphthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.0	990		20					1700		520 (38)					970	710	500 (38)
Acenaphthylene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U															300 (52)		
Aniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA				14 (68)		28 (68)					37 (68)		77 (68)				
Anthracene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	40,000														300 (52)		
Azobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Benzidine	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		0.0002 #						2,500									
Benzoic acid	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Benz(a)anthracene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		0.018 # (41)													300 (52)		
Benzo(b)fluoranthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		0.018 # (41)													300 (52)		
Benzo(k)fluoranthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		0.018 (41)													300 (52)		
Benzo(g,h,i)perylene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U															300 (52)		
Benzo(a)pyrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		0.018 # (41)													300 (52)		
Benzyl alcohol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Bis(2-chloroethoxx) methane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Bis(2-chloroethyl) ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		0.53 #						238,000 (46)	122 (58)								
Bis(2-chloroisopropyl) ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	65,000							238,000 (46)	122 (58)								
Bis(2-ethylhexyl)phthalate (Di(2-ethylthexyl)phthalate)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		2.2 #		(138)							(138)						
4-Bromophenyl phenyl ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								360 (58)	122 (58)								
n-Butyl benzyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1,900							940 (45)	3 (45)						2,944 (45)		3.4 (38,45)
Carbazole		NA	NA	NA	NA	NA	0.0	0.0	0.1 U																	
4-Chloroaniline (p-Chloroaniline)	µg/L	NA	NA	NA	NA	NA	0.0	0.0	1.0 UJ																	
2-Chloronaphthalene	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 U	1,600							1,600 (48)							7.5 (48)		
4-Chloro-3-methylphenol (4-Chloro-m-cresol)	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 U			3,000					30									
2-Chlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	150		0.1					4,380		2,000 (34)							
4-Chlorophenyl phenyl ether	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Chrysene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		0.018 # (41)													300 (52)		
Dibenz(a,h)anthracene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		0.018 # (41)													300 (52)		
Dibenzofuran	µg/L	NA	NA	NA	NA	NA	0.0	0.0	0.1 U																	
Di-n-butyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
1,2-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	1,300							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
1,3-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	960							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
1,4-Dichlorobenzene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	190							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
3,3'-Dichlorobenzidine	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		0.028 #															
2,4-Dichlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	290		0.3					2,020	365	70 (35)							
Diethyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	44,000							940 (45)	3 (45)						2,944 (45)		3.4 (38,45)
2,4-Dimethylphenol	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 UJ	850		400					2120									
Dimethyl phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1,100,000							940 (45)	3 (45)						2,944 (45)		3.4 (38,45)
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	280							230 (88)		150 (38,88)					4,850 (88)		
2,4-Dinitrophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	5,300							230 (88)		150 (38,88)					4,850 (88)		
2,4-Dinitrotoluene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U		3.4 #						330 (53)	230 (53)						590 (53)		370 (53,82)
2,6-Dinitrotoluene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								330 (53)	230 (53)						590 (53)		370 (53,82)
Di(n-octyl) phthalate	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								940 (45)	3 (45)						2,944 (45)		3.4 (38,45)
Fluoranthene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	140							3,980							40	16	
Fluorene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	5,300														300 (52)		
Hexachlorobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		0.00029 #						250 (22)		50 (22,23)					160 (22)	129 (22)	
Hexachlorobutadiene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		18 #						90	9.3						32		
Hexachlorocyclopentadiene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	1,100		1					7	5.2						7		
Hexachloroethane	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		3.3 #						980	540						940		
Indeno(1,2,3-c,d)pyrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U		0.018 # (41)													300 (52)		
Isophorone	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U		960 #						117,000							1,2900		
2-Methylnaphthalene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 UJ																	
2-Methylphenol (o-Cresol)	µg/L	NA	NA	ND	ND	ND	0.0	3.0 U	1.0 U																	
4-Methylphenol (p-Cresol)	µg/L	NA	NA	ND	ND	ND	0.0	3.0 U	1.0 U																	
Naphthalene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U								2,300	620						2,350		
2-Nitroaniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
3-Nitroaniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
4-Nitroaniline	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Nitrobenzene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	690		30					27,000							6,680		
2-Nitrophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA								230 (88)		150 (38,88)					4,850 (88)		
4-Nitrophenol	µg/L	NA	NA	ND	ND	ND	50.0 U	3.0 U	5.0 U								230 (88)		150 (38,88)					4,850 (88)		
n-Nitrosodiphenylamine	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		6 #						5,850 (56)							3,300,000 (56)		
n-Nitrosodipropylamine	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U		0.15 #						5,850 (56)							3,300,000 (56)		
Pentachlorophenol	µg/L	NA	NA	ND	ND	ND	50.0 UJ	3.0 U	5.0 U		3 #	30	see Figure A-7		see Figure A-7					7.9		13				
Phenanthrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U															300 (52)		
Phenol	µg/L	NA	NA	ND	ND	ND	10.0 U	3.0 U	1.0 U	1,700,000		300					10,200	2,560						5,800		
Pyrene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	0.1 U	4,000														300 (52)		
1,2,4-Trichlorobenzene	µg/L	NA	NA	ND	ND	ND	0.0	0.0	1.0 U	70							250 (22)		50 (22,23)					160 (22)	129 (22)	
2,4,5-Trichlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA	3,600		1														
2,4,6-Trichlorophenol	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		2.4 #	2						970								
Pesticides																										
Aldrin	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		0.00005 #					3 (154)							1.3 (154)			
alpha-BHC	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		0.0049 #															
beta-BHC	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U		0.017 #															
delta-BHC	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U																	
gamma-BHC (Lindane)	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	1.8			0.08 (114)		0.95								0.16 (154)			
alpha-Chlordane	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U		0.00081 #		0.0043 (114)			2.4 (154)				0.004 (114)			0.09 (154)			
gamma-Chlordane	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U																	
DDD	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 UJ	0.1 U		0.00031 #						0.6							3.6		
DDE	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U		0.00022 #						1,050							14		
DDT	µg/L	NA	NA	ND	ND	**0.15****	0.1 U	0.1 U	0.1 U		**0.00022 #**		**0.001 (114,172)**			1.1 (154,172)				**0.001 (114,172)**			**0.13 (154,172)**			
Dieldrin	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U		0.000054 #		0.056 (139)		0.24					0.0019 (114)			0.71 (154)			
Endosulfan I	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
Endosulfan II	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
Endosulfan sulfate	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	89				0.056 (104)							0.0087 (104)					
Endrin	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	0.06			0.036 (139)		0.086					0.0023 (114)			0.037 (154)			
Endrin aldehyde	µg/L	NA	NA	ND	ND	ND	0.1 U	0.1 U	0.1 U	0.3																
Endrin ketone	µg/L	NA	NA	ND	ND	ND																				
Heptachlor	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U		0.000079 #		0.0038 (114)			0.52 (154)				0.0036 (114)			0.053 (154)			
Heptachlor epoxide	µg/L	NA	NA	ND	ND	ND	0.05 U	0.05 U	0.05 U		0.000039 #		0.0038 (114)			0.52 (154)				0.0036 (114)			0.053 (154)			
Methoxychlor	µg/L	NA	NA	ND	ND	ND	0.5 U	0.5 U	0.5 U							0.03 (51)							0.03 (51)			
Toxaphene	µg/L	NA	NA	ND	ND	ND	NA	NA	NA		0.00028 #		0.0002		0.73					0.0002		0.21				
Chlorinated Herbicide Acids																										
2,4-D	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
2,4-DB	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
2,4,5-T	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
2,4,5-TP (Silvex)	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Dalapon	µg/L	NA	NA	ND	ND	ND	NA	NA	NA							110 (54)										
Dicamba	µg/L	NA	NA	ND	ND	ND	NA	NA	NA							200 (54)										
Dichloroprop	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
Dinoseb	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
MCPA	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	
MCPP	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																	

Items in parentheses are footnotes

Table 14 - Oxnard Drainage Ditch #3
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Oxnard Drainage Ditch #3								U.S. EPA National Recommended Ambient Water Quality Criteria															
		Data Source 1		Data Source 2			Data Source 3			For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
													Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		W1E	W1	1	2	3	SW11-12	SW11-36	SW11-72	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Polychlorinated biphenyls (PCBs)																											
PCB-1016	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																		
PCB-1221	µg/L	NA	NA	ND	ND	ND	NA	NA	NA																		
PCB-1232	µg/L	NA	NA	ND	ND	ND	1 U	I U	I U																		
PCB-1242	µg/L	NA	NA	ND	ND	ND	1 U	I U	I U		0.000064 # (173)		0.014 (114,173)				2			0.03 (114,173)				10		
PCB-1248	µg/L	NA	NA	ND	ND	ND	1 U	I U	I U																		
PCB-1254	µg/L	NA	NA	ND	ND	ND	1 U	I U	I U																		
PCB-1260	µg/L	NA	NA	ND	ND	ND	1 U	I U	I U																		

Data Sources: 1) Jones & Stokes 1994, 2) Wetland Research Associates 2000, and 3) Navy 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
** Only pesticide detected was 4-4 DDT
\# Carcinogen
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect
J Estimated concentration. Analyte detected above Minimum Detection Limit (MDL), but below Method Report Limit (MRL)
NA Not analyzed
ND Not detected
R Data qualified as unusable
U Undetected at or above MDL/MRL
(1) Expressed as dissolved.
(2) Expressed as total recoverable
(16) Toxicity to one species of fish after 2600 hours of exposure
(20) For halomethanes.
(22) For chlorinated benzenes.
(23) Toxicity to a fish species exposed for 7.5 days
(24) For dichlorobenzenes.
(27) For dichloroethylenes.
(28) For dichloropropanes.
(29) For dichloropropenes.
(30) This limit has a range of values between the first and second numbers shown.
(31) Adverse behavioral effects occur to one species
(34) Flavor impairment in a fish species occurs.
(35) Mortality to early life stages of a fish species occurs
(38) Toxicity to algae occurs
(41) For carcinogenic polynuclear aromatic hydrocarbons
(45) For sum of phthalate esters.
(46) For chloroalkyl ethers.
(47) For tetrachloroethanes.
(48) For chlorinated naphthalenes.
(51) This criterion is from a 1976 USEPA reference and also appears in the current list of recommended criteria published by USEPA. Reference: "Quality Criteria for Water" (Red Book) U.S. EPA 1976
(52) For polynuclear aromatic hydrocarbons
(53) For dinitrotoluenes.
(54) This criterion is from a 1973 USEPA reference ("Water Quality Criteria, 1972" [Blue Book]), but it does not appear in the current list of recommended criteria published by USEPA.
(56) For nitrosamines.
(58) For haloethers.
(62) For pH between 6.5 and 9.0. Use of Water-Effects Ratios might be appropriate because: (1) aluminum is less toxic at higher pH and hardness but relationship not well quantified; (2) aluminum associated with clay particles may be less toxic than that associated with aluminum hydroxide particles; (3) many high quality waters in U.S. exceed 87 ug/L as total or dissolved.
(68) Draft / tentative / provisional; applies only to second value if two separate values are listed; applies to range if a range of values is listei
(82) A decrease in the number of algal cells occurs.
(83) Adverse effects on a fish species exposed for 168 days
(88) For nitrophenols.
(104) Based on endosulfan Reference: "Water Quality Advisory" US EPA March 1986, September 1987
(114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule published in Federal Register Vol. 57 No. 246 pp. 22228-22237
(115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(132) For open ocean waters where depth is substantially greater than euphotic zone, pH should not be changed > 0.2 units from naturally occurring variation or in any case outside of range 6.5 to 8.5. For shallow highly productive coastal and estuarine areas where naturally occurring pH variations approach the lethal limits of some species, change in pH should be avoided but in any case should not exceed limits for freshwater.,i.e., 6.5 to 9.0.
(133) For chlorides and sulfates in domestic water supplies.
(135) Expressed as total recoverable; may be converted to a value expressed as dissolved by multiplying the maximum criterion by 0.996 and the continuous criterion by 0.922
(136) The Maximum Concentration is equal to 1/ [(f1/185.9) + (f2/12.83)], where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively
(137) Expressed as free cyanide (as CN)
(138) Not toxic to aquatic organisms at or below the solubility limit of this chemical. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(139) The derivation of this criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
(140) Criterion derived from data for inorganic mercury (II), but is applied to total mercury. It will probably be underprotective if a substantial portion of mercury in the water column is methylmercury. Derivation of criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047..
(141) See Reference: U.S. EPA, 1986. "Quality Criteria for Water, 1986" EPA440/5-86-001 (Gold Book)
(154) If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a Criteria Maximum Concentration (1-hour average). See Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(172) Applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).
(173) Applies to total PCBs (e.g., sum of all congener or all isomer or homolog or Aroclor analyses)

Table 15 - Ventura County Game Preserve South Boundary
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Drainage Channel to Mugu Lagoon					South Boundary of Ventura County Game Preserve					California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Sample ID / Sample Date											Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		SW11-13	SW11-70				SW11-32	SW11-71				Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum	Human Health*	6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
		Feb '94	June '98	Aug '98	Nov '98	Feb '99	Feb '94	June '98	Aug '98	Nov '98	Feb '99										
Dissolved Metals																					
Aluminum	µg/L	60.0 UJ	NA	NA	NA	49.4 J	29.5 U	NA	NA	NA	32.1 J										
Antimony	µg/L	66.7 UJ	NA	NA	NA	10.0 U	1.9 UJ	NA	NA	NA	8.0 U	4,300 (2)				1,200					
Arsenic	µg/L	**26.7 J**	NA	NA	NA	**11.7 J**	1.5 UJ	NA	NA	NA	**11.9 J**		36 (1,142)	69 (1,142)			**8**			32	80
Barium	µg/L	26.7 J	NA	NA	NA	29.9 J	38.8 J	NA	NA	NA	54.7 J										
Beryllium	µg/L	1.1 U	NA	NA	NA	0.55 U	2.1 UJ	NA	NA	NA	0.44 U					0.033 #					
Cadmium	µg/L	2.2 U	NA	NA	NA	1.1 U	1.3 U	NA	NA	NA	0.84 U		9.3 (1,142)	42 (1,142)			1			4	10
Chromium (total)	µg/L	**4.4 U**	NA	NA	NA	**4.8 J**	**9.6 J**	NA	NA	NA	**4.1 J**						**2 (12)**			8 (12)	20 (12)
Chromium (VI)	µg/L	0.0	NA	NA	NA	0.0	0.0	NA	NA	NA	0.0		50 (1,142)	1100 (1,142)			2 (12)			8 (12)	20 (12)
Cobalt	µg/L	6.7 J	NA	NA	NA	2.2 U	3.7 U	NA	NA	NA	1.8 U										
Copper	µg/L	**6.7 J**	NA	NA	NA	**12.6 J**	**6.5 UJ**	NA	NA	NA	**11.3 J**		**3.1 (1,142)**	**4.8 (1,142)**			**3**			**12**	30
Cyanide	µg/L	0.0	NA	NA	NA	0.0	0.0	NA	NA	NA	0.0	220,000 (142)	1 (142,143)	1 (142,143)			1			4	10
Lead	µg/L	**11.1 UJ**	NA	NA	NA	4.1 U	0.9 U	NA	NA	NA	**4.9 J**		8.1 (1,142)	210 (1,142)			**2**			8	20
Magnesium	µg/L	578,000 J	NA	NA	NA	320,000	207,000	NA	NA	NA	232,000										
Manganese	µg/L	97.8	NA	NA	NA	257.0	208.0 J	NA	NA	NA	534.0										
Mercury (total)	µg/L	0.2 U	NA	NA	NA	0.11 U	0.1 U	NA	NA	NA	0.11 U	0.051 (2,142)					0.04			0.16	0.4
Molybdenum	µg/L	24.4 J	NA	NA	NA	26.5	37.0	NA	NA	NA	25.5										
Nickel	µg/L	5.6 U	NA	NA	NA	5.0 UJ	5.0 U	NA	NA	NA	3.9 UJ	4,600 (2,142)	8.2 (1,142)	74 (1,142)			5			20	50
Selenium	µg/L	25.6 U	NA	NA	NA	11.0 U	11.0 UJ	NA	NA	NA	8.8 U		71 (1,142)	290 (1,142)			15			60	150
Silver	µg/L	0 R	NA	NA	NA	**3.0 J**	**2.7 UJ**	NA	NA	NA	**2.2 J**			**1.9 (1,142)**			**0.7**			**2.8**	7
Thallium	µg/L	100.0 UJ	NA	NA	NA	6.5 U	0 R	NA	NA	NA	5.2 U	6.3 (2,143)				2					
Vanadium	µg/L	18.9 UJ	NA	NA	NA	1.6 U	49.5 UJ	NA	NA	NA	1.3 U										
Zinc	µg/L	13.3 UJ	NA	NA	NA	4.1 UJ	13.3 U	NA	NA	NA	2.1 U		81 (1,142)	90 (1,142)			20			80	200
Volatile Organic Compounds (VOCs)																					
Benzene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	0.5 U	71 # (113)				5.9 #					
Bromomethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 UJ	2 U	2 U	4,000				130 # (13)					
2-Butatone (Methyl ethyl ketone)		NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 UJ										
Carbon tetrachloride	µg/L	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.05 UJ	0.5 U	4.4 # (113,143)				0.9 #					
Chlorobenzene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	21,000 (143)				570					
Chloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 UJ	2 U	2 U										
Chloromethane	µg/L	NA	2 UJ	NA	NA	NA	NA	7 J	2 U	2 U	2 U					130 # (13)					
1,1-Dichloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U										
1,2-Dichloroethane	µg/L	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	99 # (113,143)				28 #					
1,1-Dichloroethylene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	3.2 # (113,143)				0.9 #					
trans-1,2-Dichloroethylene	µg/L	NA	0	NA	NA	NA	NA	0	0	2 U	2 U	14,0000									
1,2-Dichloropropane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	39									
Ethylbenzene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	29,000 (143)				4,100					
2-Hexanone (Methyl n-butyl ketone)		NA	2 U	NA	NA	NA	NA	2 U	2 UJ	2 UJ	2 U										
Methylene chloride (Dichloromethane)	µg/L	NA	2 UJ	NA	NA	NA	NA	2 UJ	2 UJ	2 U	2 U	1,600 # (113)				450 #					
4-Methyl-2-pentanol (Methyl isobutyl carbinol)		NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U										
Tetrachloroethylene (PCE)	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	8.85 # (113,143)				2 #					
Toluene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	20,0000				85,000					
1,1,1-Trichloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U					540,000					
1,1,2-Trichloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	42 # (113,143)				9.4 #					
Trichloroethylene (TCE)	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	81 # (113,143)				27 #					
Vinyl acetate		NA	0	NA	NA	NA	NA	0	0	0	0										
Vinyl chloride	µg/L	NA	0.5 UJ	NA	NA	NA	NA	0.5 UJ	0.5 UJ	0.5 U	1	525 # (113,143)				36 #					
Xylene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U										
m-Xylene	µg/L	NA	0	NA	NA	NA	NA	0	0	0	0										
o-Xylene	µg/L	NA	0	NA	NA	NA	NA	0	0	0	0										

Items in parentheses are footnotes

Table 15 - Ventura County Game Preserve South Boundary
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Drainage Channel to Mugu Lagoon					South Boundary of Ventura County Game Preserve					California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Sample ID / Sample Date											Salt Water Aquatic Life Protection				Marine Aquatic Life Protection				
		SW11-13	SW11-70				SW11-32	SW11-71				Human Health*	Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum	Human Health*	6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
		Feb '94	June '98	Aug '98	Nov '98	Feb '99	Feb '94	June '98	Aug '98	Nov '98	Feb '99										
Polynuclear Aromatic Hydrocarbons (PAHs)																					
Acenaphthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	2,700									
Acenaphthylene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA					0.0088 # (33)					
Anthracene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	11,0000				0.0088 # (33)					
Benz(a)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	0.049 # (113)				0.0088 # (33)					
Benzo(b)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	0.049 # (113)				0.0088 # (33)					
Benzo(k)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	0.049 # (113)				0.0088 # (33)					
Benzo(g,h,i)perylene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA					0.0088 # (33)					
Benzo(a)pyrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	0.049				0.0088 # (33)					
Carbazole	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA										
4-Chloroaniline (p-Chloroaniline)	µg/L	0.0	1.0 UJ	NA	NA	NA	0.0	1.0 U	NA	NA	NA										
2-Chloronaphthalene	µg/L	3.0 U	1.0	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA	4,300									
4-Chloro-3-methylphenol (4-Chloro-m-cresol)	µg/L	3.0 U	1.0 U	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA						1 (87)			4 (87)	10 (87)
Chrysene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	0.049 # (113)				0.0088 # (33)					
Dibenz(a,h)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	0.049 # (113)				0.0088 # (33)					
Dibenzofuran	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA										
1,2-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	17,000				5,100 (77)					
1,4-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	2,600				18 #					
2,4-Dimethylphenol	µg/L	3.0 U	1.0 UJ	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA	2,300					30 (86)			120 (86)	300 (86)
2,4-Dinitrotoluene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	9.1 # (113,143)				2.6 #					
Fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	370				15					
Fluorene	mg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	14,000				0.0088 # (33)					
Hexachlorobutadiene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	50 # (113,143)				14 #					
Indeno(1,2,3-c,d)pyrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	0.049 # (113)				0.0088 # (33)					
Isophorone	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	600#(113,143)				730 #					
2-Methylnaphthalene	µg/L	0.0	1.0 UJ	NA	NA	NA	0.0	1.0 U	NA	NA	NA										
2-Methylphenol (o-Cresol)	µg/L	3.0 U	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA						30 (86)			120 (86)	300 (86)
4-Methylphenol (p-Cresol)	µg/L	3.0 U	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA						30 (86)			120 (86)	300 (86)
Naphthalene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA										
4-Nitrophenol	µg/L	3.0 U	5.0 U	NA	NA	NA	50.0 U	5.0 U	NA	NA	NA						30 (86)			120 (86)	300 (86)
n-Nitrosodipropylamine	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 UJ	NA	NA	NA	1.4				0.38 #					
Pentachlorophenol	µg/L	3.0 U	5.0 U	NA	NA	NA	50.0 U	3.0 UJ	NA	NA	NA	8.2 # (113)	7.9	13			1 (87)			4 (87)	10 (87)
Phenanthrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA					0.0088 # (33)					
Phenol	µg/L	3.0 U	1.0 U	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA	4,600,000					30 (86)			120 (86)	300 (86)
Pyrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	11,000				0.0088 # (33)					
1,2,4-Trichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA										
Pesticides																					
beta-BHC	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	0.046 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
delta-BHC	µg/L	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	**0.03 J**	0.05 U						**0.004 (43)**			**0.008 (43)**	**0.012 (43)**
gamma-BHC (Lindane)	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	0.063 # (113)			0.16		0.004 (43)			0.008 (43)	0.012 (43)
alpha-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	0.00059 # (113)	0.004 (114)		0.09	0.000023 # (81)					
gamma-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U										
DDD	µg/L	0.1 UJ	**0.006 J**	0.02 U	0.1 U	0.1 U	01 UJ	0.02 U	0.02 U	0.1 U	0.1 U	**0.00084 #(113)**				**0.00017 #(50)**					
DDE	µg/L	0.1 U	**0.01 J**	**0.01 J**	0.1 U	0.1 U	0.1 UJ	0.02 U	**0.008 J**	0.1 U	0.1 U	**0.00059 #(113)**				**0.00017 #(50)**					
DDT	µg/L	0.1 UJ	0.02 UJ	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 UJ	0.02 U	0.1 U	0.1 U	0.00059 # (113)	0.001 (114)		0.13	0.00017 #(50)					
Dieldrin	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	0.00014 # (113)	0.0019 (114)		0.71	0.00004 #					
Endosulfan I	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
Endosulfan II	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
Endosulfan sulfate	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	240					0.009 (42)			0.018 (42)	0.027 (42)
Endrin	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	0.81 (18)	0.0023 (114)		0.037		0.002			0.004	0.006
Endrin aldehyde	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	0.81									
Endrin ketone	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U										
Heptachlor	µg/L	0.05 U	0.01 U	0.01 U	**0.013 J**	0.05 U	0.05 UJ	0.01 U	0.01 U	0.01 U	0.05 U	**0.00021 # (113)**	**0.0036 (114)**		0.053	**0.00005 #**					
Heptachlor epoxide	µg/L	0.05 U	0.01 U	0.01 U	**0.013**	0.05 U	0.05 UJ	0.01 U	0.01 U	0.019	0.05 U	**0.00011 # (113)**	**0.0036 (114)**		0.053	**0.00002 #**					
Methoxychlor	µg/L	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.5 UJ	0.1 U	0.1 U	0.5 U	0.5 U										

Items in parentheses are footnotes

Table 15 - Ventura County Game Preserve South Boundary
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	Drainage Channel to Mugu Lagoon					South Boundary of Ventura County Game Preserve					California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Sample ID / Sample Date										Human Health*	Salt Water Aquatic Life Protection			Human Health*	Marine Aquatic Life Protection				
		SW11-13	SW11-70				SW11-32	SW11-71					Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum		6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
		Feb '94	June '98	Aug '98	Nov '98	Feb '99	Feb '94	June '98	Aug '98	Nov '98	Feb '99										
Polychlorinated biphenyls (PCBs)																					
PCB-1232	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U	0.00017 # (113)	0.03 (114,116)			0.000019 # (118)					
PCB-1242	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U										
PCB-1248	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U										
PCB-1254	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U										
PCB-1260	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U										

Data Source: Navy 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

- * Aquatic organism consumption only
- ** Only pesticide detected was 4-4 DDT
- # Carcinogen
- J Estimated concentration. Analyte detected above Minimum Detection Limit (MDL), but below Method Report Limit (MRL)
- NA Not analyzed
- ND Not detected
- R Data qualified as unusable
- U Undetected at or above MDL/MRL (PQL)
- (1) Expressed as dissolved.
- (2) Expressed as total recoverable.
- (12) Value developed for chromium (VI); may be applied to total chromium if valence unknown.
- (13) For sum of bromoform, bromomethane and chloromethane.
- (18) Applies separately to endrin and endrin aldehyde.
- (33) For sum of acenaphthylene, anthracene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene.
- (42) For endosulfan-alpha, endosulfan-beta and endosulfan sulfate.
- (43) For benzene hexachloride isomers.
- (50) For DDT, DDD, and DDE, in combination.
- (77) For 1,2- and 1-3-dichlorobenzenes.
- (81) For oxychlordane and alpha and gamma isomers of chlordane, chlordene and nonachlor.
- (86) For nonchlorinated phenolic compounds.
- (87) For chlorinated phenolic compounds.
- (113) Based on carcinogenicity at 1-in-a-million risk level.
- (114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule See Reference "National Toxics Rule" published in Federal Register, Volume 57, No. 246 pp. 60848-60923.
- (115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
- (116) Applies separately to Aroclors 1016, 1242, 1254, 1221, 1232, 1248, and 1260; based on carcinogenicity at 1-in-a-million risk level.
- (118) For the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.
- (142) Criteria do not apply to waters subject to water quality objectives in Tables III-2A and III-2B of the San Francisco Bay Regional Water Quality Control Board's 1986 Basin Plan. See Reference "California Toxic Rule" published in Federal Register, Volume 65, No, 97 pp. 31682-31719 and Volume 66, No. 30 pp. 9960-9962.
- (143) These criteria were promulgated for specific California waters in the National Toxics Rule, see Reference "National Toxics Rule Revision" published in Federal Register, Volume 60, No. 86, pp. 22228-22237.

Table 16 - Ventura County Game Preserve South Boundary
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Drainage Channel to Mugu Lagoon					South boundary of Ventura County Game Preserve					U.S. EPA National Recommended Ambient Water Quality Criteria																	
												For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
		Sample ID / Sample Date													Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		SW11-13	SW11-70				SW11-32	SW11-71				Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare															
		Feb '94	June '98	Aug '98	Nov '98	Feb '99	Feb '94	June '98	Aug '98	Nov '98	Feb '99				CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Dissolved Metals																													
Aluminum	µg/L	60.0 UJ	NA	NA	NA	49.4 J	29.5 U	NA	NA	NA	32.1 J				87 (2,62)		750 (2,62)												
Antimony	µg/L	66.7 UJ	NA	NA	NA	10.0 U	1.9 UJ	NA	NA	NA	8.0 U	640 (2)							9,000	1,600	610 (38)								
Arsenic	µg/L	**26.7 J**	NA	NA	NA	**11.7 J**	**1.5 UJ**	NA	NA	NA	**11.9 J**		**0.14 # (2,94)**		150 (1)		340 (1)					36 (1)		69 (1)					
Barium	µg/L	26.7 J	NA	NA	NA	29.9 J	38.8 J	NA	NA	NA	54.7 J																		
Beryllium	µg/L	1.1 U	NA	NA	NA	0.55 U	2.1 UJ	NA	NA	NA	0.44 U								130	5.3									
Cadmium	µg/L	2.2 U	NA	NA	NA	1.1 U	1.3 U	NA	NA	NA	0.84 U				see Fig A-3 (1)	see Fig A-3 (1)						8.8 (1)	40 (1)						
Chromium (total)	µg/L	4.4 U	NA	NA	NA	4.8 J	9.6 J	NA	NA	NA	4.1 J																		
Chromium (VI)	µg/L	0.0	NA	NA	NA	0.0	0.0	NA	NA	NA	0.0				11 (1)		16 (1)					50 (1)		1,100 (1)					
Cobalt	µg/L	6.7 J	NA	NA	NA	2.2 U	3.7 U	NA	NA	NA	1.8 U																		
Copper	µg/L	**6.7 J**	NA	NA	NA	**12.6 J**	6.5 UJ	NA	NA	NA	**11.3 J**			1,000	see Fig A-4 (1)		see Fig A-4 (1)					**3.1 (1)**		**4.8 (1)**					
Cyanide	µg/L	0.0	NA	NA	NA	0.0	0.0	NA	NA	NA	0.0	1,6000			5.2 (137)		22 (137)					1 (137)		1 (137)					
Lead	µg/L	11.1 UJ	NA	NA	NA	4.1 U	0.9 U	NA	NA	NA	4.9 J				see Fig A-5 (1)		see Fig A-5 (1)					8.1 (1)		210 (1)					
Magnesium	µg/L	578,000 J	NA	NA	NA	320,000	207,000	NA	NA	NA	232,000																		
Manganese	µg/L	**97.8**	NA	NA	NA	**257.0**	**208.0 J**	NA	NA	NA	**534.0**	**100 (51)**		**50 (51)**															
Mercury (total)	µg/L	0.2 U	NA	NA	NA	0.11 U	0.1 U	NA	NA	NA	0.11 U				0.77 (1,140)		1.4 (1,140)					0.94 (1,140)		1.8 (1,140)					
Molybdenum	µg/L	24.4 J	NA	NA	NA	26.5	37.0	NA	NA	NA	25.5																		
Nickel	µg/L	5.6 U	NA	NA	NA	5.0 UJ	5.0 U	NA	NA	NA	3.9 UJ	4,600 (2)			see Fig A-6 (1)		see Fig A-6 (1)					8.2 (1)		74 (1)					
Selenium	µg/L	25.6 U	NA	NA	NA	11.0 U	11.0 UJ	NA	NA	NA	8.8 U	4,200 (2)			5 (135)		(135,136)					71 (1)		290 (1)					
Silver	µg/L	0 R	NA	NA	NA	**3.0 J**	2.7 UJ	NA	NA	NA	**2.2 J**							see Fig A-8 (1,154)							**1.9 (1,154)**				
Thallium	µg/L	100.0 UJ	NA	NA	NA	6.5 U	0 R	NA	NA	NA	5.2 U	0.47 (2)							1,400	40	20 (16)					2,130		
Vanadium	µg/L	18.9 UJ	NA	NA	NA	1.6 U	49.5 UJ	NA	NA	NA	1.3 U																		
Zinc	µg/L	13.3 UJ	NA	NA	NA	4.1 UJ	13.3 U	NA	NA	NA	2.1 U	26,000 (2)		5,000	see Fig A-9 (1)		see Fig A-9 (1)					81 (1)		90 (1)					
Volatile Organic Compounds (VOCs)																													
Benzene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	0.5 U		51 #						5,300							5,100		700 (83)
Bromomethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 UJ	2 U	2 U	1,500							11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
2-Butatone (Methyl ethyl ketone)	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 UJ																	
Carbon tetrachloride	µg/L	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.05 UJ	0.5 U		1.6 #						35,200							50,000	6,400 (20)	11,500 (20,82)
Chlorobenzene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	1,600		20					250 (22)		50 (22,23)					160 (22)	129 (22)	
Chloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 UJ	2 U	2 U																	
Chloromethane	µg/L	NA	2 UJ	NA	NA	NA	NA	7 J	2 U	2 U	2 U								11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
1,1-Dichloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U																	
1,2-Dichloroethane	µg/L	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U		37 #						11,8000	2,0000						11,3000		
1,1-Dichloroethylene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U		7,100						11,600 (27)							224,000		
trans-1,2-Dichloroethylene	µg/L	NA	0	NA	NA	NA	NA	0	0	2 U	2 U	1,0000							11,600 (27)							224,000		
1,2-Dichloropropane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U		15 #						23,000 (28)	5,700 (28)						10,300 (28)	3,040 (28)	
Ethylbenzene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	2,100							32,000							430		
2-Hexanone (Methyl n-butyl ketone)	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 UJ	2 UJ	2 U																	
Methylene chloride (Dichloromethane)	µg/L	NA	2 UJ	NA	NA	NA	NA	2 UJ	2 UJ	2 U	2 U		590 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
4-Methyl-2-pentanol (Methyl isobutyl carbinol)	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U																	
Tetrachloroethylene (PCE)	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U		3.3 #						5280	840						10,200	450	
Toluene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U	15,000							17,500							6,300	5,000	
1,1,1-Trichloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U								18,000							31,200		
1,1,2-Trichloroethane	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U		16 #						18,000	9,400								
Trichloroethylene (TCE)	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U		30 #						45,000		21,900 (31)					2,000		
Vinyl acetate	µg/L	NA	0	NA	NA	NA	NA	0	0	0	0																	
Vinyl chloride	µg/L	NA	0.5 UJ	NA	NA	NA	NA	0.5 UJ	0.5 UJ	0.5 U	1		2.4 #															
Xylene	µg/L	NA	2 U	NA	NA	NA	NA	2 U	2 U	2 U	2 U																	
m-Xylene	µg/L	NA	0	NA	NA	NA	NA	0	0	0	0																	
o-Xylene	µg/L	NA	0	NA	NA	NA	NA	0	0	0	0																	

Items in parentheses are footnotes

Table 16 - Ventura County Game Preserve South Boundary
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Drainage Channel to Mugu Lagoon					South boundary of Ventura County Game Preserve					U.S. EPA National Recommended Ambient Water Quality Criteria																
												For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
		Sample ID / Sample Date										Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		SW11-13	SW11-70				SW11-32	SW11-71																				
		Feb '94	June '98	Aug '98	Nov '98	Feb '99	Feb '94	June '98	Aug '98	Nov '98	Feb '99				CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Polynuclear Aromatic Hydrocarbons (PAHs)																												
Acenaphthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	990		20					1700		520 (38)					970	710	500 (38)
Acenaphthylene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA															300 (52)		
Anthracene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	40,000														300 (52)		
Benz(a)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA		0.018 # (41)													300 (52)		
Benzo(b)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA		0.018 # (41)													300 (52)		
Benzo(k)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA		0.018 (41)													300 (52)		
Benzo(g,h,i)perylene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA															300 (52)		
Benzo(a)pyrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA		0.018 # (41)													300 (52)		
Carbazole		0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA																	
4-Chloroaniline (p-Chloroaniline)	µg/L	0.0	1.0 UJ	NA	NA	NA	0.0	1.0 U	NA	NA	NA																	
2-Chloronaphthalene	µg/L	3.0 U	1.0	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA	1,600							1,600 (48)							7.5 (48)		
4-Chloro-3-methylphenol (4-Chloro-m-cresol)	µg/L	3.0 U	1.0 U	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA			3,000					30									
Chrysene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA		0.018 # (41)													300 (52)		
Dibenz(a,h)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA		0.018 # (41)													300 (52)		
Dibenzofuran	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA																	
1,2-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	1,300							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
1,4-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	190							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
2,4-Dimethylphenol	µg/L	3.0 U	1.0 UJ	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA	850		400					2120									
2,4-Dinitrotoluene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA		3.4 #						330 (53)	230 (53)						590 (53)		370 (53,82)
Fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	140							3,980							40	16	
Fluorene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	5,300														300 (52)		
Hexachlorobutadiene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA		18 #						90	9.3						32		
Indeno(1,2,3-c,d)pyrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA		0.018 # (41)													300 (52)		
Isophorone	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA		960 #						117,000							1,2900		
2-Methylnaphthalene	µg/L	0.0	1.0 UJ	NA	NA	NA	0.0	1.0 U	NA	NA	NA																	
2-Methylphenol (o-Cresol)	µg/L	3.0 U	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA																	
4-Methylphenol (p-Cresol)	µg/L	3.0 U	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA																	
Naphthalene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA								2,300	620						2,350		
4-Nitrophenol	µg/L	3.0 U	5.0 U	NA	NA	NA	50.0 U	5.0 U	NA	NA	NA								230 (88)		150 (38,88)					4,850 (88)		
n-Nitrosodipropylamine	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 UJ	NA	NA	NA		0.15 #						5,850 (56)							3,300,000 (56)		
Pentachlorophenol	µg/L	3.0 U	5.0 U	NA	NA	NA	50.0 U	3.0 UJ	NA	NA	NA		3 #	30	see Figure A-7		see Figure A-7					7.9		13				
Phenanthrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA															300 (52)		
Phenol	µg/L	3.0 U	1.0 U	NA	NA	NA	10.0 U	1.0 U	NA	NA	NA	1,700,000		300					10,200	2,560						5,800		
Pyrene	µg/L	0.0	0.1 U	NA	NA	NA	0.0	0.1 U	NA	NA	NA	4,000														300 (52)		
1,2,4-Trichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	0.0	1.0 U	NA	NA	NA	70							250 (22)		50 (22,23)					160 (22)	129 (22)	
Pesticides																												
beta-BHC	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U		0.017 #															
delta-BHC	µg/L	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.03 J	0.05 U																	
gamma-BHC (Lindane)	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	1.8			0.08 (114)		0.95								0.16 (154)			
alpha-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U		0.00081 #		0.0043 (114)			2.4 (154)				0.004 (114)			0.09 (154)			
gamma-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U																	
DDD	µg/L	0.1 UJ	**0.006 J**	0.02 U	0.1 U	0.1 U	01 UJ	0.02 U	0.02 U	0.1 U	0.1 U		**0.00031 #**						0.6							3.6		
DDE	µg/L	0.1 U	**0.01 J**	**0.01 J**	0.1 U	0.1 U	0.1 UJ	0.02 U	**0.008 J**	0.1 U	0.1 U		**0.00022 #**						1,050							14		
DDT	µg/L	0.1 UJ	0.02 UJ	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 UJ	0.02 U	0.1 U	0.1 U		0.00022 #		0.001 (114,172)			1.1 (154,172)				0.001 (114,172)			0.13 (154,172)			
Dieldrin	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U		0.000054 #		0.056 (139)		0.24					0.0019 (114)			0.71 (154)			
Endosulfan I	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.01 U	0.01 U	0.05 U	0.05 U	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
Endosulfan II	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
Endosulfan sulfate	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	89				0.056 (104)							0.0087 (104)					
Endrin	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	0.06			0.036 (139)		0.086					0.0023 (114)			0.037 (154)			
Endrin aldehyde	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U	0.3																
Endrin ketone	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.02 U	0.02 U	0.1 U	0.1 U																	
Heptachlor	µg/L	0.05 U	0.01 U	0.01 U	**0.013 J**	0.05 U	0.05 UJ	0.01 U	0.01 U	0.01 U	0.05 U		**0.000079 #**		**0.0038 (114)**			0.52 (154)				**0.0036 (114)**			0.053 (154)			
Heptachlor epoxide	µg/L	0.05 U	0.01 U	0.01 U	**0.013**	0.05 U	0.05 UJ	0.01 U	0.01 U	0.019	0.05 U		**0.000039 #**		**0.0038 (114)**			0.52 (154)				**0.0036 (114)**			0.053 (154)			
Methoxychlor	µg/L	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.5 UJ	0.1 U	0.1 U	0.5 U	0.5 U							0.03 (51)							0.03 (51)			

Items in parentheses are footnotes

Table 16 - Ventura County Game Preserve South Boundary
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	Drainage Channel to Mugu Lagoon					South boundary of Ventura County Game Preserve				
		Sample ID / Sample Date									
		SW11-13	SW11-70				SW11-32	SW11-71			
		Feb '94	June '98	Aug '98	Nov '98	Feb '99	Feb '94	June '98	Aug '98	Nov '98	Feb '99
Polychlorinated biphenyls (PCBs)											
PCB-1232	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U
PCB-1242	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U
PCB-1248	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U
PCB-1254	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U
PCB-1260	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.2 U	0.2 U	0.5 U	1 U

Constituent	U.S. EPA National Recommended Ambient Water Quality Criteria																					
	For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
				CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Polychlorinated biphenyls (PCBs)																	
PCB-1232																	
PCB-1242		0.000064 # (173)		0.014 (114,173)				2			0.03 (114,173)				10		
PCB-1248																	
PCB-1254																	
PCB-1260																	

Data Sources: Navy 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
** Only pesticide detected was 4-4 DDT
\# Carcinogen
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect
J Estimated concentration. Analyte detected above Minimum Detection Limit (MDL), but below Method Report Limit (MRL)
NA Not analyzed
ND Not detected
R Data qualified as unusable
U Undetected at or above MDL/MRL
(1) Expressed as dissolved.
(2) Expressed as total recoverable.
(16) Toxicity to one species of fish after 2600 hours of exposure.
(20) For halomethanes.
(22) For chlorinated benzenes.
(23) Toxicity to a fish species exposed for 7.5 days.
(24) For dichlorobenzenes.
(27) For dichloroethylenes.
(28) For dichloropropanes.
(31) Adverse behavioral effects occur to one species.
(38) Toxicity to algae occurs.
(41) For carcinogenic polynuclear aromatic hydrocarbons.
(48) For chlorinated naphthalenes.
(51) This criterion is from a 1976 USEPA reference and also appears in the current list of recommended criteria published by USEPA. Reference: "Quality Criteria for Water" (Red Book) U.S. EPA 1976.
(52) For polynuclear aromatic hydrocarbons.
(53) For dinitrotoluenes.
(56) For nitrosamines.
(62) For pH between 6.5 and 9.0. Use of Water-Effects Ratios might be appropriate because: (1) aluminum is less toxic at higher pH and hardness but relationship not well quantified; (2) aluminum associated with clay particles may be less toxic than that associated with aluminum hydroxide particles; (3) many high quality waters in U.S. exceed 87 u as total or dissolved.
(82) A decrease in the number of algal cells occurs.
(83) Adverse effects on a fish species exposed for 168 days.
(88) For nitrophenols.
(94) Criterion refers to the inorganic form only.
(104) Based on endosulfan Reference: "Water Quality Advisory" US EPA March 1986, September 1987
(114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule published in Federal Register Vol. 57 No. 246 pp. 22228-22237
(115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(135) Expressed as total recoverable; may be converted to a value expressed as dissolved by multiplying the maximum criterion by 0.996 and the continuous criterion by 0.922.
(136) The Maximum Concentration is equal to 1/ [(f1/185.9) + (f2/12.83)], where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively.
(137) Expressed as free cyanide (as CN).
(139) The derivation of this criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
(140) Criterion derived from data for inorganic mercury (II), but is applied to total mercury. It will probably be underprotective if a substantial portion of mercury in the water column is methylmercury. Derivation of criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
(154) If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a Criteria Maximum Concentration (1-hour average). See Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
(172) Applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).
(173) Applies to total PCBs (e.g., sum of all congener or all isomer or homolog or Aroclor analyses).

Table 17 - Point Mugu Game Preserve Border
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	South boundary of Point Mugu Game Reserve						East boundary of Point Mugu Game Reserve						North of Pt Mugu Game Reserve	California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Sample ID / Sample Date													Human Health*	Salt Water Aquatic Life Protection			Human Health*	Marine Aquatic Life Protection				
		SW11-11	SW11-73				SW11-33	SW11-15	SW11-74				SW11-35			Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum		6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
		Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94	Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94											
Dissolved Metals																								
Aluminum	µg/L	30.1 U	NA	NA	NA	46.4 J	28.9 UJ	30.1 U	NA	NA	NA	14.4 J	134.0 J											
Antimony	µg/L	7.7 UJ	NA	NA	NA	4.0 U	66.7 UJ	4.9 UJ	NA	NA	NA	4.0 U	0 R		4,300 (2)				1,200					
Arsenic	µg/L	2.0 U	NA	NA	NA	4.7 UJ	13.3 UJ	2.0 U	NA	NA	NA	2.6 U	3.0 UJ			36 (1,142)	69 (1,142)			8			32	80
Barium	µg/L	32.4 J	NA	NA	NA	58.5 J	46.7 J	35.1 J	NA	NA	NA	37.9 J	34.4 J											
Beryllium	µg/L	0.4 U	NA	NA	NA	0.22 U	1.1 U	0.4 U	NA	NA	NA	0.22 U	1.1 U						0.033 #					
Cadmium	µg/L	2.9 U	NA	NA	NA	0.42 U	2.2 U	2.9 U	NA	NA	NA	0.42 U	2.2 U			9.3 (1,142)	42 (1,142)			1			4	10
Chromium (total)	µg/L	**3.2 J**	NA	NA	NA	3.6 UJ	4.4 U	3.1 U	NA	NA	NA	2.7 UJ	4.4 U							**2 (12)**			8 (12)	20 (12)
Chromium (VI)	µg/L	0.0	NA	NA	NA	0.0	0.0	0.0	NA	NA	NA	0.0	0.0			50 (1,142)	1100 (1,142)			2 (12)			8 (12)	20 (12)
Cobalt	µg/L	3.3 U	NA	NA	NA	0.91 UJ	6.7 U	3.3 U	NA	NA	NA	1.0 UJ	6.7 UJ											
Copper	µg/L	**3.3 U**	NA	NA	NA	**11.0**	6.7 UJ	3.3 U	NA	NA	NA	**12.3**	4.4 UJ			**3.1 (1,142)**	**4.8 (1,142)**			**3**			**12**	30
Cyanide	µg/L	0.0	NA	NA	NA	0.0	0.0	0.0	NA	NA	NA	0.0	0.0		220,000 (142)	1 (142,143)	1 (142,143)			1			4	10
Lead	µg/L	3.0 UJ	NA	NA	NA	1.6 U	11.1 UJ	3.0 UJ	NA	NA	NA	1.6 U	14.4 UJ			8.1 (1,142)	210 (1,142)			2			8	20
Magnesium	µg/L	178,000	NA	NA	NA	167,000	262,000 J	135,000	NA	NA	NA	150,000	53,000 J											
Manganese	µg/L	432.0	NA	NA	NA	676.0	330.0 J	96.8	NA	NA	NA	121.0	127.0											
Mercury (total)	µg/L	0.2 U	NA	NA	NA	0.11 U	**0.34 J**	0.2 U	NA	NA	NA	0.11 U	0.2 U		**0.051 (2,142)**					**0.04**			0.16	0.4
Molybdenum	µg/L	46.3 J	NA	NA	NA	34.9	41.1	94.7 J	NA	NA	NA	89.8	35.6											
Nickel	µg/L	6.8 U	NA	NA	NA	3.6 UJ	6.7 UJ	12.1 UJ	NA	NA	NA	**6.6 J**	**5.6 J**		4,600 (2,142)	8.2 (1,142)	74 (1,142)			**5**			20	50
Selenium	µg/L	0 R	NA	NA	NA	4.4 U	12.8 U	6.1 J	NA	NA	NA	5.3 J	3.7 UJ			71 (1,142)	290 (1,142)			15			60	150
Silver	µg/L	5.3 U	NA	NA	NA	**1.0 J**	0 R	5.3 U	NA	NA	NA	**1.8 J**	0 R				1.9 (1,142)			**0.7**			2.8	7
Thallium	µg/L	0 R	NA	NA	NA	2.6 U	10.0 UJ	0 R	NA	NA	NA	2.6 U	20.0 U		6.3 (2,143)				2					
Vanadium	µg/L	3.8 U	NA	NA	NA	0.64 U	7.8 UJ	3.8 U	NA	NA	NA	2.2 J	17.8 UJ											
Zinc	µg/L	1.5 U	NA	NA	NA	5.7 J	**24.4**	4.8 UJ	NA	NA	NA	9.4 UJ	20.0 UJ			81 (1,142)	90 (1,142)			**20**			80	200
Volatile Organic Compounds (VOCs)																								
Benzene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	0.5 U	NA		71 # (113)				5.9 #					
Bromomethane	µg/L	NA	2 U	2 UJ	2 U	2 U	NA	NA	2 U	2 UJ	2 U	2 U	NA		4,000				130 # (13)					
2-Butatone (Methyl ethyl ketone)		NA	2 U	2 U	2 U	2 UJ	NA	NA	2 U	2 U	3 UJ	2 U	NA											
Carbon tetrachloride	µg/L	NA	0.5 U	0.5 U	0.5 UJ	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA		4.4 # (113,143)				0.9 #					
Chlorobenzene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		21,000 (143)				570					
Chloroethane	µg/L	NA	2 U	2 UJ	2 U	2 U	NA	NA	2 U	2 UJ	2 U	2 U	NA											
Chloromethane	µg/L	NA	2 UJ	2 U	2 U	2 U	NA	NA	2 UJ	2 U	2 U	2 U	NA						130 # (13)					
1,1-Dichloroethane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA											
1,2-Dichloroethane	µg/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA		99 # (113,143)				28 #					
1,1-Dichloroethylene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		3.2 # (113,143)				0.9 #					
trans-1,2-Dichloroethylene	µg/L	NA	0	0	2 U	2 U	NA	NA	0	0	2 UJ	2 U	NA		140,000									
1,2-Dichloropropane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		39									
Ethylbenzene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		29,000 (143)				4,100					
2-Hexanone (Methyl n-butyl ketone)	µg/L	NA	2 U	2 UJ	2 UJ	2 U	NA	NA	2 U	2 UJ	2 UJ	2 U	NA											
Methylene chloride (Dichloromethane)	µg/L	NA	2 UJ	2 UJ	2 U	2 U	NA	NA	2 UJ	2 UJ	2 U	2 U	NA		1,600 # (113)				450 #					
4-Methyl-2-pentanol (Methyl isobutyl carbinol)	µg/L	NA	2 UJ	2 UJ	2 UJ	2 UJ	NA	NA	2 UJ	2 UJ	2 UJ	2 UJ	NA											
Tetrachloroethylene (PCE)	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	0.2 J	0.2 U	0.2 U	0.2 U	NA		8.85 # (113,143)				2 #					
Toluene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		20,0000				85,000					
1,1,1-Trichloroethane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA						540,000					
1,1,2-Trichloroethane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		42 # (113,143)				9.4 #					
Trichloroethylene (TCE)	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		81 # (113,143)				27 #					
Vinyl acetate	µg/L	NA	0	0	0	0	NA	NA	0	0	0	0	NA											
Vinyl chloride	µg/L	NA	0.5 UJ	0.5 UJ	0.5 U	0.5 U	NA	NA	0.5 UJ	0.5 UJ	0.5 U	0.5 U	NA		525 #(113,143)				36 #					
Xylene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA											
m-Xylene	µg/L	NA	0	0	0	0	NA	NA	0	0	0	0	NA											
o-Xylene	µg/L	NA	0	0	0	0	NA	NA	0	0	0	0	NA											

Items in parentheses are footnotes

Table 17 - Point Mugu Game Preserve Border
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	South boundary of Point Mugu Game Reserve						East boundary of Point Mugu Game Reserve					North of Pt Mugu Game Reserve	California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Sample ID / Sample Date												Human Health*	Salt Water Aquatic Life Protection			Human Health*	Marine Aquatic Life Protection				
		SW11-11	SW11-73				SW11-33	SW11-15	SW11-74				SW11-35		Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum		6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
		Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94	Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94										
Polynuclear Aromatic Hydrocarbons (PAHs																							
Acenaphthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	2,700									
Acenaphthylene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0					0.0088 # (33)					
Anthracene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	11,0000				0.0088 # (33)					
Benz(a)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	0.049 # (113)				0.0088 # (33)					
Benzo(b)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	0.049 # (113)				0.0088 # (33)					
Benzo(k)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 UJ	0.0	0.1 U	NA	NA	NA	0.0	0.049 # (113)				0.0088 # (33)					
Benzo(g,h,i)perylene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0					0.0088 # (33)					
Benzo(a)pyrene	µg/L	0.0	0.1 UJ	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	0.049				0.0088 # (33)					
Carbazole	µg/L	0.0	1.0 U	NA	NA	NA	10.0 UJ	0.0	1.0 U	NA	NA	NA	0.0										
4-Chloroaniline (p-Chloroaniline)	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0										
2-Chloronaphthalene	µg/L	10.0 U	1.0 U	NA	NA	NA	3.0 U	10.0 U	1.0 U	NA	NA	NA	3.0 U	4,300									
4-Chloro-3-methylphenol (4-Chloro-m-cresol)	µg/L	10.0 U	1.0 U	NA	NA	NA	3.0 U	10.0 U	1.0 U	NA	NA	NA	3.0 U						1 (87)			4 (87)	10 (87)
Chrysene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 UJ	0.0	0.1 U	NA	NA	NA	0.0	0.049 # (113)				0.0088 # (33)					
Dibenz(a,h)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	0.049 # (113)				0.0088 # (33)					
Dibenzofuran	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0										
1,2-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0	17,000				5,100 (77)					
1,4-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	5.0 U	0.0	1.0 U	NA	NA	NA	0.0	2,600				18 #					
2,4-Dimethylphenol	µg/L	10.0 U	1.0 U	NA	NA	NA	3.0 U	1.0 UJ	1.0 U	NA	NA	NA	3.0 U	2,300					30 (86)			120 (86)	300 (86)
2,4-Dinitrotoluene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0	9.1 # (113,143)				2.6 #					
Fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	370				15					
Fluorene	mg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	14,000				0.0088 # (33)					
Hexachlorobutadiene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0	50 # (113,143)				14 #					
Indeno(1,2,3-c,d)pyrene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	0.049 # (113)				0.0088 # (33)					
Isophorone	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0	600 # (113,143)				730 #					
2-Methylnaphthalene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0										
2-Methylphenol (o-Cresol)	µg/L	0.0	1.0 U	NA	NA	NA	3.0 U	0.0	1.0 U	NA	NA	NA	3.0 U						30 (86)			120 (86)	300 (86)
4-Methylphenol (p-Cresol)	µg/L	0.0	1.0 U	NA	NA	NA	3.0 U	0.0	1.0 U	NA	NA	NA	3.0 U						30 (86)			120 (86)	300 (86)
Naphthalene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0										
4-Nitrophenol	µg/L	50.0 U	5.0 U	NA	NA	NA	3.0 U	50.0 U	5.0 U	NA	NA	NA	3.0 U						30 (86)			120 (86)	300 (86)
n-Nitrosodipropylamine	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0UJ	NA	NA	NA	0.0	1.4				0.38 #					
Pentachlorophenol	µg/L	50.0 U	5.0 U	NA	NA	NA	3.0 U	50.0 U	3.0 UJ	NA	NA	NA	3.0 U	8.2 # (113)	7.9	13			1 (87)			4 (87)	10 (87)
Phenanthrene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0					0.0088 # (33)					
Phenol	µg/L	2.0 UJ	1.0 U	NA	NA	NA	3.0 U	10.0 U	1.0 U	NA	NA	NA	3.0 U	4,600,000					30 (86)			120 (86)	300 (86)
Pyrene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0	11,000				0.0088 # (33)					
1,2,4-Trichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0										
Pesticides																							
beta-BHC	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.046 # (113)					0.004 (43)			0.008 (43)	0.012 (43)
delta-BHC	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ						0.004 (43)			0.008 (43)	0.012 (43)
gamma-BHC (Lindane)	µg/L	0.05 U	0.01 U	0.003 J	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.15 J	0.05 U	0.05 UJ	0.063 # (113)			0.16		0.004 (43)			0.008 (43)	0.012 (43)
alpha-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.00059 # (113)	0.004 (114)		0.09	0.000023 # (81)					
gamma-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ										
DDD	µg/L	0.01 U	**0.02**	**0.02 J**	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.00084 # (113)				0.00017 # (50)					
DDE	µg/L	0.01 U	**0.05**	**0.02**	0.1 U	0.1 U	0.1 UJ	0.1 U	**0.01 J**	**0.004 J**	0.1 U	0.1 U	0.1 UJ	0.00059 # (113)				0.00017 # (50)					
DDT	µg/L	0.1 U	**0.02 J**	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 UJ	0.02 U	0.1 U	0.1 U	0.1 UJ	0.00059 # (113)	**0.001 (114)**		0.13	0.00017 # (50)					
Dieldrin	µg/L	0.1 U	0.02 U	**0.002 J**	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.00014 # (113)	**0.0019 (114)**		0.71	0.00004 #					
Endosulfan I	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
Endosulfan II	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	240 (115)	0.0087 (114,115)		0.034 (115)		0.009 (42)			0.018 (42)	0.027 (42)
Endosulfan sulfate	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	240					0.009 (42)			0.018 (42)	0.027 (42)
Endrin	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.81 (18)	0.0023 (114)		0.037		0.002			0.004	0.006
Endrin aldehyde	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.81									
Endrin ketone	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ										
Heptachlor	µg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ	0.00021 # (113)	0.0036 (114)		0.053	0.00005 #					
Heptachlor epoxide	µg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ	0.00011 # (113)	0.0036 (114)		0.053	0.00002 #					
Methoxychlor	µg/L	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.5 UJ										

Items in parentheses are footnotes

Table 17 - Point Mugu Game Preserve Border
Comparison of Surface Water Quality Constituents to California Water Quality Criteria

Constituent	Units	South boundary of Point Mugu Game Reserve						East boundary of Point Mugu Game Reserve					North of Pt Mugu Game Reserve	California Toxics Rule Criteria Enclosed Bays & Estuaries				California Ocean Plan					
		Sample ID / Sample Date												Human Health*	Salt Water Aquatic Life Protection			Human Health*	Marine Aquatic Life Protection				
		SW11-11	SW11-73				SW11-33	SW11-15	SW11-74				SW11-35		Continuous Concentration (4-Day Avg)	Maximum Concentration (1-Hour Avg)	Instantaneous Maximum		6-month Median	30-day Avg	7-Day Avg	Daily Maximum	Instantaneous Maximum
		Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94	Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94										
Polychlorinated biphenyls (PCBs)																							
PCB-1232	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	0.00017 # (113)	0.03 (114,116)			0.000019 # (118)					
PCB-1242	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ										
PCB-1248	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ										
PCB-1254	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ										
PCB-1260	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ										

Data Source: Navy 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

- * Aquatic organism consumption only
- ** Only pesticide detected was 4-4 DDT
- # Carcinogen
- J Estimated concentration. Analyte detected above Minimum Detection Limit (MDL), but below Method Report Limit (MRL)
- NA Not analyzed
- ND Not detected
- R Data qualified as unusable
- U Undetected at or above MDL/MRL
- (1) Expressed as dissolved.
- (2) Expressed as total recoverable.
- (12) Value developed for chromium (VI); may be applied to total chromium if valence unknown.
- (13) For sum of bromoform, bromomethane and chloromethane.
- (18) Applies separately to endrin and endrin aldehyde.
- (33) For sum of acenaphthylene, anthracene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene.
- (42) For endosulfan-alpha, endosulfan-beta and endosulfan sulfate.
- (43) For benzene hexachloride isomers.
- (50) For DDT, DDD, and DDE, in combination.
- (77) For 1,2- and 1-3-dichlorobenzenes.
- (81) For oxychlordane and alpha and gamma isomers of chlordane, chlordene and nonachlor.
- (86) For nonchlorinated phenolic compounds.
- (87) For chlorinated phenolic compounds.
- (113) Based on carcinogenicity at 1-in-a-million risk level.
- (114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule See Reference "National Toxics Rule" published in Federal Register, Volume 57, No. 246 pp. 60848-60923.
- (115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
- (116) Applies separately to Aroclors 1016, 1242, 1254, 1221, 1232, 1248, and 1260; based on carcinogenicity at 1-in-a-million risk level.
- (118) For the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.
- (142) Criteria do not apply to waters subject to water quality objectives in Tables III-2A and III-2B of the San Francisco Bay Regional Water Quality Control Board's 1986 Basin Plan. See Reference "California Toxic Rule" published in Federal Register, Volume 65, No, 97 pp. 31682-31719 and Volume 66, No. 30 pp. 9960-9962.
- (143) These criteria were promulgated for specific California waters in the National Toxics Rule, Reference 23.

Items in parentheses are footnotes

Table 18 - Point Mugu Game Preserve Border
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	South boundary of Point Mugu Game Preserve					East boundary of Point Mugu Game Preserve						North of Pt Mugu Game Preserve	U.S. EPA National Recommended Ambient Water Quality Criteria																
		Sample ID / Sample Date												For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
		SW11-11	SW11-73				SW11-33	SW11-15	SW11-74				SW11-35				Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
		Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94	Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Dissolved Metals																														
Aluminum	µg/L	30.1 U	NA	NA	NA	46.4 J	28.9 UJ	30.1 U	NA	NA	NA	14.4 J	134.0 J				87 (2,62)		750 (2,62)											
Antimony	µg/L	7.7 UJ	NA	NA	NA	4.0 U	66.7 UJ	4.9 UJ	NA	NA	NA	4.0 U	0 R	640 (2)							9,000	1,600	610 (38)							
Arsenic	µg/L	2.0 U	NA	NA	NA	4.7 UJ	13.3 UJ	2.0 U	NA	NA	NA	2.6 U	3.0 UJ		0.14 # (2,94)		150 (1)		340 (1)					36 (1)		69 (1)				
Barium	µg/L	32.4 J	NA	NA	NA	58.5 J	46.7 J	35.1 J	NA	NA	NA	37.9 J	34.4 J																	
Beryllium	µg/L	0.4 U	NA	NA	NA	0.22 U	1.1 U	0.4 U	NA	NA	NA	0.22 U	1.1 U								130	5.3								
Cadmium	µg/L	2.9 U	NA	NA	NA	0.42 U	2.2 U	2.9 U	NA	NA	NA	0.42 U	2.2 U				see Fig A-3 (1)	see Fig A-3 (1)						8.8 (1)	40 (1)					
Chromium (total)	µg/L	3.2 J	NA	NA	NA	3.6 UJ	4.4 U	3.1 U	NA	NA	NA	2.7 UJ	4.4 U																	
Chromium (VI)	µg/L	0.0	NA	NA	NA	0.0	0.0	0.0	NA	NA	NA	0.0	0.0				11 (1)		16 (1)					50 (1)		1,100 (1)				
Cobalt	µg/L	3.3 U	NA	NA	NA	0.91 UJ	6.7 U	3.3 U	NA	NA	NA	1.0 UJ	6.7 UJ																	
Copper	µg/L	3.3 U	NA	NA	NA	**11.0**	6.7 UJ	3.3 U	NA	NA	NA	**12.3**	4.4 UJ			1,000	see Fig A-4 (1)		see Fig A-4 (1)					**3.1 (1)**		**4.8 (1)**				
Cyanide	µg/L	0.0	NA	NA	NA	0.0	0.0	0.0	NA	NA	NA	0.0	0.0	1,6000			5.2 (137)		22 (137)					1 (137)		1 (137)				
Lead	µg/L	3.0 UJ	NA	NA	NA	1.6 U	11.1 UJ	3.0 UJ	NA	NA	NA	1.6 U	14.4 UJ				see Fig A-5 (1)		see Fig A-5 (1)					8.1 (1)		210 (1)				
Magnesium	µg/L	178,000	NA	NA	NA	167,000	262,000 J	135,000	NA	NA	NA	150,000	53,000 J																	
Manganese	µg/L	**432.0**	NA	NA	NA	**676.0**	**330.0 J**	**96.8**	NA	NA	NA	**121.0**	**127.0**	**100 (51)**		**50 (51)**														
Mercury (total)	µg/L	0.2 U	NA	NA	NA	0.11 U	0.34 J	0.2 U	NA	NA	NA	0.11 U	0.2 U				0.77 (1,140)		1.4 (1,140)					0.94 (1,140)		1.8 (1,140)				
Molybdenum	µg/L	46.3 J	NA	NA	NA	34.9	41.1	94.7 J	NA	NA	NA	89.8	35.6																	
Nickel	µg/L	6.8 U	NA	NA	NA	3.6 UJ	6.7 UJ	12.1 UJ	NA	NA	NA	6.6 J	5.6 J	4,600 (2)			see Fig A-6 (1)		see Fig A-6 (1)					8.2 (1)		74 (1)				
Selenium	µg/L	0 R	NA	NA	NA	4.4 U	12.8 U	**6.1 J**	NA	NA	NA	**5.3 J**	3.7 UJ	4,200 (2)			**5 (135)**		(135,136)					71 (1)		290 (1)				
Silver	µg/L	5.3 U	NA	NA	NA	1.0 J	0 R	5.3 U	NA	NA	NA	1.8 J	0 R							see Fig A-8 (1,154)							1.9 (1,154)			
Thallium	µg/L	0 R	NA	NA	NA	2.6 U	10.0 UJ	0 R	NA	NA	NA	2.6 U	20.0 U	0.47 (2)							1,400	40	20 (16)					2,130		
Vanadium	µg/L	3.8 U	NA	NA	NA	0.64 U	7.8 UJ	3.8 U	NA	NA	NA	2.2 J	17.8 UJ																	
Zinc	µg/L	1.5 U	NA	NA	NA	5.7 J	24.4	4.8 UJ	NA	NA	NA	9.4 UJ	20.0 UJ	26,000 (2)		5,000	see Fig A-9 (1)		see Fig A-9 (1)					81 (1)		90 (1)				
Volatile Organic Compounds (VOCs)																														
Benzene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	0.5 U	NA		51 #						5,300							5,100		700 (83)
Bromomethane	µg/L	NA	2 U	2 UJ	2 U	2 U	NA	NA	2 U	2 UJ	2 U	2 U	NA	1,500							11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
2-Butatone (Methyl ethyl ketone)		NA	2 U	2 U	2 U	2 UJ	NA	NA	2 U	2 U	3 UJ	2 U	NA																	
Carbon tetrachloride	µg/L	NA	0.5 U	0.5 U	0.5 UJ	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA		1.6 #						35,200							50,000	6,400 (20)	11,500 (20,82)
Chlorobenzene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA	1,600		20					250 (22)		50 (22,23)					160 (22)	129 (22)	
Chloroethane	µg/L	NA	2 U	2 UJ	2 U	2 U	NA	NA	2 U	2 UJ	2 U	2 U	NA																	
Chloromethane	µg/L	NA	2 UJ	2 U	2 U	2 U	NA	NA	2 UJ	2 U	2 U	2 U	NA								11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
1,1-Dichloroethane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA																	
1,2-Dichloroethane	µg/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA		37 #						11,8000	2,0000						11,3000		
1,1-Dichloroethylene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		7,100						11,000 (230)							224,000 (27)		
trans-1,2-Dichloroethylene	µg/L	NA	0	0	2 U	2 U	NA	NA	0	0	2 UJ	2 U	NA	1,0000														224,000 (27)		
1,2-Dichloropropane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		15 #						23,000 (28)	5,700 (28)						10,300 (28)	3,040 (28)	
Ethylbenzene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA	2,100							32,000							430		
2-Hexanone (Methyl n-butyl ketone)	µg/L	NA	2 U	2 UJ	2 UJ	2 U	NA	NA	2 U	2 UJ	2 UJ	2 U	NA																	
Methylene chloride (Dichloromethane)	µg/L	NA	2 UJ	2 UJ	2 U	2 U	NA	NA	2 UJ	2 UJ	2 U	2 U	NA		590 #						11,000 (20)							12,000 (20)	6,400 (20)	11,500 (20,82)
4-Methyl-2-pentanol (Methyl isobutyl carbinol)	µg/L	NA	2 UJ	2 UJ	2 UJ	2 UJ	NA	NA	2 UJ	2 UJ	2 UJ	2 UJ	NA																	
1,1,1,2-Tetrachloroethane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	0.2 J	0.2 U	0.2 U	0.2 U	NA								9,320 (47)									
1,1,2,2-Tetrachloroethane	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		4 #						9,320 (47)	2,400						9,020		
Tetrachloroethylene (PCE)	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		3.3 #						5280	840						10,200	450	
Toluene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA	15,000							17,500							6,300	5,000	
Trichloroethylene (TCE)	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA		30 #						45,000		21,900 (31)					2,000		
Vinyl acetate	µg/L	NA	0	0	0	0	NA	NA	0	0	0	0	NA																	
Vinyl chloride	µg/L	NA	0.5 UJ	0.5 UJ	0.5 U	0.5 U	NA	NA	0.5 UJ	0.5 UJ	0.5 U	0.5 U	NA		2.4 #															
Xylene	µg/L	NA	2 U	2 U	2 U	2 U	NA	NA	2 U	2 U	2 U	2 U	NA																	
m-Xylene	µg/L	NA	0	0	0	0	NA	NA	0	0	0	0	NA																	
o-Xylene	µg/L	NA	0	0	0	0	NA	NA	0	0	0	0	NA																	

Items in parentheses are footnotes

Table 18 - Point Mugu Game Preserve Border
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	South boundary of Point Mugu Game Preserve						East boundary of Point Mugu Game Preserve					North of Pt Mugu Game Preserve
		Sample ID / Sample Date											
		SW11-11	SW11-73				SW11-33	SW11-15	SW11-74				SW11-35
		Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94	Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94
Polynuclear Aromatic Hydrocarbons (PAHs													
Acenaphthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Acenaphthylene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Anthracene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Benz(a)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Benzo(b)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Benzo(k)fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 UJ	0.0	0.1 U	NA	NA	NA	0.0
Benzo(g,h,i)perylene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Benzo(a)pyrene	µg/L	0.0	0.1 UJ	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Carbazole		0.0	1.0 U	NA	NA	NA	10.0 UJ	0.0	1.0 U	NA	NA	NA	0.0
4-Chloroaniline (p-Chloroaniline)	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
2-Chloronaphthalene	µg/L	10.0 U	1.0 U	NA	NA	NA	3.0 U	10.0 U	1.0 U	NA	NA	NA	3.0 U
4-Chloro-3-methylphenol (4-Chloro-m-cresol)	µg/L	10.0 U	1.0 U	NA	NA	NA	3.0 U	10.0 U	1.0 U	NA	NA	NA	3.0 U
Chrysene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 UJ	0.0	0.1 U	NA	NA	NA	0.0
Dibenz(a,h)anthracene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Dibenzofuran	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
1,2-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
1,4-Dichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	5.0 U	0.0	1.0 U	NA	NA	NA	0.0
2,4-Dimethylphenol	µg/L	10.0 U	1.0 U	NA	NA	NA	3.0 U	1.0 UJ	1.0 U	NA	NA	NA	3.0 U
2,4-Dinitrotoluene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
Fluoranthene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Fluorene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Hexachlorobutadiene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
Indeno(1,2,3-c,d)pyrene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Isophorone	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
2-Methylnaphthalene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
2-Methylphenol (o-Cresol)	µg/L	0.0	1.0 U	NA	NA	NA	3.0 U	0.0	1.0 U	NA	NA	NA	3.0 U
4-Methylphenol (p-Cresol)	µg/L	0.0	1.0 U	NA	NA	NA	3.0 U	0.0	1.0 U	NA	NA	NA	3.0 U
Naphthalene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
4-Nitrophenol	µg/L	50.0 U	5.0 U	NA	NA	NA	3.0 U	50.0 U	5.0 U	NA	NA	NA	3.0 U
n-Nitrosodipropylamine	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0UJ	NA	NA	NA	0.0
Pentachlorophenol	µg/L	50.0 U	5.0 U	NA	NA	NA	3.0 U	50.0 U	3.0 UJ	NA	NA	NA	3.0 U
Phenanthrene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
Phenol	µg/L	2.0 UJ	1.0 U	NA	NA	NA	3.0 U	10.0 U	1.0 U	NA	NA	NA	3.0 U
Pyrene	µg/L	0.0	0.1 U	NA	NA	NA	10.0 U	0.0	0.1 U	NA	NA	NA	0.0
1,2,4-Trichlorobenzene	µg/L	0.0	1.0 U	NA	NA	NA	10.0 U	0.0	1.0 U	NA	NA	NA	0.0
Pesticides													
beta-BHC	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ
delta-BHC	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ
gamma-BHC (Lindane)	µg/L	0.05 U	0.01 U	0.003 J	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.15 J	0.05 U	0.05 UJ
alpha-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ
gamma-Chlordane	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ
DDD	µg/L	0.01 U	**0.02**	**0.02 J**	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ
DDE	µg/L	0.01 U	**0.05**	**0.02**	0.1 U	0.1 U	0.1 UJ	0.1 U	**0.01 J**	**0.004 J**	0.1 U	0.1 U	0.1 UJ
DDT	µg/L	0.1 U	**0.02 J**	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 UJ	0.02 U	0.1 U	0.1 U	0.1 UJ
Dieldrin	µg/L	0.1 U	0.02 U	**0.002 J**	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ
Endosulfan I	µg/L	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 UJ
Endosulfan II	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ
Endosulfan sulfate	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ
Endrin	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ
Endrin aldehyde	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ
Endrin ketone	µg/L	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.02 U	0.02 U	0.1 U	0.1 U	0.1 UJ
Heptachlor	µg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ
Heptachlor epoxide	µg/L	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ	0.05 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 UJ
Methoxychlor	µg/L	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.1 U	0.1 U	0.5 U	0.5 U	0.5 UJ

Constituent	U.S. EPA National Recommended Ambient Water Quality Criteria														
	For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
				Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Polynuclear Aromatic Hydrocarbons (PAHs																	
Acenaphthene	990		20					1700		520 (38)					970	710	500 (38)
Acenaphthylene															300 (52)		
Anthracene	40,000														300 (52)		
Benz(a)anthracene		0.018 # (41)													300 (52)		
Benzo(b)fluoranthene		0.018 # (41)													300 (52)		
Benzo(k)fluoranthene		0.018 (41)													300 (52)		
Benzo(g,h,i)perylene															300 (52)		
Benzo(a)pyrene		0.018 # (41)													300 (52)		
Carbazole																	
4-Chloroaniline (p-Chloroaniline)																	
2-Chloronaphthalene	1,600							1,600 (48)							7.5 (48)		
4-Chloro-3-methylphenol (4-Chloro-m-cresol)			3,000					30									
Chrysene		0.018 # (41)													300 (52)		
Dibenz(a,h)anthracene		0.018 # (41)													300 (52)		
Dibenzofuran																	
1,2-Dichlorobenzene	1,300							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
1,4-Dichlorobenzene	190							1,120 (24)	763 (24)	50 (22,23)					1,970 (24)	129 (22)	
2,4-Dimethylphenol	850		400					2120									
2,4-Dinitrotoluene		3.4 #						330 (53)	230 (53)						590 (53)		370 (53,82)
Fluoranthene	140							3,980							40	16	
Fluorene	5,300														300 (52)		
Hexachlorobutadiene		18 #						90	9.3						32		
Indeno(1,2,3-c,d)pyrene		0.018 # (41)													300 (52)		
Isophorone		960 #						117,000							1,2900		
2-Methylnaphthalene																	
2-Methylphenol (o-Cresol)																	
4-Methylphenol (p-Cresol)																	
Naphthalene								2,300	620						2,350		
4-Nitrophenol								230 (88)		150 (38,88)					4,850 (88)		
n-Nitrosodipropylamine		0.15 #						5,850 (56)							3,300,000 (56)		
Pentachlorophenol		3 #	30	see Figure A-7		see Figure A-7					7.9		13				
Phenanthrene															300 (52)		
Phenol	1,700,000		300					10,200	2,560						5,800		
Pyrene	4,000														300 (52)		
1,2,4-Trichlorobenzene	70							250 (22)		50 (22,23)					160 (22)	129 (22)	
Pesticides																	
beta-BHC		0.017 #															
delta-BHC																	
gamma-BHC (Lindane)	1.8			0.08 (114)		0.95								0.16 (154)			
alpha-Chlordane		0.00081 #		0.0043 (114)			2.4 (154)				0.004 (114)			0.09 (154)			
gamma-Chlordane																	
DDD		**0.00031 #**						0.6							3.6		
DDE		**0.00022 #**						1,050							14		
DDT		**0.00022 #**		**0.001 (114,172)**			1.1 (154,172)				**0.001 (114,172)**			**0.13 (154,172)**			
Dieldrin		**0.000054 #**		**0.056 (139)**		0.24					**0.0019 (114)**			0.71 (154)			
Endosulfan I	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
Endosulfan II	89 (115)			0.056 (114,115)			0.22 (115)				0.0087 (114,115)			0.034 (115)			
Endosulfan sulfate	89				0.056 (104)							0.0087 (104)					
Endrin	0.06			0.036 (139)		0.086					0.0023 (114)			0.037 (154)			
Endrin aldehyde	0.3																
Endrin ketone																	
Heptachlor		0.000079 #		0.0038 (114)			0.52 (154)				0.0036 (114)			0.053 (154)			
Heptachlor epoxide		0.000039 #		0.0038 (114)			0.52 (154)				0.0036 (114)			0.053 (154)			
Methoxychlor							0.03 (51)							0.03 (51)			

Items in parentheses are footnotes

Table 18 - Point Mugu Game Preserve Border
Comparison of Surface Water Quality to U.S. EPA Water Quality Criteria

Constituent	Units	South boundary of Point Mugu Game Preserve					East boundary of Point Mugu Game Preserve						North of Pt Mugu Game Preserve
		Sample ID / Sample Date											
		SW11-11	SW11-73				SW11-33	SW11-15	SW11-74				SW11-35
		Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94	Feb '94	Jun '98	Aug '98	Nov '98	Feb '99	Feb '94
Polychlorinated biphenyls (PCBs													
PCB-1232	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ
PCB-1242	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ
PCB-1248	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ
PCB-1254	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ
PCB-1260	µg/L	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ	1 U	0.2 U	0.2 U	0.5 U	1 U	1 UJ

Constituent	U.S. EPA National Recommended Ambient Water Quality Criteria																
	For Human Health and Welfare Protection			For Fresh Water Aquatic Life Protection							For Salt Water Aquatic Life Protection						
				Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)			Recommended Criteria				Toxicity Information (Lowest Observed Effect Level)		
	Non-Cancer Health Effects*	One-in-a-Million Cancer Risk Estimate*	Taste & Odor or Welfare	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other	CCC	24-hr Avg	CMC	Instantaneous Maximum	Acute	Chronic	Other
Polychlorinated biphenyls (PCBs																	
PCB-1232																	
PCB-1242		0.000064 # (173)		0.014 (114,173)				2			0.03 (114,173)				10		
PCB-1248																	
PCB-1254																	
PCB-1260																	

Data Sources: Navy 1994
Criteria Source: RWQCB 2003

Legend

- No Criteria
- Criteria are dependent on site-specific factors
- Criteria Exceedance

Footnotes

* Aquatic organism consumption only
** Only pesticide detected was 4-4 DDT
\# Carcinogen
CCC Criteria Continuous Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect
CMC Criteria Maximum Concentration - Estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect
J Estimated concentration. Analyte detected above Minimum Detection Limit (MDL), but below Method Report Limit (MRL)
NA Not analyzed
ND Not detected
R Data qualified as unusable
U Undetected at or above MDL/MRL
(1) Expressed as dissolved.
(2) Expressed as total recoverable.
(16) Toxicity to one species of fish after 2600 hours of exposure.
(20) For halomethanes.
(22) For chlorinated benzenes.
(23) Toxicity to a fish species exposed for 7.5 days.
(24) For dichlorobenzenes.
(27) For dichloroethylenes.
(28) For dichloropropanes.
(31) Adverse behavioral effects occur to one species.
(38) Toxicity to algae occurs.
(41) For carcinogenic polynuclear aromatic hydrocarbons.
(47) For tetrachloroethanes.
(48) For chlorinated naphthalenes.
(51) This criterion is from a 1976 USEPA reference and also appears in the current list of recommended criteria published by USEPA. Reference: "Quality Criteria for Water" (Red Book) U.S. EPA 1976.
(52) For polynuclear aromatic hydrocarbons.
(53) For dinitrotoluenes.
(56) For nitrosamines.
(62) For pH between 6.5 and 9.0. Use of Water-Effects Ratios might be appropriate because: (1) aluminum is less toxic at higher pH and hardness but relationship not well quantified; (2) aluminum associated with clay particles may be less toxic than that associated with aluminum hydroxide particles; (3) many high quality waters in U.S. exceed 87 ug/L as total or dissolved.
(82) A decrease in the number of algal cells occurs.
(83) Adverse effects on a fish species exposed for 168 days.
(88) For nitrophenols.
(94) Criterion refers to the inorganic form only.
(104) Based on endosulfan Reference: "Water Quality Advisory" US EPA March 1986, September 1987
(114) Developed as 24-hour average usinig 1980 USEPA Guidelines; but applied as 4-day average in the National Toxics Rule published in Federal Register Vol. 57 No. 246 pp. 22228-22237
(115) Criterion most appropriately applied to the sum of alpha-Endosulfan and beta-Endosulfan. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(135) Expressed as total recoverable; may be converted to a value expressed as dissolved by multiplying the maximum criterion by 0.996 and the continuous criterion by 0.922.
(136) The Maximum Concentration is equal to 1/ [(f1/185.9) + (f2/12.83)], where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively.
(137) Expressed as free cyanide (as CN).
(139) The derivation of this criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047.
(140) Criterion derived from data for inorganic mercury (II), but is applied to total mercury. It will probably be underprotective if a substantial portion of mercury in the water column is methylmercury. Derivation of criterion did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels. Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047..
(154) If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a Criteria Maximum Concentration (1-hour average). See Reference: "National Recommended Water Quality Criteria" U.S. EPA Office of Water. November 2002. EPA 822-R-02-047
(172) Applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).
(173) Applies to total PCBs (e.g., sum of all congener or all isomer or homolog or Aroclor analyses).

Items in parentheses are footnotes