Table U-17.
Summary of Surface Water Screening Values for Ecological Communities

CPEC	Selected Screening Values for Protection of Aquatic Life (µg/L)		Amphibian Screening Values (µg/L)		Lowest Chronic Values for Aquatic Plants in Freshwater[c] (µg/L)		NAWQC for Aquatic Life (acute/CMC)[b] (µg/L)	
Inorganic Compounds								
Antimony	30	c,h	3	k	610		-	
Arsenic	150	a,b	0.4	k	48		340	
Barium	4.0	c	2.3	j	15,000,000	s	-	
Beryllium	0.66	c	0.032	k	100,000		-	
Cadmium	3	a	0.0158	k	2		3.0	q
Chromium	250	a	0.3	l	397		794.2	q
Cobalt	23	c	0.5	k	60	e	-	
Copper	13.0	a	0.01	j	1		19.7	q
Lead	3.9	a,b	0.4	l	500		100.1	q
Manganese	120	c	0.5	j	4,000	e	-	
Mercury	0.77	b	0.01	l	5		1.4	
Molybdenum	370	c	0.4	j	500	e	-	
Nickel	73	a,b	0.02	j	5		659.8	q
Selenium	5.0	a,b	0.9	l	100		290	r
Silver	0.36	c	0.041	k	30		6.5	q
Thallium	12	c	0.1	j	100		-	
Tin	73	c	0.02	j	100,000	e	-	
Vanadium	20	c	0.03	j	200	e	-	
Zinc	170	a,b	0.047	k	30		165.2	q

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Volatile Organic Compounds (VOCs)								
1,1-Dichloroethane	47	c	0.2	j	-		-	
1,2-Dibromoethane (EDB)	1400	g	-		-		-	
Acetone	1500	c	19.8	l	122	l	-	
Acetonitrile	75.5	i,o	116	k	-		-	
Carbon disulfide	0.92	c	1.2	l	-		-	
Ethylene glycol	2000	n	3260	l	546,000	l	-	
Methyl isobutyl ketone (MIBK)	170	c	-		410	l	-	
Methylene chloride	2200	c	122	j	-		-	
Nonanal	-		-		-		-	
Propanal	-		-		7,960	l	-	
Trichloroethylene	360	g	450	k	317	l	-	
Semi Volatile Organic Compounds (SVOCs)								
Bis(2-chloroethyl) ether	61	g	-		-		-	
Bis(2-ethylhexyl)phthalate	3.0	c,h	38.8	l	3200	l	-	
N-Nitrosodiethylamine	-		-		-		-	
N-Nitrosodipropylamine	210	m, c	-		-		-	
N-Nitrosopyrrolidine	-		-		-		-	
Dioxin/Furans								
Total Avian TEQ	NA		-		NA		-	
Total Mammalian TEQ	NA		-		NA		-	
Polycyclic Aromatic Hydrocarbons (PAHs)								
Total LMW PAH	12	c,f	21	k,f	33,000	c,f	-	
Total HMW PAH	0.014	c,d	870	l,d	850	l,d	-	

µg/L	Micrograms per liter.
CMC	criterion maximum concentration
CPEC	Chemicals of potential ecological concern.
LC10	Lethal concentration for ten percent of sample population.
-	Not available.
NA	Not applicable.
NAWQC	National Ambient Water Quality Criteria
TEQ	Toxicity equivalent.
Total LMW PAHs	Total low molecular weight polycyclic aromatic hydrcarbons
Total HMW PAHs	Total high molecular weight polycyclic aromatic hydrcarbons

[a] From USEPA Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (USEPA, 2006b) unless otherwise noted. Values for cadmium, chromium, copper, lead, nickel, and zinc were adjusted using the site-specific median hardness value of 150 mg/L (CVRWQCB, 2007).

[b] From USEPA National Recommended Water Quality Criteria (USEPA, 2006c). Values for cadmium, chromium, copper, lead, nickel, and zinc were adjusted using the site-specific median hardness value of 150 mg/L (CVRWQCB, 2007).

[c] From Suter and Tsao (1996).

[d] Benzo(a)pyrene used as a surrogate.

[e] From Efroymson et al. (1997a).

[f] Napthalene used as a surrogate.

[g] From Freshwater Aquatic Habitat Goals (SFRWQCB, 2005)

[h] From Recommended Numerical Limits to Translate Water Quality Objectives (CVRWQCB, 2007).

[i] USEPA Region 4 Supplement to RAGS; Chronic Screening Values for Fresh Water (USEPA, 2001b).

[j] LC10 value from Sparling et. al. (2000)/ UF of 10.

[k] LC50 value from Pauli et al. (2000) / UF of 100.

[l] Derived from ECOTOX data as described in Attachement 2.

[m] N-nitrosodiphenylamine used as a surrogate.

[n] Water Management Policies Guidelines Provincial Water Quality Objectives (MOEE, 1999).

[p] Acrylonitrile used as a surrogate.

[q] CMC expressed as a function of hardness (mg/L) in the water column. Value corresponds to a site-specific median hardness of 150 mg/L. Criteria values calculated from the following: CMC (dissolved) = exp{mA [ln(hardness)]+ bA} (CF), and the parameters specified in Appendix B- Parameters for Calculating Freshwater Dissolved Metals Criteria that are Hardness-Dependent.

[r] Value for selenium is the saltwater CMC with the assumption that saltwater and freshwater fish are equally sensitive.

[s] From Concise International Chemical Assessment Document 33 (2001).