

## Sediment Contaminant Limits ERL's&amp;ERM's

LIMITS FOR DREDGE MATERIALS									
SOURCE	NAS	WDE	MDEP	WSSQC	ER-L	ER-M	AET	Degree of Confidence	
<b>Polynuclear Aromatics(ppb-dw)</b>									
benzo-a-pyrene	1800		NV	1980	430	1600	700	M/M	
naphthalene	42		NV	7400	160	2100	500	M/H	
phenanthrene	56		NV	2000	240	1500	260	M/M	
chrysene	460		NV	2200	384	2800	900	M/M	
fluorene	28		NV	460	19	540	350	L/L	
acenaphthene	66		NV	320	16	500	150	L/L	
anthracene	44		NV	4400	85.3	1100	300	L/M	
benzo-a-anthracene	220		NV	2200	261	1600	550	L/M	
acenaphthylene	24		NV		44	640			
indeno (1,2,3,-CD) pyrene	24000		NV						
benzo fluoranthene	5000		NV						
dibenz (a,h) anthracene			NV		63.4	260	100	M/M	
fluoranthene			NV	3200	600	5100	1000	H/H	
2 methyl naphthalene			NV	760	70	670	300	L/M	
pyrene			NV	20000	665	2600	1000	M/M	
Low molecular weight PAHs					552	3160			
High molecular weight PAHs					1700	9600			
Total PAHs			NV	910.62	4022	44792	22000	L/L	
<b>Metals (ppm-dw)</b>									
An					2	25			
As	33	57	7	5.7	8.2	70	50	L/M	
Cd	31	5.1	2.5	5.1	1.2	9.6	5	H/H	
Cu	136	390	83	390	34	270	300	H/H	
Cr	25	260	112	26	81	370	No	M/M	
Pb	132	450	83	450	46.7	218	300	M/H	
Hg	0.8	0.41	0.5	0.41	0.15	0.71	1	M/H	
Ni	20	NV	36		20.9	51.6	NSD	M/M	
Ag	NV	6.1	NV	6.1	1	3.7	1.7	M/M	
Zn	760	410	NV	410	150	410	160	H/H	
<b>MISCELLANEOUS</b>									
CN	0.1	NV	NV						
<b>Chlorinated Hydrocarbons</b>									

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PCBs	0.28(ppm)	12	1 49	240	22.7(ppb)		180(ppb)	370	M/M
Lindane	0.012	NV	NV					NSD	NA
DDD	13	NV	NV		2		20	NSD	M/L
DDE	28	NV	NV		2		15	NSD	L/L
p,p'-DDE					2.2		27		
Aldrin	0.021	NV	NV		NA		NA	NSD	NA
Isophrone	9.6	NV	NV						
DDT	0.006	NV	NV		1.58		46.1	6	L/L
Dieldrin			NV		0.02		8	No	L/L
Mirex			NV		NA		NA	NSD	NA
Endrin			NV		0.02		45	NSD	L/L
Chlordane	0.02	NV	NV		0.5		6	2	L/L
Toxaphene	0.02	NV	NV						
Heptachlor		NV	NV					NSD	NA
hexachloroethane	14.4		NV						
hexachlorobutadiene	1.28		NV						
tetrachloroethylene	1.8		NV						
trichloroethylene	6.4		NV						
dichlorobenzene	2.8		NV						
methylene chloride	2		NV						
			NV						
<b>Monoaromatic hydrocarbons</b>			NV						
toulene	10		NV						
benzene	1.36		NV						
ethylbenzene	5.6		NV						
nitrobenzene	6.6		NV						
dinitrobenzene	0.88		NV						
			NV						
<b>Phthalates</b>			NV						
butylbenzyl phthalate	220		NV						
di-N-butylphthalate	2000		NV						
diethylphthalate	1.28		NV						
dimehtylphthalate	1.96		NV						
NAS - National Academy of Science Wde - Washington Dept. of Ecology MDEP - Maine Department of Enviromental Protection WSSQC - Washington State Sediment Quality Criteria calculated ppb dry wt. based on 2% TOC ER-L - End Range Low ER-M - End Range Medium ART - Apparent Effects Threshold L - Low M- Medium H - High									

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SOURCE	NAS	WDE	MDEP	WSSQC	ER-L		ER-M	AET	Confidence
NSD-Not Sufficient Data NA- Not Available TEL-Threshold effect level									