

**Table 8-2. DMMP COCs and regulatory guidelines**

CHEMICAL	CAS <sup>(1)</sup> NUMBER	USE FOR MARINE PROJECTS. TBT, DIOXINS/FURANS AND GUAIACOLS ARE REQUIRED ONLY ON A PROJECT-SPECIFIC BASIS.			USE FOR FRESHWATER DREDGED MATERIAL WITHIN DMMP JURISDICTION.	
		DMMP MARINE GUIDELINES			SMS FRESHWATER	
		SL	BT	ML	SL1	SL2
<b>METALS (mg/kg dry weight)</b>						
Antimony	7440-36-0	150	---	200	---	---
Arsenic	7440-38-2	57	507.1	700	14	120
Cadmium	7440-43-9	5.1	11.3	14	2.1	5.4
Chromium	7440-47-3	260	260	---	72	88
Copper	7440-50-8	390	1,027	1,300	400	1,200
Lead	7439-92-1	450	975	1,200	360	> 1,300
Mercury	7439-97-6	0.41	1.5	2.3	0.66	0.8
Nickel	7440-02-0	---	---	---	38 <sup>(2)</sup>	110
Selenium	7782-49-2	---	3	---	11	>20
Silver	7440-22-4	6.1	6.1	8.4	0.57	1.7
Zinc	7440-66-6	410	2,783	3,800	3,200	>4,200
<b>ORGANOMETALLIC COMPOUNDS<sup>(3)</sup></b>						
Tributyltin ion (interstitial water; ug/L)	36643-28-4	---	0.15	---	---	---
Tributyltin ion (bulk; ug/kg) <sup>(4)</sup>	36643-28-4	---	73	---	47	320
Monobutyltin ion (bulk; ug/kg)	78763-54-9	---	---	---	540	>4,800
Dibutyltin ion (bulk; ug/kg)	10-53-502	---	---	---	910	130,000
Tetrabutyltin ion (bulk; ug/kg)	1461-25-2	---	---	---	97	>97
<b>PAHs (µg/kg dry weight)</b>						
Naphthalene	91-20-3	2,100	---	2,400	---	---
Acenaphthylene	208-96-8	560	---	1,300	---	---
Acenaphthene	83-32-9	500	---	2,000	---	---
Fluorene	86-73-7	540	---	3,600	---	---
Phenanthrene	85-01-8	1,500	---	21,000	---	---
Anthracene	120-12-7	960	---	13,000	---	---
2-Methylnaphthalene <sup>(5)</sup>	91-57-6	670	---	1,900	---	---
<b>Total LPAH</b>	---	<b>5,200</b>	---	<b>29,000</b>	---	---
Fluoranthene	206-44-0	1,700	4,600	30,000	---	---
Pyrene	129-00-0	2,600	11,980	16,000	---	---
Benz(a)anthracene	56-55-3	1,300	---	5,100	---	---
Chrysene	218-01-9	1,400	---	21,000	---	---
Benzofluoranthenes (b, j, k)	205-99-2	3,200	---	9,900	---	---
	205-82-3					
	207-08-9					
Benzo(a)pyrene	50-32-8	1,600	---	3,600	---	---
Indeno(1,2,3-c,d)pyrene	193-39-5	600	---	4,400	---	---

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		DMMP MARINE GUIDELINES			SMS FRESHWATER	
		SL	BT	ML	SL1	SL2
Dibenz(a,h)anthracene	53-70-3	230	---	1,900	---	---
Benzo(g,h,i)perylene	191-24-2	670	---	3,200	---	---
<b>Total HPAH</b>	---	<b>12,000</b>	---	<b>69,000</b>	---	---
<b>Total PAHs<sup>(6)</sup></b>	---				<b>17,000</b>	<b>30,000</b>
CHLORINATED HYDROCARBONS (µg/kg dry weight)						
1,4-Dichlorobenzene	106-46-7	110	---	120	---	---
1,2-Dichlorobenzene	95-50-1	35	---	110	---	---
1,2,4-Trichlorobenzene	120-82-1	31	---	64	---	---
Hexachlorobenzene (HCB)	118-74-1	22	168	230	---	---
beta-Hexachlorocyclohexane					7.2	11
PHTHALATES (µg/kg dry weight)						
Dimethyl phthalate	131-11-3	71	---	1,400	---	---
Diethyl phthalate	84-66-2	200	---	1,200	---	---
Di-n-butyl phthalate	84-74-2	1,400	---	5,100	380	1,000
Butyl benzyl phthalate	85-68-7	63	---	970	---	---
Bis(2-ethylhexyl) phthalate	117-81-7	1,300	---	8,300	500	22,000
Di-n-octyl phthalate	117-84-0	6,200	---	6,200	39	>1,100
PHENOLS (µg/kg dry weight)						
Phenol	108-95-2	420	---	1,200	120	210
2-Methylphenol	95-48-7	63	---	77	---	---
4-Methylphenol	106-44-5	670	---	3,600	260	2,000
2,4-Dimethylphenol	105-67-9	29	---	210	---	---
Pentachlorophenol	87-86-5	400	504	690	1,200	>1,200
MISCELLANEOUS EXTRACTABLES (µg/kg dry weight)						
Benzyl alcohol	100-51-6	57	---	870	---	---
Benzoic acid	65-85-0	650	---	760	2,900	3,800
Dibenzofuran	132-64-9	540	---	1,700	200	680
Hexachlorobutadiene	87-68-3	11	---	270	---	---
N-Nitrosodiphenylamine	86-30-6	28	---	130	---	---
Carbazole	86-74-8				900	1,100
PESTICIDES & PCBs (µg/kg dry weight)						
4,4'-DDD	72-54-8	16	---	---		
4,4'-DDE	72-55-9	9	---	---		
4,4'-DDT	50-29-3	12	---	---	---	---
sum of 4,4'-DDD, 4,4'-DDE and 4,4'-DDT	---	---	50	69		

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		DMMP MARINE GUIDELINES			SMS FRESHWATER	
		SL	BT	ML	SL1	SL2
2,4'-DDD and 4,4'-DDD	---				310	860
2,4'-DDE and 4,4'-DDE	---	---	---	---	21	33
2,4'-DDT and 4,4'-DDT	---				100	8,100
Aldrin	309-00-2	9.5	---	---	---	---
Total Chlordane (sum of cis-chlordane, trans-chlordane, cis-nonachlor, trans-nonachlor, oxychlordane)	5103-71-9 5103-74-2 5103-73-1 39765-80-5 27304-13-8	2.8	37	---	---	---
Dieldrin	60-57-1	1.9	---	1,700	4.9	9.3
Heptachlor	76-44-8	1.5	---	270	---	---
Endrin ketone	53494-70-5				8.5	>8.5
Total PCBs (Aroclors)	---	130	38 <sup>(7)</sup>	3,100	110	2,500
BULK PETROLEUM HYDROCARBONS (mg/kg)						
TPH - Diesel	---				340	510
TPH - Residual	---				3,600	4,400
CASE-BY-CASE COCs <sup>(8)</sup>	DIOXINS/FURANS					
	Total TEQ (pptr dry wt)	See DMMO <a href="#">Dioxin page</a>	4 - 10 <sup>(9)</sup>	10 <sup>(9)</sup>	---	--- <sup>(9)</sup>

(1) Chemical Abstract Service Registry Number

(2) This Nickel SL1 value is based on the 90<sup>th</sup> percentile of soil background data from WA state (Ecology, 1994), and was adopted by the DMMP agencies at the 2014 SMARM (DMMP/RSET, 2014b)

(3) TBT is not a standard COC for marine projects, although it may be required on a case-by-case basis (see Section 8.4). All butyl tins are required for freshwater projects.

(4) Bulk sediment measurement of TBT is recommended for dredged material and z-sample evaluations, although porewater TBT remains an option. See Section 8.4.2 for further details.

(5) 2-Methylnaphthalene is not included in the summation for total LPAH for marine projects.

(6) Total PAHs for freshwater projects include the sum of all PAHs listed, plus 1-methylnaphthalene.

(7) This value is normalized to total organic carbon, and is expressed in mg/kg carbon.

(8) Analyses required only when there is sufficient reason-to-believe for presence in a given project or location.

(9) Puget Sound only; see the text (Section 8.3) for other areas in Washington State.

Analytes printed in blue apply ONLY to freshwater.