

## Sediment PCLs

### Direct Human Contact Sediment PCLs

Under TRRP (§350.75(i)(15)), sediment PCLs must be established when the TCEQ determines that relevant exposure pathways are complete or are reasonably anticipated to be complete for a given chemical of concern (COC). With sediment contamination, the following human health exposure pathways are assumed to be potentially relevant: incidental ingestion of sediment, dermal contact with sediment, and transfer of COCs from sediment to the tissue of finfish/shellfish within a water body.

Direct human contact sediment PCLs which address the ingestion/dermal contact with sediment pathways are available, and are described in more detail below. Refer to *Determining PCLs for Surface Water and Sediment* (RG-366/TRRP-24) for a complete discussion of the basis and application of these PCLs. Although the bioconcentration of a contaminant from water into fish/shellfish (and subsequent ingestion by humans) may be addressed in setting surface water PCLs, sediment contamination may also act as a continuing source of contamination to the water column, or contribute to the accumulation of COCs in fish/shellfish tissue through direct biological contact with impacted sediment. Thus, human exposures through the consumption of contaminated fish/shellfish may also be a pathway of concern when addressing sediment contamination, and the direct human contact PCLs cannot be assumed to be protective of transfers to fish/shellfish tissue. These direct human contact sediment PCLs are also clearly not intended to be relevant to ecological receptors. Refer to *Determining PCLs for Surface Water and Sediment* and *Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas* (RG-263) for information on how to appropriately assess ecological exposures and risks.

### Summary of PCL Development

It is anticipated that individuals may potentially be exposed to COCs in sediment through incidental ingestion of and dermal contact with sediment while wading/recreating. Residential contact equations RBEL-2 (dermal contact with COCs in soil) and RBEL-3 (ingestion of COCs in soil) (see Figure 30 TAC §350.74(a)) were followed to calculate risks/hazards for the sediment exposure pathway. TRRP assumptions were generally applied in calculating the sediment PCLs. However, for several critical parameters, sediment-specific exposure assumptions were necessary as detailed in RG-366/TRRP-24.

Pathway-specific technical details are handled in a manner consistent with the evaluation of TRRP soil exposure pathways. For example, dermal exposure to sediment is not evaluated for those COCs which are defined as volatile organic compounds. Also, certain sediment PCLs (e.g., lead, cadmium, dioxins/furans) are based on alternative chemical-specific technical approaches that are described more fully in TRRP. Although certain site-specific factors may differ among waterbodies, TCEQ recommends that these PCLs only be adjusted when the underlying assumptions are clearly not appropriate for a given waterbody (e.g., documented observations of the actual frequency of recreational contact with sediment).

Note that the sediment PCL table will be updated periodically. At the least, the values will be updated annually in March along with the main PCL and RBEL tables.

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS				Carcinogenic			Noncarcinogenic		
		Tot <sup>2</sup> Sed <sub>Comb</sub> (mg/kg)	note <sup>3</sup>		Tot <sup>2</sup> Sed <sub>Comb</sub> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	Tot <sup>2</sup> Sed <sub>Comb</sub> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)
Acenaphthene	83-32-9	7.4E+03	n	---	---	---	7.4E+03	4.4E+04	8.9E+03	
Acenaphthylene	208-96-8	7.4E+03	n	---	---	---	7.4E+03	4.4E+04	8.9E+03	
Acetaldehyde	75-07-0	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Acetate, 2-ethoxyethanol	111-15-9	1.2E+04	n	---	---	---	1.2E+04	1.2E+04	---	
Acetate, isoamyl	123-92-2	5.3E+04	n	---	---	---	5.3E+04	5.3E+04	---	
Acetate, isobutyl	110-19-0	3.5E+04	n	---	---	---	3.5E+04	3.5E+04	---	
Acetate, sec-butyl	105-46-4	3.5E+04	n	---	---	---	3.5E+04	3.5E+04	---	
Acetic acid*	64-19-7	---	---	---	---	---	---	---	---	
Acetone (2-propanone)	67-64-1	6.6E+05	n	---	---	---	6.6E+05	6.6E+05	---	
Acetone cyanohydrin	75-86-5	1.2E+02	n	---	---	---	1.2E+02	5.9E+02	1.5E+02	
Acetonitrile	75-05-8	2.4E+04	n	---	---	---	2.4E+04	2.4E+04	---	
Acetophenone	98-86-2	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Acetylaminofluorene, 2-	53-96-3	3.7E+00	c	3.7E+00	1.4E+01	5.1E+00	---	---	---	
Acifluorfen, sodium	62476-59-9	2.0E+03	n	---	---	---	2.0E+03	9.6E+03	2.5E+03	
Acridine	260-94-6	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Acrolein	107-02-8	3.7E+02	n	---	---	---	3.7E+02	3.7E+02	---	
Acrylamide	79-06-1	3.2E+00	c	3.2E+00	1.2E+01	4.3E+00	3.1E+01	1.5E+02	3.9E+01	
Acrylic acid (propenoic acid)	79-10-7	3.7E+05	n	---	---	---	3.7E+05	3.7E+05	---	
Acrylonitrile	107-13-1	1.0E+02	c	1.0E+02	1.0E+02	---	7.3E+02	7.3E+02	---	
Adipic acid (hexanedioic acid)	124-04-9	7.7E+05	n	---	---	---	7.7E+05	1.0E+06	9.7E+05	
Alachlor	15972-60-8	1.8E+02	c	1.8E+02	6.8E+02	2.4E+02	1.5E+03	7.3E+03	1.9E+03	
Aldicarb	116-06-3	1.5E+02	n	---	---	---	1.5E+02	7.3E+02	1.9E+02	
Aldicarb sulfone	1646-88-4	1.5E+02	n	---	---	---	1.5E+02	7.3E+02	1.9E+02	
Aldrin	309-00-2	8.4E-01	c	8.4E-01	3.2E+00	1.1E+00	4.6E+00	2.2E+01	5.8E+00	
Allyl alcohol	107-18-6	3.7E+03	n	---	---	---	3.7E+03	3.7E+03	---	
Allyl chloride	107-05-1	7.3E+03	n	---	---	---	7.3E+03	7.3E+03	---	
Aluminum	7429-90-5	1.5E+05	n	---	---	---	1.5E+05	7.3E+05	1.9E+05	
Ametryn	834-12-8	1.4E+03	n	---	---	---	1.4E+03	6.6E+03	1.7E+03	
Aminobiphenyl, 4- (1,1-biphenyl-4-amine)	92-67-1	2.3E+00	c	2.3E+00	8.9E+00	3.1E+00	---	---	---	
Amino-2,6-dinitrotoluene, 4-	19406-51-0	2.6E+01	n	1.4E+03	5.4E+03	1.9E+03	2.6E+01	1.2E+02	3.2E+01	
Amino-4,6-dinitrotoluene, 2-	35572-78-2	2.6E+01	n	1.4E+03	5.4E+03	1.9E+03	2.6E+01	1.2E+02	3.2E+01	
Aminopyridine, 4-	504-24-5	3.1E+00	n	---	---	---	3.1E+00	1.5E+01	3.9E+00	
Ammonia	7664-41-7	---	---	---	---	---	---	---	---	
Ammonium polyphosphate*	68333-79-9	---	---	---	---	---	---	---	---	
Ammonium salts*	NA	---	---	---	---	---	---	---	---	
Aniline	62-53-3	1.1E+03	n	2.5E+03	9.6E+03	3.4E+03	1.1E+03	5.1E+03	1.4E+03	
Anthracene	120-12-7	3.7E+04	n	---	---	---	3.7E+04	2.2E+05	4.5E+04	
Anthraquinone, 9,10-	84-65-1	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Antimony	7440-36-0	8.3E+01	n	---	---	---	8.3E+01	2.9E+02	1.2E+02	
Aramite	140-57-8	5.7E+02	c	5.7E+02	2.2E+03	7.7E+02	7.7E+03	3.7E+04	9.7E+03	
Arsenic	7440-38-2	1.1E+02	n	2.2E+02	4.7E+02	4.3E+02	1.1E+02	2.8E+02	1.9E+02	
Arsine	7784-42-1	---	---	---	---	---	---	---	---	
Asbestos	1332-21-4	---	---	---	---	---	---	---	---	
Atrazine	1912-24-9	6.4E+01	c	6.4E+01	2.5E+02	8.7E+01	5.4E+03	2.6E+04	6.8E+03	
Azinphos-methyl (guthion)	86-50-0	2.3E+02	n	---	---	---	2.3E+02	1.1E+03	2.9E+02	
Azobenzene	103-33-3	1.3E+02	c	1.3E+02	5.0E+02	1.7E+02	---	---	---	
Barium	7440-39-3	2.3E+04	n	---	---	---	2.3E+04	1.5E+05	2.7E+04	
Bayleton	43121-43-3	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Benefin (benfluralin)	1861-40-1	4.6E+04	n	---	---	---	4.6E+04	2.2E+05	5.8E+04	
Benomyl	17804-35-2	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Benz-a-anthracene	56-55-3	1.6E+01	c	1.6E+01	7.5E+01	2.0E+01	---	---	---	
Benzaldehyde	100-52-7	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Benzene	71-43-2	9.9E+02	c	9.9E+02	9.9E+02	---	2.9E+03	2.9E+03	---	
Benzenedicarbonitrile, 1,3-	626-17-5	9.2E+02	n	---	---	---	9.2E+02	4.4E+03	1.2E+03	
Benzenethiol	108-98-5	7.3E+00	n	---	---	---	7.3E+00	7.3E+00	---	
Benzdine	92-87-5	6.2E+02	c	6.2E-02	2.4E-01	8.4E-02	4.6E+02	2.2E+03	5.8E+02	
Benzo-a-pyrene	50-32-8	1.6E+00	c	1.6E+00	7.5E+00	2.0E+00	---	---	---	
Benzo-b-fluoranthene	205-99-2	1.6E+01	c	1.6E+01	7.5E+01	2.0E+01	---	---	---	
Benzo-j-fluoranthene	205-82-3	1.6E+01	c	1.6E+01	7.5E+01	2.0E+01	---	---	---	
Benzo-e-pyrene	192-97-2	3.7E+03	n	---	---	---	3.7E+03	2.2E+04	4.5E+03	
Benzo-g,h,i-perylene	191-24-2	3.7E+03	n	---	---	---	3.7E+03	2.2E+04	4.5E+03	
Benzoic acid	65-85-0	6.1E+05	n	---	---	---	6.1E+05	1.0E+06	7.7E+05	
Benzo-k-fluoranthene	207-08-9	1.6E+02	c	1.6E+02	7.5E+02	2.0E+02	---	---	---	
Benzophenone	119-61-9	1.0E+03	n	---	---	---	1.0E+03	4.9E+03	1.3E+03	
Benzotrithloride	98-07-7	1.1E+00	c	1.1E+00	4.2E+00	1.5E+00	---	---	---	
Benzoyl peroxide	94-36-0	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Benzyl alcohol	100-51-6	4.6E+04	n	---	---	---	4.6E+04	2.2E+05	5.8E+04	
Benzyl chloride	100-44-7	3.2E+02	c	3.2E+02	3.2E+02	---	---	---	---	
Benzyl dichloride	98-87-3	8.4E+01	c	8.4E+01	3.2E+02	1.1E+02	---	---	---	
Beryllium	7440-41-7	2.7E+01	n	---	---	---	2.7E+01	1.5E+03	2.7E+01	
Biphenyl, 1,1-	92-52-4	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Biquinoline, 2,2'-	119-91-5	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Bis (2-chloroethoxy) methane	111-91-1	1.3E+01	c	1.3E+01	5.0E+01	1.7E+01	---	---	---	
Bis (2-chloroethyl) ether	111-44-4	5.0E+01	c	5.0E+01	5.0E+01	---	---	---	---	
Bis (2-chloroisopropyl) ether	108-60-1	2.0E+02	c	2.0E+02	7.8E+02	2.7E+02	6.1E+03	2.9E+04	7.7E+03	
Bis (2-chloromethyl) ether	542-88-1	2.5E-01	c	2.5E-01	2.5E-01	---	---	---	---	

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Chemical of Concern	CAS	Carcinogenic			Noncarcinogenic				
		Tot <sup>2</sup> Sed <sub>Comb</sub> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	Tot <sup>2</sup> Sed <sub>Comb</sub> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)		
Bis (2-ethyl-hexyl) phthalate	117-81-7	2.4E+02	c	2.4E+02	3.9E+03	2.6E+02	7.0E+02	1.5E+04	7.3E+02
Bismuth	7440-69-9	1.3E+05	n	---	---	---	1.3E+05	3.7E+05	1.9E+05
Bisphenol A	80-05-7	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03
Boron	7440-42-8	1.1E+05	n	---	---	---	1.1E+05	1.5E+05	3.9E+05
Bromacil	314-40-9	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04
Bromobenzene	108-86-1	1.5E+04	n	---	---	---	1.5E+04	1.5E+04	---
Bromo-2-chloroethane, 1-	107-04-0	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---
Bromodichloromethane	75-27-4	8.8E+02	c	8.8E+02	8.8E+02	---	1.5E+04	1.5E+04	---
Bromoform	75-25-2	6.9E+03	c	6.9E+03	6.9E+03	---	1.5E+04	1.5E+04	---
Bromomethane (methyl bromide)	74-83-9	1.0E+03	n	---	---	---	1.0E+03	1.0E+03	---
Bromophenyl phenylether, 4-	101-55-3	9.5E-01	c	9.5E-01	3.6E+00	1.3E+00	---	---	---
Butadiene, 1,3-	106-99-0	---	---	---	---	---	---	---	---
Butadiene, 2-methyl-1,3- (isoprene)	78-79-5	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Butanal (butyraldehyde)	123-72-8	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Butane, 2,3-dimethyl-	79-29-8	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Butanoic acid (butyric acid)	107-92-6	7.7E+04	n	---	---	---	7.7E+04	3.7E+05	9.7E+04
Butanol, 2-	78-92-2	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---
Butanol, 2-methyl-2-	75-85-4	7.3E+03	n	---	---	---	7.3E+03	7.3E+03	---
Butanol, n-	71-36-3	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---
Butene, 1-	106-98-9	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Butene, cis-2-	590-18-1	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Butene, trans-2-	624-64-6	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Butoxy ethanol, 2- (Ethylene glycol monobutyl ether; EGBE)	111-76-2	7.7E+04	n	---	---	---	7.7E+04	3.7E+05	9.7E+04
Butyl acetate	123-86-4	1.0E+05	n	---	---	---	1.0E+05	1.0E+05	---
Butyl acrylate	141-32-2	6.6E+03	n	---	---	---	6.6E+03	6.6E+03	---
Butyl benzyl phthalate	85-68-7	3.1E+04	n	---	---	---	3.1E+04	1.5E+05	3.9E+04
Butylate	2008-41-5	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03
Butylbenzene, n-	104-51-8	6.1E+03	n	---	---	---	6.1E+03	2.9E+04	7.7E+03
Butylbenzene, sec-	135-98-8	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---
Butylbenzene, tert-	98-06-6	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---
Butyl ether, n- (dibutyl ether)	142-96-1	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---
Cacodylic acid	75-60-5	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02
Cadmium	7440-43-9	1.1E+03	n	---	---	---	1.1E+03	2.3E+03	2.1E+03
Calcium*	7440-70-2	---	---	---	---	---	---	---	---
Caprolactam	105-60-2	7.7E+04	n	---	---	---	7.7E+04	3.7E+05	9.7E+04
Captan	133-06-2	4.1E+03	c	4.1E+03	1.6E+04	5.5E+03	2.0E+04	9.6E+04	2.5E+04
Carbaryl	63-25-2	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04
Carbazole	86-74-8	7.1E+02	c	7.1E+02	2.7E+03	9.6E+02	---	---	---
Carbofuran	1563-66-2	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02
Carbon disulfide	75-15-0	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---
Carbon tetrachloride	56-23-5	4.2E+02	c	4.2E+02	4.2E+02	---	5.1E+02	5.1E+02	---
Carbophenothion	786-19-6	2.0E+03	n	---	---	---	2.0E+03	9.6E+03	2.5E+03
Carbosulfan	55285-14-8	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03
Carboxin	5234-68-4	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04
Chloral	75-87-6	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---
Chloral hydrate (1,1-ethanediol, 2,2,2-trichloro-)	302-17-0	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04
Chloramben (amiben; 3-amino-2,5-dichlorobenzoic acid)	133-90-4	2.3E+03	n	---	---	---	2.3E+03	1.1E+04	2.9E+03
Chlordane (technical)	12789-03-6	7.3E+01	c	7.3E+01	1.6E+02	1.4E+02	1.5E+02	3.7E+02	2.4E+02
Chlordane, cis- (alpha chlordane)	5103-71-9	4.1E+01	c	4.1E+01	1.6E+02	5.5E+01	7.7E+01	3.7E+02	9.7E+01
Chlordane, gamma	57-74-9	4.1E+01	c	4.1E+01	1.6E+02	5.5E+01	7.7E+01	3.7E+02	9.7E+01
Chlorfenvinphos	470-90-6	1.1E+02	n	---	---	---	1.1E+02	5.1E+02	1.4E+02
Chloride*	16887-00-6	---	---	---	---	---	---	---	---
Chlorine	7782-50-5	2.5E+04	n	---	---	---	2.5E+04	7.3E+04	3.9E+04
Chloroaniline, p-	106-47-8	6.1E+02	n	---	---	---	6.1E+02	2.9E+03	7.7E+02
Chlorobenzene	108-90-7	1.5E+04	n	---	---	---	1.5E+04	1.5E+04	---
Chlorobenzilate	510-15-6	5.3E+01	c	5.3E+01	2.0E+02	7.1E+01	3.1E+03	1.5E+04	3.9E+03
Chlorobromomethane (bromochloromethane)	74-97-5	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---
Chloro-1,3-butadiene, 2-	126-99-8	---	---	---	---	---	---	---	---
Chlorodifluoromethane	75-45-6	---	---	---	---	---	---	---	---
Chloroethane (ethyl chloride)	75-00-3	2.9E+05	n	---	---	---	2.9E+05	2.9E+05	---
Chloroethanol, 2-	107-07-3	2.9E+05	n	---	---	---	2.9E+05	2.9E+05	---
Chloroethoxy ethene, 2- (2-chloroethylvinylether)	110-75-8	5.0E+01	c	5.0E+01	5.0E+01	---	1.5E+03	1.5E+03	---
Chloroform	67-66-3	7.3E+03	n	---	---	---	7.3E+03	7.3E+03	---
Chlorohexane, 1-	544-10-5	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---
Chloromethane (methyl chloride)	74-87-3	4.2E+03	c	4.2E+03	4.2E+03	---	---	---	---
Chloro-3-methylphenol, 4-	59-50-7	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02
Chloronaphthalene, 1- (Chloronaphthalene, alpha-)	90-13-1	9.9E+03	n	---	---	---	9.9E+03	5.9E+04	1.2E+04
Chloronaphthalene, 2- (chloronaphthalene, beta)	91-58-7	9.9E+03	n	---	---	---	9.9E+03	5.9E+04	1.2E+04
Chloronitrobenzene, p- (1-chloro-4-nitrobenzene)	100-00-5	7.9E+02	c	7.9E+02	3.0E+03	1.1E+03	---	---	---
Chlorophenol, 2-	95-57-8	3.7E+03	n	---	---	---	3.7E+03	3.7E+03	---
Chlorophenol, 3-	108-43-0	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02
Chlorophenol, 4-	106-48-9	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02
Chlorophenyl phenylether, 4-	7005-72-3	9.5E-01	c	9.5E-01	3.6E+00	1.3E+00	---	---	---
Chloropropane, 2-	75-29-6	2.2E+04	n	---	---	---	2.2E+04	2.2E+04	---
Chloro-2-propanol, 1-	127-00-4	1.5E+04	n	---	---	---	1.5E+04	1.5E+04	---

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS				Carcinogenic			Noncarcinogenic		
		TotSed <sub>Comb</sub> <sup>2</sup>			TotSed <sub>Comb</sub> <sup>2</sup>	Sed <sub>Ing</sub>	Sed <sub>Derm</sub>	TotSed <sub>Comb</sub> <sup>2</sup>	Sed <sub>Ing</sub>	Sed <sub>Derm</sub>
		(mg/kg)	note <sup>3</sup>		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Chlorothalonil	1897-45-6	1.3E+03	c	1.3E+03	5.0E+03	1.7E+03	2.3E+03	1.1E+04	2.9E+03	
Chlorotoluene, o- (2-chlorotoluene)	95-49-8	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Chlorotoluene, p- (4-chlorotoluene)	106-43-4	1.5E+04	n	---	---	---	1.5E+04	1.5E+04	---	
Chlorpyrifos	2921-88-2	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Chromium (III) (total chromium)	16065-83-1	3.6E+04	n	---	---	---	3.6E+04	1.0E+06	3.8E+04	
Chromium (VI)	7440-47-3	1.4E+02	n	---	---	---	1.4E+02	2.2E+03	1.5E+02	
Chrysene	18540-29-9	1.6E+03	c	1.6E+03	7.5E+03	2.0E+03	---	---	---	
Cobalt	218-01-9	1.6E+03	c	---	---	---	---	---	---	
Copolymer acrylamide	7440-48-4	3.2E+04	n	---	---	---	3.2E+04	4.4E+04	1.2E+05	
Copper	69418-26-4	3.1E+01	n	---	---	---	3.1E+01	1.5E+02	3.9E+01	
Coronene	7440-50-8	2.1E+04	n	---	---	---	2.1E+04	2.9E+04	7.7E+04	
Coumaphos	191-07-1	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Cresol	56-72-4	1.1E+03	n	---	---	---	1.1E+03	5.1E+03	1.4E+03	
Cresol, m- (3-methylphenol)	1319-77-3	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Cresol, o- (2-methylphenol)	108-39-4	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Cresol, p- (4-methylphenol)	95-48-7	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Crotonaldehyde	106-44-5	7.7E+02	c	---	---	---	7.7E+02	3.7E+03	9.7E+02	
Cumene (isopropylbenzene)	123-73-9	2.9E+01	n	2.9E+01	2.9E+01	---	---	---	---	
Cyanazine	98-82-8	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Cyanide	21725-46-2	1.7E+01	c	1.7E+01	6.5E+01	2.3E+01	3.1E+02	1.5E+03	3.9E+02	
Cyanogen	57-12-5	1.1E+04	n	---	---	---	1.1E+04	1.5E+04	3.9E+04	
Cycloate	460-19-5	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---	
Cyclohexane	1134-23-2	8.4E+03	n	---	---	---	8.4E+03	4.0E+04	1.1E+04	
Cyclohexanol	110-82-7	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Cyclohexanone	108-93-0	7.7E+05	n	---	---	---	7.7E+05	1.0E+06	9.7E+05	
Cyclopentane, methyl-	108-94-1	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Cyclotetramethylenetetranitramine (HMX)	96-37-7	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Cyclotrimethylenetetranitramine (RDX)	2691-41-0	1.4E+03	n	---	---	---	1.4E+03	3.7E+04	1.5E+03	
Cymene (isopropyltoluene)	121-82-4	1.3E+02	c	1.3E+02	5.0E+02	1.7E+02	4.6E+02	2.2E+03	5.8E+02	
Cymoxanil	99-87-6	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Dacthal (DCPA)	57966-95-7	2.0E+03	n	---	---	---	2.0E+03	9.6E+03	2.5E+03	
Dalapon, sodium salt (2,2-dichloropropanoic acid)	1861-32-1	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03	
DDD	75-99-0	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
DDE	72-54-8	1.2E+02	c	1.2E+02	2.3E+02	2.7E+02	---	---	---	
DDT	72-55-9	8.7E+01	c	8.7E+01	1.6E+02	1.9E+02	---	---	---	
Demeton	50-29-3	8.7E+01	c	8.7E+01	1.6E+02	1.9E+02	1.7E+02	3.7E+02	3.2E+02	
Diacetone alcohol (4-hydroxy-4-methyl-2-pentanone)	8065-48-3	6.1E+00	n	---	---	---	6.1E+00	2.9E+01	7.7E+00	
Diallate	123-42-2	6.1E+03	n	---	---	---	6.1E+03	2.9E+04	7.7E+03	
Diazinon	2303-16-4	2.3E+02	c	2.3E+02	8.9E+02	3.1E+02	---	---	---	
Dibenz-a,h-acridine	333-41-5	1.4E+02	n	---	---	---	1.4E+02	6.6E+02	1.7E+02	
Dibenz-a,h-anthracene	226-36-8	1.2E+01	c	1.2E+01	4.5E+01	1.6E+01	---	---	---	
Dibenz-a,j-acridine	53-70-3	1.6E+00	c	1.6E+00	7.5E+00	2.0E+00	---	---	---	
Dibenzo(a,e)pyrene	224-42-0	1.6E+01	c	1.6E+01	7.5E+01	2.0E+01	---	---	---	
Dibenzo(a,h)pyrene	192-65-4	1.9E+00	c	1.9E+00	7.5E+00	2.6E+00	---	---	---	
Dibenzo(a,i)pyrene	189-64-0	1.9E-01	c	1.9E-01	7.5E-01	2.6E-01	---	---	---	
Dibenzofuran	189-55-9	1.9E-01	c	1.9E-01	7.5E-01	2.6E-01	---	---	---	
Dibenzothiophene	132-64-9	6.1E+02	n	---	---	---	6.1E+02	2.9E+03	7.7E+02	
Dibromochloromethane (chlorodibromomethane)	132-65-0	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Dibromo-3-chloropropane, 1,2-	124-48-1	6.5E+02	c	6.5E+02	6.5E+02	---	1.5E+04	1.5E+04	---	
Dibromofluoromethane	96-12-8	1.0E+01	c	1.0E+01	3.9E+01	1.4E+01	---	---	---	
Dicamba	1868-53-7	1.5E+05	n	---	---	---	1.5E+05	1.5E+05	---	
Dichlorimid	1918-00-9	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Dichlorobenzene, 1,2-	37764-25-3	3.8E+03	n	---	---	---	3.8E+03	1.8E+04	4.8E+03	
Dichlorobenzene, 1,3-	95-50-1	6.6E+04	n	---	---	---	6.6E+04	6.6E+04	---	
Dichlorobenzene, 1,4-	541-73-1	2.2E+04	n	---	---	---	2.2E+04	2.2E+04	---	
Dichlorobenzidine, 3,3'-	106-46-7	2.3E+03	c	2.3E+03	2.3E+03	---	---	---	---	
Dichlorobutane, 2,3-	91-94-1	3.2E+01	c	3.2E+01	1.2E+02	4.3E+01	---	---	---	
Dichloro-2-butene, 1,4-	7581-97-7	7.3E+03	n	---	---	---	7.3E+03	7.3E+03	---	
Dichloro-2-butene, 1,4- trans	764-41-0	---	---	---	---	---	---	---	---	
Dichlorodifluoromethane	110-57-6	---	---	---	---	---	---	---	---	
Dichloroethane, 1,1-	75-71-8	1.5E+05	n	---	---	---	1.5E+05	1.5E+05	---	
Dichloroethane, 1,2-	75-34-3	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Dichloroethylene, 1,1-	107-06-2	6.0E+02	c	6.0E+02	6.0E+02	---	---	---	---	
Dichloroethylene, cis-1,2-	75-35-4	3.7E+04	n	---	---	---	3.7E+04	3.7E+04	---	
Dichloroethylene, trans-1,2-	156-59-2	7.3E+03	n	---	---	---	7.3E+03	7.3E+03	---	
Dichlorofluoromethane	156-60-5	1.5E+04	n	---	---	---	1.5E+04	1.5E+04	---	
Dichlorophenol, 2,3-	75-43-4	1.5E+05	n	---	---	---	1.5E+05	1.5E+05	---	
Dichlorophenol, 2,4-	576-24-9	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Dichlorophenol, 2,5-	120-83-2	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Dichlorophenol, 2,6-	583-78-8	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Dichlorophenol, 3,4-	87-65-0	1.5E+02	n	---	---	---	1.5E+02	7.3E+02	1.9E+02	
Dichlorophenol, 3,5-	95-77-2	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Dichlorophenoxyacetic acid, 2,4- (2,4-D)	591-35-5	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Dichlorophenoxy, 2,4- butyric acid, 4- (2,4-DB)	94-75-7	2.5E+03	n	---	---	---	2.5E+03	7.3E+03	3.9E+03	
Dichloroprop (2-(2,4-dichlorophenoxy) propanoic acid)	94-82-6	1.2E+03	n	---	---	---	1.2E+03	5.9E+03	1.5E+03	
Dichloroprop (2-(2,4-dichlorophenoxy) propanoic acid)	120-36-5	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03	

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS				Carcinogenic			Noncarcinogenic		
		TotSed <sub>Comb</sub> <sup>2</sup> (mg/kg)	note <sup>3</sup>		TotSed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	TotSed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)
Dichloropropane, 1,2-	78-87-5	8.0E+02	c	8.0E+02	8.0E+02	---	6.6E+04	6.6E+04	---	
Dichloropropane, 1,3-	142-28-9	5.4E+02	c	5.4E+02	5.4E+02	---	2.2E+04	2.2E+04	---	
Dichloropropane, 2,2-	594-20-7	8.0E+02	c	8.0E+02	8.0E+02	---	6.6E+04	6.6E+04	---	
Dichloropropanol, 2,3-	616-23-9	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Dichloropropene, 1,1-	563-58-6	5.4E+02	c	5.4E+02	5.4E+02	---	2.2E+04	2.2E+04	---	
Dichloropropene, 1,3- (mixed isomers)	542-75-6	5.4E+02	c	5.4E+02	5.4E+02	---	2.2E+04	2.2E+04	---	
Dichloropropene, cis 1,3-	10061-01-5	7.3E+01	n	1.0E+02	1.0E+02	---	7.3E+01	7.3E+01	---	
Dichloropropene, trans 1,3-	10061-02-6	5.4E+02	c	5.4E+02	5.4E+02	---	2.2E+04	2.2E+04	---	
Dichlorvos	62-73-7	4.9E+01	c	4.9E+01	1.9E+02	6.6E+01	7.7E+01	3.7E+02	9.7E+01	
Dicrotophos (bidrin)	141-66-2	1.5E+01	n	---	---	---	1.5E+01	7.3E+01	1.9E+01	
Dicyclopentadiene	77-73-6	2.2E+04	n	---	---	---	2.2E+04	2.2E+04	---	
Dieldrin	60-57-1	8.9E-01	c	8.9E-01	3.4E+00	1.2E+00	7.7E+00	3.7E+01	9.7E+00	
Diethanolamine	111-42-2	7.7E+01	n	---	---	---	7.7E+01	3.7E+02	9.7E+01	
Diethyl phthalate	84-66-2	1.2E+05	n	---	---	---	1.2E+05	5.9E+05	1.5E+05	
Diethylene glycol	111-46-6	3.1E+05	n	---	---	---	3.1E+05	1.0E+06	3.9E+05	
Diethylene glycol monobutyl ether	112-34-5	1.4E+04	n	---	---	---	1.4E+04	6.6E+04	1.7E+04	
Diethylhexyl adipate	103-23-1	1.2E+04	c	1.2E+04	4.5E+04	1.6E+04	9.2E+04	4.4E+05	1.2E+05	
Diethylstilbestrol	56-53-1	3.0E-03	c	3.0E-03	1.2E-02	4.1E-03	---	---	---	
Diisobutylene (trimethyl-1-pentene, 2,4,4-)	107-39-1	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---	
Diisopropyl ether (2,2'-oxybis-propane)	108-20-3	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Dimethenamid	87674-68-8	2.3E+03	n	---	---	---	2.3E+03	1.1E+04	2.9E+03	
Dimethoate	60-51-5	3.1E+01	n	---	---	---	3.1E+01	1.5E+02	3.9E+01	
Dimethoxybenzidine, 3,3'-	119-90-4	1.0E+03	c	1.0E+03	3.9E+03	1.4E+03	---	---	---	
Dimethylaminoazobenzene, p-	60-11-7	1.5E+00	n	---	---	---	1.5E+00	7.3E+00	1.9E+00	
Dimethylbenz-a-anthracene, 7,12-	57-97-6	4.7E-02	c	4.7E-02	2.2E-01	5.9E-02	---	---	---	
Dimethylbenzidine, 3,3'-	119-93-7	1.5E+00	c	1.5E+00	5.9E+00	2.1E+00	---	---	---	
Dimethylnaphthalene, 1,3-	575-41-7	4.9E+03	n	---	---	---	4.9E+03	2.9E+04	5.9E+03	
Dimethyl phenol, 2,4-	105-67-9	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Dimethylphenethylamine, alpha, alpha-	122-09-8	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Dimethylphthalate	131-11-3	1.2E+05	n	---	---	---	1.2E+05	5.9E+05	1.5E+05	
Di-n-butyl phthalate	84-74-2	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Dinitrobenzene, 1,3- (dinitrobenzene, 2,4- )	99-65-0	1.5E+01	n	---	---	---	1.5E+01	7.3E+01	1.9E+01	
Dinitrobenzene, 1,4-	100-25-4	6.1E+01	n	---	---	---	6.1E+01	2.9E+02	7.7E+01	
Dinitro-2-methylphenol, 4,6- (dinitro-o-cresol, 4, 6-)	534-52-1	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Dinitrophenol, 2,4-	51-28-5	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Dinitrophenol, 2,5-	329-71-5	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Dinitrotoluene, 2,4-	121-14-2	2.1E+01	c	2.1E+01	8.0E+01	2.8E+01	3.1E+02	1.5E+03	3.9E+02	
Dinitrotoluene, 2,6-	606-20-2	2.1E+01	c	2.1E+01	8.0E+01	2.8E+01	1.5E+02	7.3E+02	1.9E+02	
Di-n-octyl phthalate	117-84-0	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Dinoseb	88-85-7	1.5E+02	n	---	---	---	1.5E+02	7.3E+02	1.9E+02	
Dioxane, 1,4-	123-91-1	5.0E+03	c	5.0E+03	5.0E+03	---	7.3E+04	7.3E+04	---	
Diphenylamine	122-39-4	3.8E+03	n	---	---	---	3.8E+03	1.8E+04	4.8E+03	
Diphenylhydrazine, 1,2-	122-66-7	1.8E+01	c	1.8E+01	6.8E+01	2.4E+01	---	---	---	
Diphenyl ether	101-84-8	9.5E+02	n	---	---	---	9.5E+02	4.6E+03	1.2E+03	
Dipropylene glycol	110-98-5	1.8E+04	n	---	---	---	1.8E+04	8.5E+04	2.2E+04	
Diquat	85-00-7	3.4E+02	n	---	---	---	3.4E+02	1.6E+03	4.3E+02	
Disodium iminodiacetate (iminodiacetic acid, disodium salt)	928-72-3/ 142-73-4	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03	
Disulfoton	298-04-4	6.1E+00	n	---	---	---	6.1E+00	2.9E+01	7.7E+00	
Diuron	330-54-1 27193-86-8	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Dodecylphenol, 4-	104-43-8	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Endosulfan	115-29-7	9.2E+02	n	---	---	---	9.2E+02	4.4E+03	1.2E+03	
Endosulfan I	959-98-8	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Endosulfan II	33213-65-9	9.2E+02	n	---	---	---	9.2E+02	4.4E+03	1.2E+03	
Endosulfan sulfate	1031-07-8	9.2E+02	n	---	---	---	9.2E+02	4.4E+03	1.2E+03	
Endothall	145-73-3	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Endrin	72-20-8	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Endrin aldehyde	7421-93-4	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Endrin ketone	53494-70-5	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Epichlorohydrin	106-89-8	1.5E+03	n	5.5E+03	5.5E+03	---	1.5E+03	1.5E+03	---	
EPN (o-ethyl o-(4-nitrophenyl)phenylphosphonothioate)	2104-64-5	1.5E+00	n	---	---	---	1.5E+00	7.3E+00	1.9E+00	
Esfenvalerate	66230-04-4	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Ethalfuralin (sonolan)	55283-68-6	1.6E+02	c	1.6E+02	6.1E+02	2.2E+02	6.1E+03	2.9E+04	7.7E+03	
Ethanol	64-17-5	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Ethion	563-12-2	7.7E+01	n	---	---	---	7.7E+01	3.7E+02	9.7E+01	
Ethoprop	13194-48-4	1.5E+01	n	5.1E+02	1.9E+03	6.8E+02	1.5E+01	7.3E+01	1.9E+01	
Ethoxy ethanol, 2-	110-80-5	2.9E+05	n	---	---	---	2.9E+05	2.9E+05	---	
Ethyl acetate	141-78-6	6.6E+05	n	---	---	---	6.6E+05	6.6E+05	---	
Ethyl acrylate	140-88-5	1.1E+03	c	1.1E+03	1.1E+03	---	---	---	---	
Ethyl benzene	100-41-4	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
Ethyl dipropylthiocarbamate, S-	759-94-4	3.8E+03	n	---	---	---	3.8E+03	1.8E+04	4.8E+03	
Ethylene*	74-85-1	---	---	---	---	---	---	---	---	
Ethylenediamine	107-15-3	1.5E+04	n	---	---	---	1.5E+04	1.5E+04	---	
Ethylene dibromide (dibromoethane, 1,2- )	106-93-4	2.7E+01	c	2.7E+01	2.7E+01	---	4.4E+02	4.4E+02	---	
Ethylene glycol	107-21-1	3.1E+05	n	---	---	---	3.1E+05	1.0E+06	3.9E+05	

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS	Carcinogenic			Noncarcinogenic			
		Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> <sup>2</sup> (mg/kg)	Sed <sub>Derm</sub> <sup>2</sup> (mg/kg)	Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> <sup>2</sup> (mg/kg)	Sed <sub>Derm</sub> <sup>2</sup> (mg/kg)	
Ethyleneimine	151-56-4	8.4E-01	c	8.4E-01	8.4E-01	---	---	---
Ethylene oxide	75-21-8	5.3E+01	c	5.3E+01	5.3E+01	---	---	---
Ethylene thiourea	96-45-7	1.2E+01	n	1.3E+02	5.0E+02	1.7E+02	1.2E+01	5.9E+01
Ethyl ether	60-29-7	1.5E+05	n	---	---	---	1.5E+05	1.5E+05
Ethyl-1-hexanol, 2-	104-76-7	2.3E+04	n	---	---	---	2.3E+04	1.1E+05
Ethyl-2-hexenal, 2-	645-62-5	1.1E+05	n	---	---	---	1.1E+05	1.1E+05
Ethylhexyl acrylate, 2-	103-11-7	3.0E+02	c	3.0E+02	1.1E+03	4.0E+02	---	---
Ethyl methacrylate	97-63-2	6.6E+04	n	---	---	---	6.6E+04	6.6E+04
Ethyl methanesulfonate	62-50-0	1.4E+02	c	1.4E+02	5.5E+02	1.9E+02	---	---
Ethyl-2-methyl benzene, 1-	611-14-3	1.5E+05	n	---	---	---	1.5E+05	1.5E+05
Ethyl-4-methyl benzene, 1-	622-96-8	1.5E+05	n	---	---	---	1.5E+05	1.5E+05
Ethyl tert-butyl ether (2-ethyl-2-ethoxypropane)	637-92-3	7.3E+02	n	---	---	---	7.3E+02	7.3E+02
Famphur	52-85-7	4.6E+00	n	---	---	---	4.6E+00	2.2E+01
Fensulfothion	115-90-2	1.5E+02	n	---	---	---	1.5E+02	7.3E+02
Fenthion	55-38-9	1.1E+01	n	---	---	---	1.1E+01	5.1E+01
Fluoranthene	206-44-0	4.9E+03	n	---	---	---	4.9E+03	2.9E+04
Fluorene	86-73-7	4.9E+03	n	---	---	---	4.9E+03	2.9E+04
Fluorine (soluble fluoride)	7782-41-4	3.2E+04	n	---	---	---	3.2E+04	4.4E+04
Fluorochloridone	61213-25-0	1.1E+03	n	---	---	---	1.1E+03	5.5E+03
Fonofos	944-22-9	3.1E+02	n	---	---	---	3.1E+02	1.5E+03
Formaldehyde	50-00-0	1.5E+05	n	---	---	---	1.5E+05	1.5E+05
Formic acid	64-18-6	1.0E+06	n	---	---	---	1.0E+06	1.0E+06
Furan	110-00-9	7.3E+02	n	---	---	---	7.3E+02	7.3E+02
Furfural	98-01-1	2.2E+03	n	---	---	---	2.2E+03	2.2E+03
Glycidylaldehyde	765-34-4	2.9E+02	n	---	---	---	2.9E+02	2.9E+02
Glyphosate	1071-83-6	1.5E+04	n	---	---	---	1.5E+04	7.3E+04
Heptachlor	76-44-8	3.2E+00	c	3.2E+00	1.2E+01	4.3E+00	7.7E+01	3.7E+02
Heptachlor epoxide	1024-57-3	1.6E+00	c	1.6E+00	6.0E+00	2.1E+00	2.0E+00	9.6E+00
Heptane, n-	142-82-5	4.4E+04	n	---	---	---	4.4E+04	4.4E+04
Heptanoic acid, n-	111-14-8	7.7E+04	n	---	---	---	7.7E+04	3.7E+05
Hexachlorobenzene	118-74-1	8.9E+00	c	8.9E+00	3.4E+01	1.2E+01	1.2E+02	5.9E+02
Hexachlorobutadiene	87-68-3	3.1E+01	n	1.8E+02	7.0E+02	2.5E+02	3.1E+01	1.5E+02
Hexachlorocyclohexane, alpha (alpha-BHC)	319-84-6	4.1E+00	c	4.1E+00	8.7E+00	7.6E+00	2.3E+03	5.9E+03
Hexachlorocyclohexane, beta (beta-BHC)	319-85-7	1.4E+01	c	1.4E+01	3.0E+01	2.7E+01	---	---
Hexachlorocyclohexane, delta (delta-BHC)	319-86-8	1.4E+01	c	1.4E+01	3.0E+01	2.7E+01	8.7E+01	2.2E+02
Hexachlorocyclohexane, gamma (lindane; gamma-BHC)	58-89-9	2.0E+01	c	2.0E+01	4.2E+01	3.7E+01	8.7E+01	2.2E+02
Hexachlorocyclohexane, techn (technical-BHC)	608-73-1	1.4E+01	c	1.4E+01	3.0E+01	2.7E+01	---	---
Hexachlorocyclopentadiene (HCCPD)	77-47-4	9.2E+02	n	---	---	---	9.2E+02	4.4E+03
Hexachloroethane	67-72-1	1.5E+02	n	1.0E+03	3.9E+03	1.4E+03	1.5E+02	7.3E+02
Hexachlorophene	70-30-4	4.6E+01	n	---	---	---	4.6E+01	2.2E+02
Hexachloropropylene	1888-71-7	1.5E+02	n	1.0E+03	3.9E+03	1.4E+03	1.5E+02	7.3E+02
Hexanal, 2-ethyl-	123-05-7	2.3E+04	n	---	---	---	2.3E+04	1.1E+05
Hexane, n-	110-54-3	4.4E+04	n	---	---	---	4.4E+04	4.4E+04
Hexanediol, 1,6-	629-11-8	7.7E+05	n	---	---	---	7.7E+05	1.0E+06
Hexanoic acid	142-62-1	9.8E+03	n	---	---	---	9.8E+03	4.7E+04
Hexanone, 2-	591-78-6	4.4E+04	n	---	---	---	4.4E+04	4.4E+04
Hexazinone	51235-04-2	5.1E+03	n	---	---	---	5.1E+03	2.4E+04
Hexylene glycol (2-methyl-2,4-pentanediol)	107-41-5	4.6E+04	n	---	---	---	4.6E+04	2.2E+05
Hydrazine	302-01-2	1.8E+01	c	1.8E+01	1.8E+01	---	---	---
Hydrocaproic acid, 6- (6-hydroxyhexanoic acid)	1191-25-9	1.2E+04	n	---	---	---	1.2E+04	#DIV/0!
Hydrogen chloride (hydrochloric acid)*	7647-01-0	---	---	---	---	---	---	---
Hydroquinone	123-31-9	6.1E+03	n	---	---	---	6.1E+03	2.9E+04
Indene	95-13-6	1.5E+04	n	---	---	---	1.5E+04	1.5E+04
Indeno-1,2,3-cd-pyrene	193-39-5	1.6E+01	c	1.6E+01	7.5E+01	2.0E+01	---	---
Iron*	7439-89-6	---	---	---	---	---	---	---
Isoamyl alcohol	123-51-3	3.7E+03	n	---	---	---	3.7E+03	3.7E+03
Isobutyl alcohol	78-83-1	2.2E+05	n	---	---	---	2.2E+05	2.2E+05
Isobutylene (2-methyl-1-propene)	115-11-7	---	---	---	---	---	---	---
Isobutyric acid (2-methylpropanoic acid)	79-31-2	7.7E+04	n	---	---	---	7.7E+04	3.7E+05
Isodecanol	25339-17-7	2.4E+02	n	---	---	---	2.4E+02	1.2E+03
Isodrin	465-73-6	8.4E-02	c	8.4E-02	3.2E-01	1.1E-01	4.6E-01	2.2E+00
Isophorone	78-59-1	1.5E+04	c	1.5E+04	5.7E+04	2.0E+04	3.1E+04	1.5E+05
Isopropyl acetate	108-21-4	5.1E+04	n	---	---	---	5.1E+04	5.1E+04
Isopropyl alcohol	67-63-0	1.5E+05	n	---	---	---	1.5E+05	1.5E+05
Isosafrole	120-58-1	6.5E+01	c	6.5E+01	2.5E+02	8.7E+01	---	---
Kelthane (dicofof)	115-32-2	9.2E+02	n	---	---	---	9.2E+02	4.4E+03
Kepon (chlordecone)	143-50-0	8.9E-01	c	8.9E-01	3.4E+00	1.2E+00	7.7E+01	3.7E+02
Lead (inorganic)	7439-92-1	5.0E+02	---	5.0E+02	---	---	5.0E+02	---
Limonene, d-*	5989-27-5	---	---	---	---	---	---	---
Lithium	7439-93-2	1.1E+04	n	---	---	---	1.1E+04	1.5E+04
Magnesium*	7439-95-4	---	---	---	---	---	---	---
Malathion	121-75-5	3.1E+03	n	---	---	---	3.1E+03	1.5E+04
Maleic anhydride	108-31-6	1.5E+04	n	---	---	---	1.5E+04	7.3E+04
Maleic hydrazide	123-33-1	7.7E+04	n	---	---	---	7.7E+04	3.7E+05
Malononitrile	109-77-3	3.1E+00	n	---	---	---	3.1E+00	1.5E+01
Mancozeb	8018-01-7	4.6E+03	n	---	---	---	4.6E+03	2.2E+04

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS				Carcinogenic			Noncarcinogenic		
		TotSed <sub>Comb</sub> <sup>2</sup> (mg/kg)	note <sup>3</sup>		TotSed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	TotSed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)
Manganese	7439-96-3	1.4E+04	n	---	---	---	1.4E+04	1.0E+05	1.6E+04	
MCPA (4-(chloro-2-methylphenoxy) acetic acid)	94-74-6	7.7E+01	n	---	---	---	7.7E+01	3.7E+02	9.7E+01	
	7085-19-0/									
MCPP (2-(4-chloro-2-methylphenoxy) propanoic acid)	93-65-2	1.5E+02	n	---	---	---	1.5E+02	7.3E+02	1.9E+02	
Merphos	150-50-5	4.6E+00	n	---	---	---	4.6E+00	2.2E+01	5.8E+00	
	7439-97-6/									
Mercury (pH = 4.9)	7487-94-7	3.4E+01	n	---	---	---	3.4E+01	2.2E+02	4.1E+01	
Methacrylic acid (2-methyl-2-propenoic acid)	79-41-4	7.3E+03	n	---	---	---	7.3E+03	7.3E+03	---	
Methacrylonitrile	126-98-7	7.3E+01	n	---	---	---	7.3E+01	7.3E+01	---	
Methanol	67-56-1	3.7E+05	n	---	---	---	3.7E+05	3.7E+05	---	
Methapyrilene	91-80-5	3.0E+00	c	3.0E+00	1.2E+01	4.1E+00	---	---	---	
Methomyl	16752-77-5	3.8E+03	n	---	---	---	3.8E+03	1.8E+04	4.8E+03	
Methoxychlor	72-43-5	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02	
Methoxyethanol, 2-	109-86-4	---	---	---	---	---	---	---	---	
Methyl acetate (acetic acid, methyl ester)	79-20-9	7.3E+05	n	---	---	---	7.3E+05	7.3E+05	---	
Methyl acrylate	96-33-3	1.5E+03	n	---	---	---	1.5E+03	1.5E+03	---	
Methyl amyl ketone (2-heptanone)	110-43-0	3.7E+04	n	---	---	---	3.7E+04	3.7E+04	---	
Methyl-1-butene, 2-	563-46-2	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---	
Methyl-2-butene, 2-	513-35-9	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---	
Methylcholanthrene, 3-	56-49-5	5.3E-01	c	5.3E-01	2.5E+00	6.7E-01	---	---	---	
Methyl chrysene, 1-	3351-28-8	1.6E+03	c	1.6E+03	7.5E+03	2.0E+03	---	---	---	
Methyl chrysene, 2-	3351-32-4	1.6E+03	c	1.6E+03	7.5E+03	2.0E+03	---	---	---	
Methyl chrysene, 6-	1705-85-7	1.6E+02	c	1.6E+02	7.5E+02	2.0E+02	---	---	---	
Methyl cyclohexane	108-87-2	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Methylene-bis (2-chloroaniline) 4,4'-	101-14-4	1.1E+02	n	1.1E+02	4.2E+02	1.5E+02	1.1E+02	5.1E+02	1.4E+02	
Methylene bromide (dibromomethane)	74-95-3	7.3E+03	c	7.3E+03	7.3E+03	---	4.4E+04	4.4E+04	---	
Methylene chloride (dichloromethane)	75-09-2	7.3E+03	c	7.3E+03	7.3E+03	---	4.4E+04	4.4E+04	---	
Methyl ethyl ketone (2-butanone)	78-93-3	4.4E+05	n	---	---	---	4.4E+05	4.4E+05	---	
Methyl iodide (iodomethane)	74-88-4	1.0E+03	n	---	---	---	1.0E+03	1.0E+03	---	
Methyl isobutyl ketone (4-methyl-2-pentanone)	108-10-1	5.9E+04	n	---	---	---	5.9E+04	5.9E+04	---	
Methyl mercury	22967-92-6	5.3E+01	n	---	---	---	5.3E+01	7.3E+01	1.9E+02	
Methylmercury hydroxide	1184-57-2	1.5E+01	n	---	---	---	1.5E+01	7.3E+01	1.9E+01	
Methyl methacrylate	80-62-6	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Methyl methanesulfonate	66-27-3	1.4E+02	c	1.4E+02	5.5E+02	1.9E+02	---	---	---	
Methylnaphthalene, 1-	90-12-0	8.7E+03	n	---	---	---	8.7E+03	5.1E+04	1.0E+04	
Methylnaphthalene, 2-	91-57-6	4.9E+02	n	---	---	---	4.9E+02	2.9E+03	5.9E+02	
Methyl-5-nitroaniline, 2- (5-nitro-o-toluidine)	99-55-8	4.3E+02	c	4.3E+02	1.7E+03	5.8E+02	---	---	---	
Methyl parathion	298-00-0	3.8E+01	n	---	---	---	3.8E+01	1.8E+02	4.8E+01	
Methyl-2-pentenal, 2-	623-36-9	2.9E+01	c	2.9E+01	2.9E+01	---	---	---	---	
Methyl-1-propanal, 2- (isobutyraldehyde)	78-84-2	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---	
Methylpyrrolidone, N-	872-50-4	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Methyltetrahydrofuran, 2-	96-47-9	7.2E+03	c	7.2E+03	7.2E+03	---	1.5E+05	1.5E+05	---	
Methyltetrahydropyran, 2-	10141-72-7	7.2E+03	c	7.2E+03	7.2E+03	---	1.5E+05	1.5E+05	---	
Metolachlor	51218-45-2	2.3E+04	n	---	---	---	2.3E+04	1.1E+05	2.9E+04	
Metribuzin	21087-64-9	3.8E+03	n	---	---	---	3.8E+03	1.8E+04	4.8E+03	
Mirex	2385-85-5	3.1E+01	n	---	---	---	3.1E+01	1.5E+02	3.9E+01	
Molinate	2212-67-1	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Molybdenum	7439-98-7	1.8E+03	n	---	---	---	1.8E+03	3.7E+03	3.7E+03	
Monocrotophos	2157-98-4	9.2E+01	n	---	---	---	9.2E+01	4.4E+02	1.2E+02	
Morpholine	110-91-8	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
MTBE (methyl tert-butyl ether)	1634-04-4	7.3E+03	n	3.0E+04	3.0E+04	---	7.3E+03	7.3E+03	---	
Naled	300-76-5	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Naphthalene	91-20-3	2.5E+03	n	---	---	---	2.5E+03	1.5E+04	3.0E+03	
Naphthoquinone, 1,4-	130-15-4	1.1E+03	n	---	---	---	1.1E+03	5.1E+03	1.4E+03	
Naphthylamine, 1-	134-32-7	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Naphthylamine, 2-	91-59-8	7.9E+00	c	7.9E+00	3.0E+01	1.1E+01	---	---	---	
Napropamide	15299-99-7	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Neopentyl glycol	126-30-7	4.6E+04	n	---	---	---	4.6E+04	2.2E+05	5.8E+04	
Nickel and compounds	7440-02-0	1.4E+03	n	---	---	---	1.4E+03	1.5E+04	1.5E+03	
Nitrate	14797-55-8	8.5E+05	n	---	---	---	8.5E+05	1.0E+06	1.0E+06	
Nitrite	14797-65-0	5.3E+04	n	---	---	---	5.3E+04	7.3E+04	1.9E+05	
Nitroaniline, 2-	88-74-4	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Nitroaniline, 3-	99-09-2	4.6E+01	n	3.7E+02	1.4E+03	5.1E+02	4.6E+01	2.2E+02	5.8E+01	
Nitroaniline, 4-	100-01-6	3.7E+02	c	3.7E+02	1.4E+03	5.1E+02	4.6E+02	2.2E+03	5.8E+02	
Nitrobenzene	98-95-3	7.7E+01	n	---	---	---	7.7E+01	3.7E+02	9.7E+01	
Nitroglycerin	55-63-0	1.1E+01	n	1.0E+03	3.9E+03	1.4E+03	1.1E+01	5.1E+01	1.4E+01	
Nitrophenol, 2-	88-75-5	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Nitrophenol, 3-	554-84-7	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Nitrophenol, 4-	100-02-7	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02	
Nitropropane, 2-	79-46-9	1.0E+02	n	---	---	---	1.0E+02	1.0E+02	---	
Nitroquinoline-N-oxide, 4-	56-57-5	1.5E+00	c	1.5E+00	5.8E+00	2.0E+00	---	---	---	
Nitrosodiethanolamine, N-	1116-54-7	5.1E+00	c	5.1E+00	1.9E+01	6.9E+00	---	---	---	
Nitrosodiethylamine, N-	55-18-5	3.6E-01	c	3.6E-01	3.6E-01	---	---	---	---	
Nitrosodimethylamine, N-	62-75-9	1.1E+00	c	1.1E+00	1.1E+00	---	---	---	---	
Nitrosodi-n-butylamine, N-	924-16-3	2.6E+00	c	2.6E+00	1.0E+01	3.6E+00	---	---	---	
Nitrosodi-n-propylamine, N-	621-64-7	6.3E-01	c	6.3E-01	7.8E+00	6.9E-01	---	---	---	

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS	Carcinogenic			Noncarcinogenic				
		Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg) note <sup>3</sup>	Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	
Nitrosodiphenylamine, N-	86-30-6	9.0E+02	c	9.0E+02	1.1E+04	9.8E+02	---	---	---
Nitroso-methyl-ethyl-amine, N-	10595-95-6	2.5E+00	c	2.5E+00	2.5E+00	---	---	---	---
Nitrosomorpholine, N-	59-89-2	2.1E+00	c	2.1E+00	8.1E+00	2.9E+00	---	---	---
Nitroso-N-ethylurea, N-	759-73-9	1.0E-01	c	1.0E-01	3.9E-01	1.4E-01	---	---	---
Nitrosopiperidine, N-	100-75-4	1.5E+00	c	1.5E+00	5.8E+00	2.0E+00	---	---	---
Nitrosopyrrolidine, N-	930-55-2	6.8E+00	c	6.8E+00	2.6E+01	9.1E+00	---	---	---
Nitrotoluene, m-	99-08-1	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03
Nitrotoluene, o-	88-72-2	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03
Nitrotoluene, p-	99-99-0	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03
Nonachlor, cis-	5103-73-1	4.1E+01	c	4.1E+01	1.6E+02	5.5E+01	7.7E+01	3.7E+02	9.7E+01
Nonachlor, trans-	39765-80-5	4.1E+01	c	4.1E+01	1.6E+02	5.5E+01	7.7E+01	3.7E+02	9.7E+01
Nonanal	124-19-6	3.1E+04	n	---	---	---	3.1E+04	1.5E+05	3.9E+04
	25154-52-3/ 84852-15-3/								
Nonylphenol	104-40-5	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04
Nonylphenol ethoxylate	104-35-8	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04
Octamethylpyrophosphoramide	152-16-9	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02
Octanone	106-68-3	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Oxamyl	23135-22-0	3.8E+03	n	---	---	---	3.8E+03	1.8E+04	4.8E+03
Oxychlorodane	27304-13-8	4.1E+01	c	4.1E+01	1.6E+02	5.5E+01	7.7E+01	3.7E+02	9.7E+01
Paraquat	1910-42-5	6.9E+02	n	---	---	---	6.9E+02	3.3E+03	8.7E+02
Parathion (ethyl parathion)	56-38-2	9.2E+02	n	---	---	---	9.2E+02	4.4E+03	1.2E+03
Pebulate	1114-71-2	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03
Pendimethalin	40487-42-1	6.1E+03	n	---	---	---	6.1E+03	2.9E+04	7.7E+03
Pentachlorobenzene	608-93-5	1.2E+02	n	---	---	---	1.2E+02	5.9E+02	1.5E+02
Pentachloroethane	76-01-7	2.1E+03	c	2.1E+03	2.1E+03	---	2.2E+04	2.2E+04	---
Pentachloronitrobenzene	82-68-8	5.5E+01	c	5.5E+01	2.1E+02	7.4E+01	4.6E+02	2.2E+03	5.8E+02
Pentachlorophenol	87-86-5	5.6E+01	c	5.6E+01	4.5E+02	6.4E+01	2.1E+03	2.2E+04	2.3E+03
Pentadiene, 1,3-trans-	2004-70-8	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Pentaerythritol tetranitrate (PETN)	78-11-5	6.1E+04	n	---	---	---	6.1E+04	2.9E+05	7.7E+04
Pentane	109-66-0	5.1E+05	n	---	---	---	5.1E+05	5.1E+05	---
Pentane, 2-methyl-	107-83-5	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Pentane, 3-methyl-	96-14-0	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Pentanediol, 1,5-	111-29-5	7.7E+05	n	---	---	---	7.7E+05	1.0E+06	9.7E+05
Pentanol, 1-	71-41-0	2.4E+04	n	---	---	---	2.4E+04	2.4E+04	---
Pentanol, 4-methyl-2-	108-11-2	1.9E+04	n	---	---	---	1.9E+04	1.9E+04	---
Pentanone, 2-	107-87-9	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---
Pentyne, 1-	627-19-0	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---
Perchlorate	14797-73-0	1.8E+02	n	---	---	---	1.8E+02	5.1E+02	2.7E+02
Perylene	198-55-0	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03
Phenacetin	62-44-2	6.5E+03	c	6.5E+03	2.5E+04	8.7E+03	---	---	---
Phenanthrene	85-01-8	3.7E+03	n	---	---	---	3.7E+03	2.2E+04	4.5E+03
Phenanthridine	229-87-8	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02
Phenol	108-95-2	4.6E+04	n	---	---	---	4.6E+04	2.2E+05	5.8E+04
Phenol, 4-tert-butyl-	98-54-4	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02
Phenothiazine	92-84-2	1.7E+02	n	---	---	---	1.7E+02	8.1E+02	2.1E+02
Phenylene diamine, m-	108-45-2	9.2E+02	n	---	---	---	9.2E+02	4.4E+03	1.2E+03
Phenylene diamine, p-	106-50-3	2.9E+04	n	---	---	---	2.9E+04	1.4E+05	3.7E+04
Phenyl mercuric acetate	62-38-4	1.2E+01	n	---	---	---	1.2E+01	5.9E+01	1.5E+01
Phorate	298-02-2	3.1E+01	n	---	---	---	3.1E+01	1.5E+02	3.9E+01
Phosalone	2310-17-0	3.1E+02	n	---	---	---	3.1E+02	1.5E+03	3.9E+02
Phosdrin (mevinphos)	7786-34-7	3.8E+00	n	---	---	---	3.8E+00	1.8E+01	4.8E+00
Phosmet	732-11-6	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03
Phosphine	7803-51-2	7.6E+01	n	---	---	---	7.6E+01	2.2E+02	1.2E+02
Phosphorus, total*	7723-14-0	---	---	---	---	---	---	---	---
Phosphorus, white	7723-14-0	5.1E+00	n	---	---	---	5.1E+00	1.5E+01	7.7E+00
Phthalic anhydride	85-44-9	3.1E+05	n	---	---	---	3.1E+05	1.0E+06	3.9E+05
Picloram	1918-02-1	1.1E+04	n	---	---	---	1.1E+04	5.1E+04	1.4E+04
Picoline, 2- (2-methylpyridine)	109-06-8	6.6E+03	n	---	---	---	6.6E+03	6.6E+03	---
Polybrominated biphenyls (PBBs)	67774-32-7	1.1E+00	n	1.6E+00	6.1E+00	2.2E+00	1.1E+00	5.1E+00	1.4E+00
Polychlorinated biphenyls (PCBs)	1336-36-3	2.3E+00	n	5.5E+00	2.7E+01	6.9E+00	2.3E+00	1.5E+01	2.8E+00
Potassium*	7440-09-7	---	---	---	---	---	---	---	---
Primene	68955-53-3	9.2E+02	n	---	---	---	9.2E+02	4.4E+03	1.2E+03
Prometon (pramitol)	1610-18-0	2.3E+03	n	---	---	---	2.3E+03	1.1E+04	2.9E+03
Pronamide	23950-58-5	1.1E+04	n	---	---	---	1.1E+04	5.5E+04	1.5E+04
Propanal (propionaldehyde)	123-38-6	5.9E+03	n	---	---	---	5.9E+03	5.9E+03	---
Propanil	709-98-8	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02
Propanoic acid (propionic acid)	79-09-4	3.7E+05	n	---	---	---	3.7E+05	3.7E+05	---
Propanol, 1-	71-23-8	1.5E+05	n	---	---	---	1.5E+05	1.5E+05	---
Propargite	2312-35-8	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03
Propargyl alcohol	107-19-7	1.5E+03	n	---	---	---	1.5E+03	1.5E+03	---
Propazine	139-40-2	3.2E+02	c	3.2E+02	1.2E+03	4.3E+02	3.1E+03	1.5E+04	3.9E+03
Propham	122-42-9	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03
Propionitrile (propane nitrile)	107-12-0	2.9E+02	n	---	---	---	2.9E+02	2.9E+02	---
Propyl acetate, n-	109-60-4	6.6E+04	n	---	---	---	6.6E+04	6.6E+04	---
Propylbenzene, n-	103-65-1	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS				Carcinogenic			Noncarcinogenic		
		Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	note <sup>3</sup>		Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)
Propylene glycol	57-55-6	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	1.0E+06	
Propylene glycol monomethyl ether	107-98-2	5.1E+05	n	---	---	---	5.1E+05	5.1E+05	---	
Propylene oxide	75-56-9	2.3E+02	c	2.3E+02	2.3E+02	---	---	---	---	
Propylene tetramer	6842-15-5	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Prothiofos (Tokuthion)	34643-46-4	1.5E+01	n	---	---	---	1.5E+01	7.3E+01	1.9E+01	
Pyrene	129-00-0	3.7E+03	n	---	---	---	3.7E+03	2.2E+04	4.5E+03	
Pyridine	110-86-1	7.3E+02	n	---	---	---	7.3E+02	7.3E+02	---	
Quinoline	91-22-5	4.7E+00	c	4.7E+00	1.8E+01	6.4E+00	---	---	---	
Ronnel	299-84-3	7.7E+03	n	---	---	---	7.7E+03	3.7E+04	9.7E+03	
Safrole	94-59-7	6.5E+01	c	6.5E+01	2.5E+02	8.7E+01	---	---	---	
Selenium	7782-49-2	2.7E+03	n	---	---	---	2.7E+03	3.7E+03	9.7E+03	
Selenourea	630-10-4	3.7E+03	n	---	---	---	3.7E+03	3.7E+03	---	
Silver	7440-22-4	3.5E+02	n	---	---	---	3.5E+02	3.7E+03	3.9E+02	
Simazine	122-34-9	1.2E+02	c	1.2E+02	4.5E+02	1.6E+02	7.7E+02	3.7E+03	9.7E+02	
Sodium*	7440-23-5	---	---	---	---	---	---	---	---	
Sodium diethyldithiocarbamate	148-18-5	2.0E+02	c	2.0E+02	2.0E+02	---	2.2E+04	2.2E+04	---	
Sodium hypochlorite	7681-52-9	5.3E+04	n	---	---	---	5.3E+04	1.5E+05	8.1E+04	
Sodium polyacrylate	9003-04-7	3.7E+05	n	---	---	---	3.7E+05	3.7E+05	---	
Strontium	7440-24-6	1.5E+05	n	---	---	---	1.5E+05	4.4E+05	2.3E+05	
Strychnine	57-24-9	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Styrene	100-42-5	1.5E+05	n	---	---	---	1.5E+05	1.5E+05	---	
Sulfate*	14808-79-8	---	---	---	---	---	---	---	---	
Sulfide*	18496-25-8	---	---	---	---	---	---	---	---	
Sulfolane	126-33-0	3.1E+00	n	---	---	---	3.1E+00	1.5E+01	3.9E+00	
Sulfur*	7704-34-9	---	---	---	---	---	---	---	---	
Sulprofos (Bolstar)	35400-43-2	5.8E+02	n	---	---	---	5.8E+02	#####	5.8E+02	
TCDD, 2,3,7,8- (dioxin)	1746-01-6	1.0E-03	---	1.0E-03	---	---	1.0E-03	---	---	
Tebuconazole	107534-96-3	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Tebuthiuron	34014-18-1	1.1E+04	n	---	---	---	1.1E+04	5.1E+04	1.4E+04	
Terbufos	13071-79-9	3.8E+00	n	---	---	---	3.8E+00	1.8E+01	4.8E+00	
Tert-amyl-ethyl ether (TAEE)	919-94-8	---	---	---	---	---	---	#DIV/0!	---	
Tert-amyl-methyl ether (TAME)	994-05-8	2.9E+04	n	---	---	---	2.9E+04	2.9E+04	---	
Tert-butyl alcohol (2-methyl-2-propanol)	75-65-0	6.6E+04	n	---	---	---	6.6E+04	6.6E+04	---	
Tetrachlorobenzene, 1,2,3,4-	634-66-2	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Tetrachlorobenzene, 1,2,3,5-	634-90-2	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Tetrachlorobenzene, 1,2,4,5-	95-94-3	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Tetrachloroethane, 1,1,1,2-	630-20-6	2.1E+03	c	2.1E+03	2.1E+03	---	2.2E+04	2.2E+04	---	
Tetrachloroethane, 1,1,2,2-	79-34-5	2.7E+02	c	2.7E+02	2.7E+02	---	2.9E+04	2.9E+04	---	
Tetrachloroethylene (perchloroethylene)	127-18-4	1.0E+03	c	1.0E+03	1.0E+03	---	7.3E+03	7.3E+03	---	
Tetrachlorophenol, 2,3,4,5-	4901-51-3	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Tetrachlorophenol, 2,3,4,6-	58-90-2	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Tetrachlorophenol, 2,3,5,6-	935-95-5	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Tetrachlorvinphos (Stirophos)	22248-79-9	6.4E+03	n	---	---	---	6.4E+03	3.1E+04	8.1E+03	
Tetradifon	116-29-0	3.1E+03	n	---	---	---	3.1E+03	1.5E+04	3.9E+03	
Tetraethyl dithiopyrophosphate (sulfotep)	3689-24-5	7.7E+01	n	---	---	---	7.7E+01	3.7E+02	9.7E+01	
Tetraethylene glycol	112-60-7	5.1E+04	n	---	---	---	5.1E+04	2.4E+05	6.4E+04	
Tetraethyl lead	78-00-2	1.5E-02	n	---	---	---	1.5E-02	7.3E-02	1.9E-02	
Tetraethyl pyrophosphate (TEPP)	107-49-3	2.1E+00	n	---	---	---	2.1E+00	#DIV/0!	2.1E+00	
Tetrahydrofuran	109-99-9	7.2E+03	c	7.2E+03	7.2E+03	---	1.5E+05	1.5E+05	---	
Tetrahydropyran	142-68-7	7.2E+03	c	7.2E+03	7.2E+03	---	1.5E+05	1.5E+05	---	
Thallium and compounds (as thallium chloride)	7791-12-0	4.3E+01	n	---	---	---	4.3E+01	5.9E+01	1.5E+02	
Thiofanox	39196-18-4	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Thionazin	297-97-2	1.1E+01	n	---	---	---	1.1E+01	5.1E+01	1.4E+01	
Thiophanate-methyl	23564-05-8	1.2E+04	n	---	---	---	1.2E+04	5.9E+04	1.5E+04	
Thiram	137-26-8	7.7E+02	n	---	---	---	7.7E+02	3.7E+03	9.7E+02	
Tin	7440-31-5	9.2E+04	n	---	---	---	9.2E+04	4.4E+05	1.2E+05	
Titanium	7440-32-6	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	1.0E+06	
Toluene	108-88-3	5.9E+04	n	---	---	---	5.9E+04	5.9E+04	---	
Toluenediamine, 2,4-	95-80-7	4.4E+00	c	4.4E+00	1.7E+01	6.0E+00	---	---	---	
Toluenediamine, 2,6-	823-40-5	3.1E+04	n	---	---	---	3.1E+04	1.5E+05	3.9E+04	
Toluene diisocyanate, 2,4/2,6-	26471-62-5	---	---	---	---	---	---	---	---	
Toluidine, o-	95-53-4	5.9E+01	c	5.9E+01	2.3E+02	8.0E+01	---	---	---	
Toluidine, p-	106-49-0	7.5E+01	c	7.5E+01	2.9E+02	1.0E+02	---	---	---	
Toxaphene	8001-35-2	1.3E+01	c	1.3E+01	5.0E+01	1.7E+01	---	---	---	
TP Silvex, 2,4,5-	93-72-1	1.2E+03	n	---	---	---	1.2E+03	5.9E+03	1.5E+03	
Triademenol	55219-65-3	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Triallate	2303-17-5	2.0E+03	n	---	---	---	2.0E+03	9.6E+03	2.5E+03	
Triaminotrinitrobenzene (TATB)	3058-38-6	4.6E+02	n	4.7E+02	1.8E+03	6.4E+02	4.6E+02	2.2E+03	5.8E+02	
Tributyltin oxide	56-35-9	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Trichlorobenzene, 1,2,3-	87-61-6	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Trichlorobenzene, 1,2,4-	120-82-1	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03	
Trichlorobenzene, 1,3,5-	108-70-3	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Trichloroethane, 1,1,1-	71-55-6	1.5E+05	n	---	---	---	1.5E+05	1.5E+05	---	
Trichloroethane, 1,1,2-	79-00-5	9.6E+02	c	9.6E+02	9.6E+02	---	2.9E+03	2.9E+03	---	
Trichloroethylene	79-01-6	4.4E+03	n	5.0E+03	5.0E+03	---	4.4E+03	4.4E+03	---	
Trichlorofluoromethane	75-69-4	2.2E+05	n	---	---	---	2.2E+05	2.2E+05	---	

### Tier 1 Sediment PCLs<sup>1</sup>

Chemical of Concern	CAS				Carcinogenic			Noncarcinogenic		
		Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	note <sup>3</sup>		Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)	Tot Sed <sub>Comb</sub> <sup>2</sup> (mg/kg)	Sed <sub>Ing</sub> (mg/kg)	Sed <sub>Derm</sub> (mg/kg)
Trichloronate	327-98-0	4.6E+02	n	---	---	---	4.6E+02	2.2E+03	5.8E+02	
Trichlorophenol, 2,3,4-	15950-66-0	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Trichlorophenol, 2,3,5-	933-78-8	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Trichlorophenol, 2,3,6-	933-75-5	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Trichlorophenol, 2,4,5-	95-95-4	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Trichlorophenol, 2,4,6-	88-06-2	1.3E+03	c	1.3E+03	5.0E+03	1.7E+03	---	---	---	
Trichlorophenol, 3,4,5-	609-19-8	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
Trichlorophenoxyacetic acid, 2,4,5-	93-76-5	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03	
Trichloropropane, 1,1,2-	598-77-6	3.7E+03	n	---	---	---	3.7E+03	3.7E+03	---	
Trichloropropane, 1,2,3-	96-18-4	7.8E+00	c	7.8E+00	7.8E+00	---	4.4E+03	4.4E+03	---	
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Triethanolamine	102-71-6	3.1E+04	n	---	---	---	3.1E+04	1.5E+05	3.9E+04	
Triethylamine	121-44-8	---	---	---	---	---	---	---	---	
Triethylene glycol	112-27-6	4.6E+05	n	---	---	---	4.6E+05	1.0E+06	5.8E+05	
Triethylphosphorothioate, O, O, O-	126-68-1	1.3E+00	n	---	---	---	1.3E+00	6.1E+00	1.6E+00	
Trifluralin	1582-09-8	1.1E+03	n	1.8E+03	7.1E+03	2.5E+03	1.1E+03	5.5E+03	1.5E+03	
Trimethylamine	75-50-3	---	---	---	---	---	---	---	---	
Trimethylbenzene, 1,2,3-	526-73-8	3.7E+04	n	---	---	---	3.7E+04	3.7E+04	---	
Trimethylbenzene, 1,2,4-	95-63-6	3.7E+04	n	---	---	---	3.7E+04	3.7E+04	---	
Trimethylbenzene, 1,3,5-	108-67-8	3.7E+04	n	---	---	---	3.7E+04	3.7E+04	---	
Trinitrobenzene, 1,3,5-	99-35-4	4.6E+03	n	---	---	---	4.6E+03	2.2E+04	5.8E+03	
Trinitrophenylmethylnitramine (tetryl; nitramine)	479-45-8	1.5E+03	n	---	---	---	1.5E+03	7.3E+03	1.9E+03	
Trinitrotoluene, 2,4,6-	118-96-7	7.7E+01	n	4.7E+02	1.8E+03	6.4E+02	7.7E+01	3.7E+02	9.7E+01	
Uranium (soluble salts)	7440-61-1	1.6E+03	n	---	---	---	1.6E+03	2.2E+03	5.8E+03	
Valeric acid (pentanoic acid)	109-52-4	7.7E+04	n	---	---	---	7.7E+04	3.7E+05	9.7E+04	
Vanadium	7440-62-2	3.3E+02	n	---	---	---	3.3E+02	5.1E+03	3.5E+02	
Vernam	1929-77-7	1.5E+02	n	---	---	---	1.5E+02	7.3E+02	1.9E+02	
Vinyl acetate	108-05-4	7.3E+05	n	---	---	---	7.3E+05	7.3E+05	---	
Vinyl chloride	75-01-4	3.6E+01	c	3.6E+01	3.6E+01	---	2.2E+03	2.2E+03	---	
Vinylcyclohexane	695-12-5	3.7E+05	n	---	---	---	3.7E+05	3.7E+05	---	
Warfarin	81-81-2	4.6E+01	n	---	---	---	4.6E+01	2.2E+02	5.8E+01	
Xylene, m-	108-38-3	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Xylene, o-	95-47-6	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Xylene, p-	106-42-3	1.0E+06	n	---	---	---	1.0E+06	1.0E+06	---	
Xylenes	1330-20-7	1.5E+05	n	---	---	---	1.5E+05	1.5E+05	---	
Zinc	7440-66-6	7.6E+04	n	---	---	---	7.6E+04	2.2E+05	1.2E+05	
6 C aliphatics (TPH)	NA	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---	
>6-8 C aliphatics (TPH)	NA	4.4E+04	n	---	---	---	4.4E+04	4.4E+04	---	
>8-10 C aliphatics (TPH)	NA	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
>10-12 C aliphatics (TPH)	NA	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
>12-16 C aliphatics (TPH)	NA	1.5E+04	n	---	---	---	1.5E+04	7.3E+04	1.9E+04	
>16-21 C aliphatics (TPH)	NA	3.1E+05	n	---	---	---	3.1E+05	1.0E+06	3.9E+05	
>16-21 C, >21-35 C aliphatics (TPH) (for transformer mineral oil releases only)	NA	2.4E+05	n	---	---	---	2.4E+05	1.0E+06	3.1E+05	
>7-8 C aromatics (TPH)	NA	7.3E+04	n	---	---	---	7.3E+04	7.3E+04	---	
>8-10 C aromatics (TPH)	NA	---	---	---	---	---	2.9E+04	2.9E+04	---	
>10-12 C aromatics (TPH)	NA	---	---	---	---	---	6.1E+03	2.9E+04	7.7E+03	
>12-16 C aromatics (TPH)	NA	---	---	---	---	---	6.1E+03	2.9E+04	7.7E+03	
>16-21 C aromatics (TPH)	NA	---	---	---	---	---	3.7E+03	2.2E+04	4.5E+03	
>21-35 C aromatics (TPH)	NA	---	---	---	---	---	3.7E+03	2.2E+04	4.5E+03	

**Footnotes**

<sup>1</sup>In accordance with §350.72(b), when establishing Tier 1 PCLs for individual COCs for each of the individual and combined human health exposure pathways, the person must evaluate whether the PCLs need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level and hazard index criteria specified in §350.72(c). For COCs which exhibit both carcinogenic and noncarcinogenic characteristics, they shall be evaluated as both a carcinogen and noncarcinogen when determining whether the PCL established for an individual COC for each of the individual and combined human health exposure pathways needs to be adjusted to a lower concentration to meet the cumulative risk and hazard criteria. The person shall then use the lower of the carcinogenic or noncarcinogenic PCL as the Tier 1 human health PCL. In other words, the Tier 1 PCLs provided in this table for an individual COC should not be used as the final Tier 1 human health PCL for any of the individual or combined exposure pathways in cases where there are more than 10 carcinogenic and/or more than 10 noncarcinogenic COCs within a source medium unless it can be demonstrated that further downward adjustment is not necessary to meet the cumulative risk and hazard criteria.

<sup>2</sup>Combined includes ingestion and dermal pathways

<sup>3</sup>c = carcinogenic; n = noncarcinogenic

<sup>4</sup>These compounds are not necessarily of concern from a human health standpoint, therefore calculation of human health-based values is not required. However, aesthetics and ecological criteria would still apply. See table entitled "Compounds for which Calculation of a Human Health PCL is Not Required" available on the TCEQ website at <http://www.tceq.state.tx.us/remediation/trp/trp.html>. All values capped at 1E+06