Table 4.1-1

Sediment Decision Unit (SDU) Summary Information

Portland Harbor Superfund Site

Portland, OR

SDU ID	Location	Description	Length (mile)	Acres	SDU Type/Basis	Key Focused COCs
RM2E	RM 1.6 - 2.8 East	Evraz Oregon Steel Mill	1.3	102.8	Focused COC-based	PCBs
RM3.5E	RM 3.1-4.1 East	Schnitzer	1	51.3	Focused COC-based	PCBs
RM4.5E	RM 4.2 - 5.0 East	Terminal 4	0.9	43.3	Focused COC-based	PAHs/PCBs
RM5.5E	RM 5.0 - 6.0 East	Mar Com	0.9	30	Multiple COC-based	PAHs/PCBs
RM6.5E	RM 6.0 - 7.0 East	Willamette Cove	1.1	89.2	Focused COC-based	PCBs/PeCDD
SwanIs	RM 8.1 - 8.9	Swan Island Lagoon	1.1	117	Focused COC-based	PCBs
RM11E	RM 10.6 - 11.6 East	River Mile 11 East	1.1	28.8	Focused COC-based	PCBs/PeCDD
RM3.9W	Benthic Risk Area	Kinder Morgan	1.1	49.3	Multiple COC-based	PAHs/DDx
RM5W	Benthic Risk Area	Nustar	1.1	24.6	Multiple COC-based	PAHs/DDx
RM6W	RM 5.6 - 6.5 West	Gasco	1	38.1	Focused COC-based	PAHs
RM7W	RM 6.6 - 7.8 West	Arkema	1.4	68.3	Focused COC-based	DDx/PeCDF/TCDD
RM9W	RM 8.3 - 9.7 West	Shaver to Fireboat Cove	1.5	67.9	Focused COC-based	PCBs/PeCDD/TCDD
RM6Nav	RM 5.1 - 6.5 Nav	Navigation Channel	1.7	147	Focused COC-based	PAHs

Notes:

COC - Contaminant of Concern

DDx - Sum of 2,4'- and 4,4'-dichloro-diphenyl-dichloroethane (DDD), 2,4'- and 4,4'-dichloro-diphenyl-dichloroethene (DDE), and 2,4'- and 4,4'-dichloro-diphenyl-trichloroethane (DDT)

PAH - Polycyclic aromatic hydrocarbon

PCB - Polychlorinated biphenyl

PeCDD - 1,2,3,7,8-Pentachlorodibenzo-p-dioxin

PeCDF - 2,3,4,7,8-Pentachlorodibenzofuran

RM - River Mile

SDU - Sediment Decision Unit

TCDD - 2,3,7,8-Tetrachlorodibenzo-p-dioxin

Table 4.2-1
Summary of Rolling RM and SDUs at t=0 by COC for All RAOs
Portland Harbor Superfund Site
Portland, OR

PRGs by COC				Alternative met by PRG at t=0			
					Rolling RM		
Contaminant	**RAO**	**Receptor**	**PRG**	**Scale**	**E**	**N**	**W**
Aldrin	RAO 1		NA	0.5 RM			
	RAO 2	Subsistence Fisher	2	1 RM	G	A	D
	RAO 5		NA	0.2 RM			
	RAO 6		NA	1 RM			
Arsenic	RAO 1	Background	3	0.5 RM	G+	NA	G+
	RAO 2		NA	1 RM			
	RAO 5		NA	0.2 RM			
	RAO 6		NA	1 RM			
BEHP	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	Smallmouth Bass	135	0.2 RM	G+	G+	G+
	RAO 6		NA	1 RM			

Cadmium	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	5	0.2 RM	A	A	A
	RAO 6		NA	1 RM			
Chlordanes	RAO 1		NA	0.5 RM			
	RAO 2	Subsistence Fisher	1.5	1 RM	G	G	F
	RAO 5	PEC	18	0.2 RM	B	A	B
	RAO 6		NA	1 RM			
Copper	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	149	0.2 RM	F	A	E
	RAO 6		NA	1 RM			
DDx	RAO 1		NA	0.5 RM			
	RAO 2	Subsistence Fisher	6	1 RM	G+	G+	G+
	RAO 5	PEC	63	0.2 RM	A	A	G+
	RAO 6	Spotted Sandpiper	3,000	1 RM	A	A	A

DDE	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	31	0.2 RM	A	A	D
	RAO 6	Osprey (egg)	2.8	1 RM	G	F	F
Dieldrin	RAO 1		NA	0.5 RM			
	RAO 2	Background	0.3	1 RM	G+	G+	G+
	RAO 5	PEC	62	0.2 RM	A	A	A
	RAO 6		NA	1 RM			
Hexchlorobenze	RAO 1		NA	0.5 RM			
	RAO 2	Background	0.3	1 RM	G+	G+	G+
	RAO 5		NA	0.2 RM			
	RAO 6		NA	1 RM			

Lindane	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	5	0.2 RM	F	A	D
	RAO 6		NA	1 RM			
Lead	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	128	0.2 RM	G	A	B
	RAO 6		NA	1 RM			
Mercury	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	1.1	0.2 RM	B	A	A
	RAO 6		NA	1 RM			
PCBs	RAO 1	Tribal Fisher	370	0.5 RM	B	NA	B
	RAO 2	Background	9	1 RM	G+	G+	G+
	RAO 5	Smallmouth Bass	64	0.2 RM	F	F	F
	RAO 6	Mink	36	1 RM	F	F	F

PAHs	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	23,000	0.2 RM	D	G+	D
	RAO 6		NA	1 RM			
cPAH	RAO 1	Tribal Fisher	106	0.5 RM	G+	NA	G+
	RAO 2	Subsistence Fisher	3,950	1 RM	A	D	D
	RAO 5		NA	0.2 RM			
	RAO 6		NA	1 RM			
HxCDF	RAO 1	Tribal Fisher	0.1	0.5 RM	A	A	G+
	RAO 2	Background ND	0.001	1 RM	G+	G+	G+
	RAO 5		NA	0.2 RM			
	RAO 6	River Otter	0.03	1 RM	A	A	G+
PeCDD	RAO 1	Tribal Fisher	0.01	0.5 RM	A	A	A

	RAO 2	Subsistence Fisher	0.0001	1 RM	G+	G+	G+
	RAO 5		NA	0.2 RM			
	RAO 6	Osprey (egg)	0.001	1 RM	B	A	A
PeCDF	RAO 1		0.04	0.5 RM	A	A	B
	RAO 2	Subsistence Fisher	0.0002	1 RM	G+	G+	G+
	RAO 5		NA	0.2 RM			
	RAO 6	Osprey (egg)	0.004	1 RM	B	A	G+
TCDF	RAO 1		0.1	0.5 RM	A	A	B
	RAO 2	Subsistence Fisher	0.0004	1 RM	G+	G+	G+
	RAO 5		NA	0.2 RM			
	RAO 6	Osprey (egg)	0.004	1 RM	A	A	G+
TCDD	RAO 1	Tribal Fisher	0.01	0.5 RM	A	A	A
	RAO 2	Subsistence Fisher	0.0001	1 RM	D	G	G
	RAO 5		NA	0.2 RM			
	RAO 6	Osprey (egg)	0.0008	1 RM	A	A	B

TBT	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	Worm	24	0.2 RM	A	A	A
	RAO 6		NA	1 RM			
Zinc	RAO 1		NA	0.5 RM			
	RAO 2		NA	1 RM			
	RAO 5	PEC	459	0.2 RM	A	A	B
	RAO 6		NA	1 RM			

	SDU SWAC at t=0							
		Alternative						
SIL	SDU	A	B	D	E	F	G	Units
	RM2E	0.8	0.7	0.7	0.7	0.6	0.4	ppb
A	RM3.5E	0.5	0.4	0.4	0.3	0.3	0.2	ppb
	RM4.5E	5.7	5.7	4.6	3.5	2.1	1.0	ppb
	RM5.5E	0.5	0.5	0.5	0.5	0.3	0.2	ppb
	RM6.5E	0.4	0.3	0.3	0.3	0.3	0.2	ppb
	SwanIs	0.5	0.0	0.0	0.0	0.0	0.0	ppb
	RM11E	0.3	0.2	0.2	0.2	0.1	0.1	ppb
	RM3.9W	0.7	0.7	0.7	0.7	0.5	0.3	ppb
	RM5W	0.3	0.3	0.3	0.3	0.3	0.1	ppb
	RM6Nav	1.1	0.8	0.6	0.5	0.3	0.2	ppb
	RM6W	2.0	1.1	0.7	0.5	0.3	0.2	ppb
	RM7W	5.6	2.4	1.5	1.1	0.7	0.4	ppb
	RM9W	1.9	1.2	1.1	0.7	0.3	0.1	ppb
B	RM2E	4	4	4	4	3	3	ppm
	RM3.5E	4	4	3	3	3	2	ppm
	RM4.5E	4	4	4	3	2	1	ppm
	RM5.5E	4	4	4	4	3	2	ppm
	RM6.5E	4	3	3	3	2	2	ppm
	SwanIs	7	1	1	1	1	1	ppm
	RM11E	3	2	2	2	1	1	ppm
	RM3.9W	5	5	5	5	4	3	ppm
	RM5W	4	4	4	3	3	2	ppm
	RM6Nav	3	3	2	2	1	1	ppm
	RM6W	5	3	3	2	2	1	ppm
	RM7W	5	4	4	3	2	1	ppm
	RM9W	6	5	5	3	1	1	ppm
	RM2E	104	96	92	86	75	66	ppb
	RM3.5E	1072	793	692	427	146	79	ppb
A	RM4.5E	223	220	192	168	71	34	ppb
	RM5.5E	171	171	171	161	102	51	ppb
	RM6.5E	101	80	73	71	54	45	ppb
	SwanIs	1820	119	119	119	117	112	ppb
	RM11E	137	122	109	90	60	39	ppb
	RM3.9W	553	553	553	544	428	180	ppb
	RM5W	70	69	66	63	47	30	ppb
	RM6Nav	245	182	124	88	45	26	ppb
	RM6W	315	163	122	77	36	20	ppb
	RM7W	348	303	287	260	191	105	ppb

	RM9W	1147	904	596	206	75	54	ppb
	RM2E	0.4	0.3	0.3	0.3	0.2	0.2	ppm
	RM3.5E	0.3	0.3	0.2	0.2	0.2	0.1	ppm
A	RM4.5E	0.7	0.6	0.5	0.4	0.2	0.1	ppm
	RM5.5E	0.3	0.3	0.3	0.2	0.2	0.1	ppm
	RM6.5E	0.3	0.2	0.2	0.2	0.1	0.1	ppm
	SwanIs	0.5	0.0	0.0	0.0	0.0	0.0	ppm
	RM11E	0.2	0.1	0.1	0.1	0.1	0.0	ppm
	RM3.9W	0.3	0.3	0.3	0.3	0.2	0.2	ppm
	RM5W	0.3	0.3	0.3	0.3	0.2	0.1	ppm
	RM6Nav	0.2	0.1	0.1	0.1	0.0	0.0	ppm
	RM6W	0.3	0.2	0.1	0.1	0.1	0.0	ppm
	RM7W	0.5	0.4	0.4	0.3	0.2	0.1	ppm
	RM9W	0.5	0.4	0.3	0.2	0.1	0.1	ppm
	RM2E	2.0	1.8	1.7	1.7	1.4	1.0	ppb
A	RM3.5E	1.1	0.7	0.6	0.5	0.4	0.3	ppb
A	RM4.5E	6.5	6.4	5.3	4.2	2.4	1.1	ppb
	RM5.5E	2.1	2.1	2.1	1.9	1.1	0.6	ppb
	RM6.5E	1.0	0.7	0.7	0.6	0.5	0.4	ppb
	SwanIs	2.3	0.1	0.1	0.1	0.1	0.1	ppb
	RM11E	19.8	8.8	5.2	2.9	1.8	1.2	ppb
	RM3.9W	1.5	1.5	1.5	1.4	1.2	0.7	ppb
	RM5W	1.0	1.0	0.9	0.9	0.7	0.4	ppb
	RM6Nav	1.8	1.4	1.0	0.8	0.4	0.2	ppb
	RM6W	7.1	3.1	1.9	1.4	0.8	0.5	ppb
	RM7W	9.9	4.4	3.1	2.1	1.2	0.6	ppb
	RM9W	7.1	4.4	4.0	2.9	1.0	0.5	ppb
	RM2E	38	35	34	33	29	25	ppm
	RM3.5E	36	32	30	27	21	17	ppm
B	RM4.5E	36	36	31	27	17	9	ppm
	RM5.5E	82	82	82	78	40	20	ppm
	RM6.5E	51	41	37	36	23	19	ppm
	SwanIs	141	14	14	14	13	12	ppm
	RM11E	41	34	27	20	12	7	ppm
	RM3.9W	38	38	38	38	36	25	ppm
	RM5W	34	34	33	31	25	17	ppm
	RM6Nav	27	23	19	16	9	5	ppm
	RM6W	48	33	28	25	17	8	ppm
	RM7W	40	29	25	21	16	8	ppm
	RM9W	82	63	51	34	16	11	ppm
	RM2E	9	8	8	7	6	4	ppb
B	RM3.5E	9	7	6	6	4	3	ppb
A	RM4.5E	15	14	12	10	6	3	ppb
A	RM5.5E	13	13	13	12	6	3	ppb
	RM6.5E	10	8	6	6	5	5	ppb
	SwanIs	15	1	1	1	1	1	ppb

	RM11E	26	14	10	8	4	2	ppb
	RM3.9W	17	17	17	17	16	8	ppb
	RM5W	15	15	14	13	11	5	ppb
	RM6Nav	12	8	6	5	3	1	ppb
	RM6W	79	27	22	18	9	4	ppb
	RM7W	636	96	64	40	26	19	ppb
	RM9W	37	22	20	13	5	3	ppb
	RM2E	2.5	2.3	2.2	2.1	1.8	1.5	ppb
	RM3.5E	2.3	1.9	1.7	1.5	1.1	0.9	ppb
A	RM4.5E	3.1	3.1	2.8	2.5	1.6	0.8	ppb
B	RM5.5E	2.8	2.8	2.8	2.5	1.6	0.9	ppb
	RM6.5E	2.0	1.6	1.5	1.4	1.2	1.0	ppb
	SwanIs	3.3	0.2	0.2	0.2	0.2	0.2	ppb
	RM11E	2.0	1.2	1.0	0.9	0.6	0.4	ppb
	RM3.9W	3.2	3.2	3.2	3.2	2.9	2.1	ppb
	RM5W	2.7	2.7	2.6	2.5	1.9	1.1	ppb
	RM6Nav	2.8	2.1	1.6	1.3	0.6	0.4	ppb
	RM6W	15.2	3.9	2.9	2.2	1.2	0.7	ppb
	RM7W	49.1	14.9	9.3	5.4	3.2	1.9	ppb
	RM9W	15.4	7.2	6.6	4.3	1.7	1.0	ppb
	RM2E	0.9	0.8	0.8	0.7	0.6	0.4	ppb
G+	RM3.5E	0.3	0.3	0.3	0.2	0.2	0.1	ppb
A	RM4.5E	6.0	6.0	4.8	3.8	2.3	1.1	ppb
	RM5.5E	0.7	0.7	0.7	0.6	0.4	0.2	ppb
	RM6.5E	0.3	0.2	0.2	0.2	0.1	0.1	ppb
	SwanIs	1.2	0.05	0.05	0.05	0.05	0.05	ppb
	RM11E	2.6	0.8	0.6	0.4	0.3	0.2	ppb
	RM3.9W	0.6	0.6	0.6	0.6	0.4	0.2	ppb
	RM5W	0.4	0.4	0.4	0.4	0.3	0.2	ppb
	RM6Nav	1.0	0.8	0.5	0.4	0.2	0.1	ppb
	RM6W	3.5	1.8	1.0	0.6	0.3	0.2	ppb
	RM7W	8.0	3.1	1.7	1.1	0.7	0.4	ppb
	RM9W	2.6	1.5	1.4	1.0	0.3	0.2	ppb
	RM2E	3.0	2.7	2.6	2.4	2.0	1.7	ppb
G+	RM3.5E	3.8	3.5	3.3	3.1	2.6	2.0	ppb
	RM4.5E	28.6	28.2	17.1	12.0	6.1	3.1	ppb
	RM5.5E	2.6	2.6	2.6	2.4	1.5	1.0	ppb
	RM6.5E	2.5	1.9	1.7	1.6	1.4	1.1	ppb
	SwanIs	8.5	1.0	1.0	1.0	1.0	0.9	ppb
	RM11E	1.6	1.5	1.5	1.2	0.8	0.5	ppb
	RM3.9W	84.5	84.5	84.5	83.1	64.3	24.8	ppb
	RM5W	3.9	3.9	3.8	3.6	3.1	2.2	ppb
	RM6Nav	17.6	8.8	5.5	4.5	3.3	2.4	ppb
	RM6W	28.7	7.3	5.4	3.7	2.2	1.5	ppb
	RM7W	37.1	33.7	31.6	26.9	20.9	9.4	ppb
	RM9W	91.2	66.7	50.4	4.2	3.1	2.8	ppb

	RM2E	1	1	0	0	0	0	ppb
	RM3.5E	0	0	0	0	0	0	ppb
A	RM4.5E	6	6	5	4	2	1	ppb
	RM5.5E	1	1	1	1	1	0	ppb
	RM6.5E	1	1	1	1	1	1	ppb
	SwanIs	2	0	0	0	0	0	ppb
	RM11E	0	0	0	0	0	0	ppb
	RM3.9W	1	1	1	1	1	1	ppb
	RM5W	1	1	1	1	1	0	ppb
	RM6Nav	1	1	1	1	0	0	ppb
	RM6W	3	1	1	1	0	0	ppb
	RM7W	6	2	1	1	1	0	ppb
	RM9W	1	1	1	0	0	0	ppb
	RM2E	16	13	12	12	10	8	ppm
	RM3.5E	20	16	14	11	9	7	ppm
A	RM4.5E	73	67	43	33	15	6	ppm
	RM5.5E	43	43	43	40	22	13	ppm
	RM6.5E	119	74	57	54	47	34	ppm
	SwanIs	38	2	2	2	2	2	ppm
	RM11E	43	35	30	23	15	8	ppm
	RM3.9W	15	15	15	15	14	10	ppm
	RM5W	18	18	18	17	13	9	ppm
	RM6Nav	12	10	8	7	3	2	ppm
	RM6W	27	14	12	10	6	3	ppm
	RM7W	29	19	16	12	8	4	ppm
	RM9W	66	48	38	22	9	6	ppm
	RM2E	0.1	0.1	0.1	0.1	0.1	0.0	ppm
	RM3.5E	0.1	0.1	0.1	0.0	0.0	0.0	ppm
A	RM4.5E	0.1	0.1	0.1	0.1	0.0	0.0	ppm
	RM5.5E	0.1	0.1	0.1	0.1	0.1	0.1	ppm
	RM6.5E	0.6	0.4	0.3	0.3	0.3	0.2	ppm
	SwanIs	0.1	0.0	0.0	0.0	0.0	0.0	ppm
	RM11E	0.1	0.0	0.0	0.0	0.0	0.0	ppm
	RM3.9W	0.1	0.1	0.1	0.1	0.1	0.0	ppm
	RM5W	0.1	0.1	0.1	0.1	0.0	0.0	ppm
	RM6Nav	0.1	0.0	0.0	0.0	0.0	0.0	ppm
	RM6W	0.1	0.0	0.0	0.0	0.0	0.0	ppm
	RM7W	0.1	0.1	0.1	0.0	0.0	0.0	ppm
	RM9W	0.1	0.1	0.1	0.1	0.0	0.0	ppm
B	RM2E	172	63	49	38	24	18	ppb
G+	RM3.5E	151	80	61	40	24	17	ppb
B	RM4.5E	80	80	60	43	21	10	ppb
B	RM5.5E	62	62	62	53	24	11	ppb
	RM6.5E	83	29	26	25	15	11	ppb
	SwanIs	521	16	16	16	16	15	ppb
	RM11E	445	161	98	53	25	17	ppb

	RM3.9W	23	23	23	23	20	15	ppb
	RM5W	27	27	25	24	17	10	ppb
	RM6Nav	30	27	21	17	7	3	ppb
	RM6W	40	23	20	16	9	4	ppb
	RM7W	143	71	49	34	21	9	ppb
	RM9W	303	132	94	53	21	15	ppb
	RM2E	3,028	2,760	1,914	1,591	1,152	573	ppb
	RM3.5E	1,465	928	834	743	627	519	ppb
A	RM4.5E	21,640	20,455	11,508	7,071	2,502	1,117	ppb
	RM5.5E	4,692	4,684	4,684	4,313	2,884	1,141	ppb
	RM6.5E	2,802	2,570	2,208	1,904	1,504	1,170	ppb
	SwanIs	2,806	126	126	126	122	116	ppb
	RM11E	518	411	358	286	175	90	ppb
	RM3.9W	4,006	4,006	4,006	3,886	3,062	1,639	ppb
	RM5W	18,989	17,078	9,186	6,519	3,177	1,616	ppb
	RM6Nav	190,734	31,172	14,997	10,131	6,278	5,241	ppb
	RM6W	197,802	24,629	13,917	10,175	6,602	5,427	ppb
	RM7W	3,996	2,574	2,152	1,618	580	293	ppb
	RM9W	1,869	1,456	1,177	758	280	177	ppb
B	RM2E	222	204	164	146	111	57	ppb
A	RM3.5E	167	117	107	95	78	64	ppb
	RM4.5E	3,224	3,031	1,682	1,040	359	160	ppb
	RM5.5E	666	665	665	619	433	165	ppb
	RM6.5E	314	297	269	232	182	141	ppb
	SwanIs	277	13	13	13	13	12	ppb
	RM11E	54	42	37	29	17	9	ppb
	RM3.9W	492	492	492	481	391	214	ppb
	RM5W	1,613	1,469	865	647	339	173	ppb
	RM6Nav	13,959	2,963	1,391	928	511	400	ppb
	RM6W	16,708	2,483	1,442	1,035	641	486	ppb
	RM7W	359	228	193	152	57	26	ppb
	RM9W	169	134	107	72	25	15	ppb
A	RM2E	0.0004	0.0004	0.0003	0.0003	0.0002	0.0002	ppb
A	RM3.5E	0.001	0.0008	0.0006	0.0005	0.0004	0.0003	ppb
	RM4.5E	0.006	0.006	0.004	0.003	0.001	0.0007	ppb
A	RM5.5E	0.007	0.007	0.007	0.007	0.005	0.003	ppb
	RM6.5E	0.006	0.002	0.001	0.001	0.001	0.0009	ppb
	SwanIs	0.003	0.0002	0.0002	0.0002	0.0002	0.0002	ppb
	RM11E	0.001	0.001	0.0009	0.0007	0.0004	0.0003	ppb
	RM3.9W	0.0009	0.0009	0.0009	0.0009	0.0008	0.0006	ppb
	RM5W	0.003	0.003	0.003	0.003	0.002	0.001	ppb
	RM6Nav	0.002	0.002	0.002	0.001	0.001	0.0006	ppb
	RM6W	0.004	0.003	0.002	0.002	0.001	0.0005	ppb
	RM7W	1.3	0.09	0.07	0.05	0.04	0.03	ppb
	RM9W	0.002	0.001	0.001	0.0006	0.0003	0.0002	ppb
A	RM2E	0.00007	0.00006	0.00006	0.00005	0.00004	0.00003	ppb

B	RM3.5E	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	ppb
	RM4.5E	0.0001	0.0001	0.0001	0.0001	0.00005	0.00003	ppb
A	RM5.5E	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	ppb
	RM6.5E	0.001	0.0003	0.0002	0.0002	0.0002	0.0001	ppb
	SwanIs	0.0002	0.00002	0.00002	0.00002	0.00002	0.00002	ppb
	RM11E	0.0005	0.0004	0.0003	0.0003	0.0002	0.0001	ppb
	RM3.9W	0.0001	0.0001	0.0001	0.0001	0.0001	0.00008	ppb
	RM5W	0.0002	0.0002	0.0001	0.0001	0.0001	0.00007	ppb
	RM6Nav	0.0002	0.0002	0.0002	0.0001	0.00009	0.00007	ppb
	RM6W	0.0001	0.00008	0.00007	0.00006	0.00004	0.00002	ppb
	RM7W	0.0004	0.0001	0.00009	0.00007	0.00005	0.00003	ppb
	RM9W	0.0004	0.0003	0.0002	0.0001	0.00007	0.00005	ppb
A	RM2E	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	ppb
B	RM3.5E	0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
	RM4.5E	0.001	0.0012	0.0010	0.0007	0.0003	0.0001	ppb
A	RM5.5E	0.002	0.002	0.002	0.002	0.001	0.0008	ppb
	RM6.5E	0.003	0.0009	0.0006	0.0006	0.0005	0.0004	ppb
	SwanIs	0.0005	0.00005	0.00005	0.00005	0.00005	0.00004	ppb
	RM11E	0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
	RM3.9W	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	ppb
	RM5W	0.0008	0.0008	0.0008	0.0007	0.0006	0.0004	ppb
	RM6Nav	0.001	0.0009	0.0008	0.0006	0.0004	0.0003	ppb
	RM6W	0.001	0.0009	0.0006	0.0005	0.0002	0.0001	ppb
	RM7W	0.2	0.01	0.01	0.007	0.006	0.005	ppb
	RM9W	0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb
A	RM2E	0.0004	0.0003	0.0003	0.0003	0.0002	0.0002	ppb
A	RM3.5E	0.0006	0.0004	0.0003	0.0002	0.0002	0.0002	ppb
	RM4.5E	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	ppb
A	RM5.5E	0.002	0.002	0.002	0.002	0.001	0.0007	ppb
	RM6.5E	0.0010	0.0005	0.0003	0.0003	0.0003	0.0002	ppb
	SwanIs	0.0003	0.00004	0.00004	0.00004	0.00004	0.00004	ppb
	RM11E	0.0003	0.0002	0.0002	0.0001	0.00007	0.00005	ppb
	RM3.9W	0.0006	0.0006	0.0006	0.0006	0.0006	0.0004	ppb
	RM5W	0.001	0.001	0.001	0.001	0.0008	0.0006	ppb
	RM6Nav	0.002	0.002	0.001	0.001	0.0007	0.0004	ppb
	RM6W	0.002	0.001	0.0009	0.0007	0.0003	0.0002	ppb
	RM7W	0.3	0.02	0.02	0.01	0.009	0.007	ppb
	RM9W	0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb
A	RM2E	0.00003	0.00003	0.00003	0.00003	0.00002	0.00002	ppb
A	RM3.5E	0.00006	0.00005	0.00003	0.00003	0.00002	0.00002	ppb
	RM4.5E	0.00003	0.00003	0.00002	0.00002	0.00001	0.00001	ppb
A	RM5.5E	0.00004	0.00004	0.00004	0.00004	0.00003	0.00002	ppb
	RM6.5E	0.0002	0.00004	0.00002	0.00002	0.00002	0.00001	ppb
	SwanIs	0.00007	0.000008	0.000008	0.000008	0.000008	0.000007	ppb
	RM11E	0.0002	0.0001	0.0001	0.00009	0.00006	0.00004	ppb
	RM3.9W	0.00008	0.00008	0.00008	0.00008	0.00008	0.00005	ppb

	RM5W	0.0001	0.0001	0.0001	0.0001	0.00009	0.00006	ppb
	RM6Nav	0.00007	0.00006	0.00005	0.00005	0.00003	0.00002	ppb
	RM6W	0.00005	0.00003	0.00003	0.00003	0.00002	0.00001	ppb
	RM7W	0.0008	0.0001	0.00008	0.00007	0.00005	0.00003	ppb
	RM9W	0.0005	0.0003	0.0003	0.0001	0.00008	0.00006	ppb
	RM2E	0.003	0.002	0.002	0.002	0.002	0.002	ppm
	RM3.5E	0.093	0.087	0.086	0.083	0.059	0.037	ppm
A	RM4.5E	0.036	0.035	0.032	0.028	0.021	0.013	ppm
	RM5.5E	0.116	0.116	0.116	0.110	0.069	0.042	ppm
	RM6.5E	0.087	0.073	0.068	0.066	0.053	0.046	ppm
	SwanIs	2.479	0.353	0.353	0.353	0.342	0.315	ppm
	RM11E	0.008	0.007	0.006	0.005	0.003	0.002	ppm
	RM3.9W	0.029	0.029	0.029	0.029	0.028	0.025	ppm
	RM5W	0.012	0.012	0.011	0.010	0.008	0.005	ppm
	RM6Nav	0.092	0.072	0.052	0.042	0.022	0.012	ppm
	RM6W	0.053	0.019	0.014	0.011	0.007	0.004	ppm
	RM7W	0.015	0.013	0.012	0.010	0.007	0.004	ppm
	RM9W	0.024	0.017	0.011	0.005	0.002	0.002	ppm
	RM2E	114	100	95	90	78	66	ppm
	RM3.5E	132	111	99	85	68	56	ppm
A	RM4.5E	158	154	123	102	54	27	ppm
	RM5.5E	137	137	137	132	81	44	ppm
	RM6.5E	109	83	74	73	60	50	ppm
	SwanIs	251	18	18	18	18	17	ppm
	RM11E	94	76	66	51	32	20	ppm
	RM3.9W	100	100	100	99	94	73	ppm
	RM5W	101	100	94	90	69	47	ppm
	RM6Nav	86	72	58	49	27	16	ppm
	RM6W	122	76	64	56	36	19	ppm
	RM7W	116	90	79	65	46	22	ppm
	RM9W	256	205	162	97	43	29	ppm

Table 4.2-2
Summary of Rolling RM and SDUs at t=0 by COC for RAO 1
Portland Harbor Superfund Site
Portland, OR

PRGs by COC				Alternative met by PRG at t=0				
				Rolling RM				
Contaminant	**RAO**	**Receptor**	**PRG**	**E**	**N**	**W**	**SIL**	**SDU**
Arsenic	RAO 1	Background	3	G+	NA	G+	B	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs
								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W
								RM9W
PCBs	RAO 1	Tribal Fisher	370	B	NA	B	B	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs
								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W
								RM9W
cPAH	RAO 1	Tribal Fisher	106	G+	NA	G+	B	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs
								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W

								RM9W
HxCDF	RAO 1	Tribal Fisher	0.1	A	A	G+	A	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs
								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W
								RM9W
PeCDD	RAO 1	Tribal Fisher	0.01	A	A	A	A	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs
								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W
								RM9W
PeCDF	RAO 1	Tribal Fisher	0.04	A	A	B	A	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs
								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W
								RM9W
TCDF	RAO 1	Tribal Fisher	0.1	A	A	B	A	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs

								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W
								RM9W
TCDD	RAO 1	Tribal Fisher	0.01	A	A	A	A	RM2E
								RM3.5E
								RM4.5E
								RM5.5E
								RM6.5E
								SwanIs
								RM11E
								RM3.9W
								RM5W
								RM6Nav
								RM6W
								RM7W
								RM9W

SDU SWAC at t=0						
Alternative						
A	B	D	E	F	G	Units
4	4	4	4	3	3	ppm
4	4	3	3	3	2	ppm
4	4	4	3	2	1	ppm
4	4	4	4	3	2	ppm
4	3	3	3	2	2	ppm
7	1	1	1	1	1	ppm
3	2	2	2	1	1	ppm
5	5	5	5	4	3	ppm
4	4	4	3	3	2	ppm
3	3	2	2	1	1	ppm
5	3	3	2	2	1	ppm
5	4	4	3	2	1	ppm
6	5	5	3	1	1	ppm
172	63	49	38	24	18	ppb
151	80	61	40	24	17	ppb
80	80	60	43	21	10	ppb
62	62	62	53	24	11	ppb
83	29	26	25	15	11	ppb
521	16	16	16	16	15	ppb
445	161	98	53	25	17	ppb
23	23	23	23	20	15	ppb
27	27	25	24	17	10	ppb
30	27	21	17	7	3	ppb
40	23	20	16	9	4	ppb
143	71	49	34	21	9	ppb
303	132	94	53	21	15	ppb
222	204	164	146	111	57	ppb
167	117	107	95	78	64	ppb
3,224	3,031	1,682	1,040	359	160	ppb
666	665	665	619	433	165	ppb
314	297	269	232	182	141	ppb
277	13	13	13	13	12	ppb
54	42	37	29	17	9	ppb
492	492	492	481	391	214	ppb
1,613	1,469	865	647	339	173	ppb
13,959	2,963	1,391	928	511	400	ppb
16,708	2,483	1,442	1,035	641	486	ppb
359	228	193	152	57	26	ppb

169	134	107	72	25	15	ppb
0.0004	0.0004	0.0003	0.0003	0.0002	0.0002	ppb
0.001	0.0008	0.0006	0.0005	0.0004	0.0003	ppb
0.006	0.006	0.004	0.003	0.001	0.0007	ppb
0.007	0.007	0.007	0.007	0.005	0.003	ppb
0.006	0.002	0.001	0.001	0.001	0.0009	ppb
0.003	0.0002	0.0002	0.0002	0.0002	0.0002	ppb
0.001	0.001	0.0009	0.0007	0.0004	0.0003	ppb
0.0009	0.0009	0.0009	0.0009	0.0008	0.0006	ppb
0.003	0.003	0.003	0.003	0.002	0.001	ppb
0.002	0.002	0.002	0.001	0.001	0.0006	ppb
0.004	0.003	0.002	0.002	0.001	0.0005	ppb
1.3	0.09	0.07	0.05	0.04	0.03	ppb
0.002	0.001	0.001	0.0006	0.0003	0.0002	ppb
0.00007	0.00006	0.00006	0.00005	0.00004	0.00003	ppb
0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	ppb
0.0001	0.0001	0.0001	0.0001	0.00005	0.00003	ppb
0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	ppb
0.001	0.0003	0.0002	0.0002	0.0002	0.0001	ppb
0.0002	0.00002	0.00002	0.00002	0.00002	0.00002	ppb
0.0005	0.0004	0.0003	0.0003	0.0002	0.0001	ppb
0.0001	0.0001	0.0001	0.0001	0.0001	0.00008	ppb
0.0002	0.0002	0.0001	0.0001	0.0001	0.00007	ppb
0.0002	0.0002	0.0002	0.0001	0.00009	0.00007	ppb
0.0001	0.00008	0.00007	0.00006	0.00004	0.00002	ppb
0.0004	0.0001	0.00009	0.00007	0.00005	0.00003	ppb
0.0004	0.0003	0.0002	0.0001	0.00007	0.00005	ppb
0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	ppb
0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
0.001	0.0012	0.0010	0.0007	0.0003	0.0001	ppb
0.002	0.002	0.002	0.002	0.001	0.0008	ppb
0.003	0.0009	0.0006	0.0006	0.0005	0.0004	ppb
0.0005	0.00005	0.00005	0.00005	0.00005	0.00004	ppb
0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	ppb
0.0008	0.0008	0.0008	0.0007	0.0006	0.0004	ppb
0.001	0.0009	0.0008	0.0006	0.0004	0.0003	ppb
0.001	0.0009	0.0006	0.0005	0.0002	0.0001	ppb
0.2	0.01	0.01	0.007	0.006	0.005	ppb
0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb
0.0004	0.0003	0.0003	0.0003	0.0002	0.0002	ppb
0.0006	0.0004	0.0003	0.0002	0.0002	0.0002	ppb
0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	ppb
0.002	0.002	0.002	0.002	0.001	0.0007	ppb
0.0010	0.0005	0.0003	0.0003	0.0003	0.0002	ppb
0.0003	0.00004	0.00004	0.00004	0.00004	0.00004	ppb

0.0003	0.0002	0.0002	0.0001	0.00007	0.00005	ppb
0.0006	0.0006	0.0006	0.0006	0.0006	0.0004	ppb
0.001	0.001	0.001	0.001	0.0008	0.0006	ppb
0.002	0.002	0.001	0.001	0.0007	0.0004	ppb
0.002	0.001	0.0009	0.0007	0.0003	0.0002	ppb
0.3	0.02	0.02	0.01	0.009	0.007	ppb
0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb
0.00003	0.00003	0.00003	0.00003	0.00002	0.00002	ppb
0.00006	0.00005	0.00003	0.00003	0.00002	0.00002	ppb
0.00003	0.00003	0.00002	0.00002	0.00001	0.00001	ppb
0.00004	0.00004	0.00004	0.00004	0.00003	0.00002	ppb
0.0002	0.00004	0.00002	0.00002	0.00002	0.00001	ppb
0.00007	0.000008	0.000008	0.000008	0.000008	0.000007	ppb
0.0002	0.0001	0.0001	0.00009	0.00006	0.00004	ppb
0.00008	0.00008	0.00008	0.00008	0.00008	0.00005	ppb
0.0001	0.0001	0.0001	0.0001	0.00009	0.00006	ppb
0.00007	0.00006	0.00005	0.00005	0.00003	0.00002	ppb
0.00005	0.00003	0.00003	0.00003	0.00002	0.00001	ppb
0.0008	0.0001	0.00008	0.00007	0.00005	0.00003	ppb
0.0005	0.0003	0.0003	0.0001	0.00008	0.00006	ppb

Table 4.2-3

SDUs that meet PRGs for RAO 1 under Alternative A.

Portland Harbor Superfund Site

Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
Arsenic							X	
PCBs	X	X	X	X	X			X
cPAHs							X	
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Notes:

The spatial scale for evaluating this RAO is 0.5 RM, but the SDU is 1 RM. Therefore, there may still be risks at

Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminants as n

5W	6NAV	6W	7W	9W
	X			
X	X	X	X	X
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X	X		X
X	X	X	X	X

the 0.5 RM scale that need to be addressed.
neeting PRGs.

Table 4.2-4
Summary of Rolling RM and SDUs at t=0 by COC for RAO 2
Portland Harbor Superfund Site
Portland, OR

PRGs by COC				Alternative met by PRG at t=0			
				Rolling RM			
Contaminant	**RAO**	**Receptor**	**PRG**	**E**	**N**	**W**	**SIL**
Aldrin	RAO 2	Subsistence Fisher	2	G	A	D	A
Chlordanes	RAO 2	Subsistence Fisher	1.5	G	G	F	A
DDx	RAO 2	Subsistence Fisher	6	G+	G+	G+	B

Dieldrin	RAO 2	Background ND	0.3	G+	G+	G+	G+
Hexchlorobenzene	RAO 2	Background	0.3	G+	G+	G+	G+
PCBs	RAO 2	Background	9	G+	G+	G+	G+
cPAH	RAO 2	Subsistence Fisher	3,950	A	D	D	A

HxCDF	RAO 2	Background ND	0.001	G+	G+	G+	A
PeCDD	RAO 2	Subsistence Fisher	0.0001	G+	G+	G+	B
PeCDF	RAO 2	Subsistence Fisher	0.0002	G+	G+	G+	B

TCDF	RAO 2	Subsistence Fisher	0.0004	G+	G+	G+	A
TCDD	RAO 2	Subsistence Fisher	0.0001	D	G	G	A

SDU SWAC at t=0							
	Alternative						
SDU	A	B	D	E	F	G	Units
RM2E	0.8	0.7	0.7	0.7	0.6	0.4	ppb
RM3.5E	0.5	0.4	0.4	0.3	0.3	0.2	ppb
RM4.5E	5.7	5.7	4.6	3.5	2.1	1.0	ppb
RM5.5E	0.5	0.5	0.5	0.5	0.3	0.2	ppb
RM6.5E	0.4	0.3	0.3	0.3	0.3	0.2	ppb
SwanIs	0.5	0.0	0.0	0.0	0.0	0.0	ppb
RM11E	0.3	0.2	0.2	0.2	0.1	0.1	ppb
RM3.9W	0.7	0.7	0.7	0.7	0.5	0.3	ppb
RM5W	0.3	0.3	0.3	0.3	0.3	0.1	ppb
RM6Nav	1.1	0.8	0.6	0.5	0.3	0.2	ppb
RM6W	2.0	1.1	0.7	0.5	0.3	0.2	ppb
RM7W	5.6	2.4	1.5	1.1	0.7	0.4	ppb
RM9W	1.9	1.2	1.1	0.7	0.3	0.1	ppb
RM2E	2.0	1.8	1.7	1.7	1.4	1.0	ppb
RM3.5E	1.1	0.7	0.6	0.5	0.4	0.3	ppb
RM4.5E	6.5	6.4	5.3	4.2	2.4	1.1	ppb
RM5.5E	2.1	2.1	2.1	1.9	1.1	0.6	ppb
RM6.5E	1.0	0.7	0.7	0.6	0.5	0.4	ppb
SwanIs	2.3	0.1	0.1	0.1	0.1	0.1	ppb
RM11E	19.8	8.8	5.2	2.9	1.8	1.2	ppb
RM3.9W	1.5	1.5	1.5	1.4	1.2	0.7	ppb
RM5W	1.0	1.0	0.9	0.9	0.7	0.4	ppb
RM6Nav	1.8	1.4	1.0	0.8	0.4	0.2	ppb
RM6W	7.1	3.1	1.9	1.4	0.8	0.5	ppb
RM7W	9.9	4.4	3.1	2.1	1.2	0.6	ppb
RM9W	7.1	4.4	4.0	2.9	1.0	0.5	ppb
RM2E	9	8	8	7	6	4	ppb
RM3.5E	9	7	6	6	4	3	ppb
RM4.5E	15	14	12	10	6	3	ppb
RM5.5E	13	13	13	12	6	3	ppb
RM6.5E	10	8	6	6	5	5	ppb
SwanIs	15	1	1	1	1	1	ppb
RM11E	26	14	10	8	4	2	ppb
RM3.9W	17	17	17	17	16	8	ppb
RM5W	15	15	14	13	11	5	ppb
RM6Nav	12	8	6	5	3	1	ppb
RM6W	79	27	22	18	9	4	ppb
RM7W	636	96	64	40	26	19	ppb

RM9W	37	22	20	13	5	3	ppb
RM2E	0.9	0.8	0.8	0.7	0.6	0.4	ppb
RM3.5E	0.3	0.3	0.3	0.2	0.2	0.1	ppb
RM4.5E	6.0	6.0	4.8	3.8	2.3	1.1	ppb
RM5.5E	0.7	0.7	0.7	0.6	0.4	0.2	ppb
RM6.5E	0.3	0.2	0.2	0.2	0.1	0.1	ppb
SwanIs	1.2	0.05	0.05	0.05	0.05	0.05	ppb
RM11E	2.6	0.8	0.6	0.4	0.3	0.2	ppb
RM3.9W	0.6	0.6	0.6	0.6	0.4	0.2	ppb
RM5W	0.4	0.4	0.4	0.4	0.3	0.2	ppb
RM6Nav	1.0	0.8	0.5	0.4	0.2	0.1	ppb
RM6W	3.5	1.8	1.0	0.6	0.3	0.2	ppb
RM7W	8.0	3.1	1.7	1.1	0.7	0.4	ppb
RM9W	2.6	1.5	1.4	1.0	0.3	0.2	ppb
RM2E	3.0	2.7	2.6	2.4	2.0	1.7	ppb
RM3.5E	3.8	3.5	3.3	3.1	2.6	2.0	ppb
RM4.5E	28.6	28.2	17.1	12.0	6.1	3.1	ppb
RM5.5E	2.6	2.6	2.6	2.4	1.5	1.0	ppb
RM6.5E	2.5	1.9	1.7	1.6	1.4	1.1	ppb
SwanIs	8.5	1.0	1.0	1.0	1.0	0.9	ppb
RM11E	1.6	1.5	1.5	1.2	0.8	0.5	ppb
RM3.9W	84.5	84.5	84.5	83.1	64.3	24.8	ppb
RM5W	3.9	3.9	3.8	3.6	3.1	2.2	ppb
RM6Nav	17.6	8.8	5.5	4.5	3.3	2.4	ppb
RM6W	28.7	7.3	5.4	3.7	2.2	1.5	ppb
RM7W	37.1	33.7	31.6	26.9	20.9	9.4	ppb
RM9W	91.2	66.7	50.4	4.2	3.1	2.8	ppb
RM2E	172	63	49	38	24	18	ppb
RM3.5E	151	80	61	40	24	17	ppb
RM4.5E	80	80	60	43	21	10	ppb
RM5.5E	62	62	62	53	24	11	ppb
RM6.5E	83	29	26	25	15	11	ppb
SwanIs	521	16	16	16	16	15	ppb
RM11E	445	161	98	53	25	17	ppb
RM3.9W	23	23	23	23	20	15	ppb
RM5W	27	27	25	24	17	10	ppb
RM6Nav	30	27	21	17	7	3	ppb
RM6W	40	23	20	16	9	4	ppb
RM7W	143	71	49	34	21	9	ppb
RM9W	303	132	94	53	21	15	ppb
RM2E	222	204	164	146	111	57	ppb
RM3.5E	167	117	107	95	78	64	ppb
RM4.5E	3,224	3,031	1,682	1,040	359	160	ppb
RM5.5E	666	665	665	619	433	165	ppb
RM6.5E	314	297	269	232	182	141	ppb
SwanIs	277	13	13	13	13	12	ppb

RM11E	54	42	37	29	17	9	ppb
RM3.9W	492	492	492	481	391	214	ppb
RM5W	1,613	1,469	865	647	339	173	ppb
RM6Nav	13,959	2,963	1,391	928	511	400	ppb
RM6W	16,708	2,483	1,442	1,035	641	486	ppb
RM7W	359	228	193	152	57	26	ppb
RM9W	169	134	107	72	25	15	ppb
RM2E	0.0004	0.0004	0.0003	0.0003	0.0002	0.0002	ppb
RM3.5E	0.001	0.0008	0.0006	0.0005	0.0004	0.0003	ppb
RM4.5E	0.006	0.006	0.004	0.003	0.001	0.0007	ppb
RM5.5E	0.007	0.007	0.007	0.007	0.005	0.003	ppb
RM6.5E	0.006	0.002	0.001	0.001	0.001	0.0009	ppb
SwanIs	0.003	0.0002	0.0002	0.0002	0.0002	0.0002	ppb
RM11E	0.001	0.001	0.0009	0.0007	0.0004	0.0003	ppb
RM3.9W	0.0009	0.0009	0.0009	0.0009	0.0008	0.0006	ppb
RM5W	0.003	0.003	0.003	0.003	0.002	0.001	ppb
RM6Nav	0.002	0.002	0.002	0.001	0.001	0.0006	ppb
RM6W	0.004	0.003	0.002	0.002	0.001	0.0005	ppb
RM7W	1.3	0.09	0.07	0.05	0.04	0.03	ppb
RM9W	0.002	0.001	0.001	0.0006	0.0003	0.0002	ppb
RM2E	0.00007	0.00006	0.00006	0.00005	0.00004	0.00003	ppb
RM3.5E	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	ppb
RM4.5E	0.0001	0.0001	0.0001	0.0001	0.00005	0.00003	ppb
RM5.5E	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	ppb
RM6.5E	0.001	0.0003	0.0002	0.0002	0.0002	0.0001	ppb
SwanIs	0.0002	0.00002	0.00002	0.00002	0.00002	0.00002	ppb
RM11E	0.0005	0.0004	0.0003	0.0003	0.0002	0.0001	ppb
RM3.9W	0.0001	0.0001	0.0001	0.0001	0.0001	0.00008	ppb
RM5W	0.0002	0.0002	0.0001	0.0001	0.0001	0.00007	ppb
RM6Nav	0.0002	0.0002	0.0002	0.0001	0.00009	0.00007	ppb
RM6W	0.0001	0.00008	0.00007	0.00006	0.00004	0.00002	ppb
RM7W	0.0004	0.0001	0.00009	0.00007	0.00005	0.00003	ppb
RM9W	0.0004	0.0003	0.0002	0.0001	0.00007	0.00005	ppb
RM2E	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	ppb
RM3.5E	0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
RM4.5E	0.001	0.0012	0.0010	0.0007	0.0003	0.0001	ppb
RM5.5E	0.002	0.002	0.002	0.002	0.001	0.0008	ppb
RM6.5E	0.003	0.0009	0.0006	0.0006	0.0005	0.0004	ppb
SwanIs	0.0005	0.00005	0.00005	0.00005	0.00005	0.00004	ppb
RM11E	0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
RM3.9W	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	ppb
RM5W	0.0008	0.0008	0.0008	0.0007	0.0006	0.0004	ppb
RM6Nav	0.001	0.0009	0.0008	0.0006	0.0004	0.0003	ppb
RM6W	0.001	0.0009	0.0006	0.0005	0.0002	0.0001	ppb
RM7W	0.2	0.01	0.01	0.007	0.006	0.005	ppb
RM9W	0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb

RM2E	0.0004	0.0003	0.0003	0.0003	0.0002	0.0002	ppb
RM3.5E	0.0006	0.0004	0.0003	0.0002	0.0002	0.0002	ppb
RM4.5E	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	ppb
RM5.5E	0.002	0.002	0.002	0.002	0.001	0.0007	ppb
RM6.5E	0.0010	0.0005	0.0003	0.0003	0.0003	0.0002	ppb
SwanIs	0.0003	0.00004	0.00004	0.00004	0.00004	0.00004	ppb
RM11E	0.0003	0.0002	0.0002	0.0001	0.00007	0.00005	ppb
RM3.9W	0.0006	0.0006	0.0006	0.0006	0.0006	0.0004	ppb
RM5W	0.001	0.001	0.001	0.001	0.0008	0.0006	ppb
RM6Nav	0.002	0.002	0.001	0.001	0.0007	0.0004	ppb
RM6W	0.002	0.001	0.0009	0.0007	0.0003	0.0002	ppb
RM7W	0.3	0.02	0.02	0.01	0.009	0.007	ppb
RM9W	0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb
RM2E	0.00003	0.00003	0.00003	0.00003	0.00002	0.00002	ppb
RM3.5E	0.00006	0.00005	0.00003	0.00003	0.00002	0.00002	ppb
RM4.5E	0.00003	0.00003	0.00002	0.00002	0.00001	0.00001	ppb
RM5.5E	0.00004	0.00004	0.00004	0.00004	0.00003	0.00002	ppb
RM6.5E	0.0002	0.00004	0.00002	0.00002	0.00002	0.00001	ppb
SwanIs	0.00007	0.000008	0.000008	0.000008	0.000008	0.000007	ppb
RM11E	0.0002	0.0001	0.0001	0.00009	0.00006	0.00004	ppb
RM3.9W	0.00008	0.00008	0.00008	0.00008	0.00008	0.00005	ppb
RM5W	0.0001	0.0001	0.0001	0.0001	0.00009	0.00006	ppb
RM6Nav	0.00007	0.00006	0.00005	0.00005	0.00003	0.00002	ppb
RM6W	0.00005	0.00003	0.00003	0.00003	0.00002	0.00001	ppb
RM7W	0.0008	0.0001	0.00008	0.00007	0.00005	0.00003	ppb
RM9W	0.0005	0.0003	0.0003	0.0001	0.00008	0.00006	ppb

Table 4.2-5
SDUs that meet PRGs for RAO 2 under Alternative A.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU						
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E
Chlordanes		X			X		
DDx							
Dieldrin		X			X		
Hexachlorobenzene							
PCBs							
cPAHs	X	X	X	X	X	X	X
HxCDF	X	X					X
PeCDD	X		X				
PeCDF	X						
TCDF	X		X			X	X
TCDD	X	X	X	X		X	

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contamina

3.9W	5W	6NAV	6W	7W	9W
X	X				
X					
X	X			X	X
X					
X			X		
X	X	X	X		

ants as meeting PRGs.

Table 4.2-6
Summary of Rolling RM and SDUs at t=0 by COC for RAO 5
Portland Harbor Superfund Site
Portland, OR

PRGs by COC				Alternative met by PRG at t=0			
				Rolling RM			
Contaminant	**RAO**	**Receptor**	**PRG**	**E**	**N**	**W**	**SIL**
BEHP	RAO 5	Smallmouth Bass	135	G+	G+	G+	A
Cadmium	RAO 5	PEC	5	A	A	A	A
Chlordanes	RAO 5	PEC	18	B	A	B	A

Copper	RAO 5	PEC	149	F	A	E	B
DDx	RAO 5	PEC	63	A	A	G+	A
DDE	RAO 5	PEC	31	A	A	D	A
Dieldrin	RAO 5	PEC	62	A	A	A	A

Lindane	RAO 5	PEC	5	F	A	D	A
Lead	RAO 5	PEC	128	G	A	B	A
Mercury	RAO 5	PEC	1.1	B	A	A	A

PCBs	RAO 5	Smallmouth Bass	64	F	F	F	B
PAHs	RAO 5	PEC	23,000	D	G+	D	A
TBT	RAO 5	Worm	24	A	A	A	A
Zinc	RAO 5	PEC	459	A	A	B	A

SDU SWAC at t=0							
	Alternative						
SDU	A	B	D	E	F	G	Units
RM2E	104	96	92	86	75	66	ppb
RM3.5E	1072	793	692	427	146	79	ppb
RM4.5E	223	220	192	168	71	34	ppb
RM5.5E	171	171	171	161	102	51	ppb
RM6.5E	101	80	73	71	54	45	ppb
SwanIs	1820	119	119	119	117	112	ppb
RM11E	137	122	109	90	60	39	ppb
RM3.9W	553	553	553	544	428	180	ppb
RM5W	70	69	66	63	47	30	ppb
RM6Nav	245	182	124	88	45	26	ppb
RM6W	315	163	122	77	36	20	ppb
RM7W	348	303	287	260	191	105	ppb
RM9W	1147	904	596	206	75	54	ppb
RM2E	0.4	0.3	0.3	0.3	0.2	0.2	ppm
RM3.5E	0.3	0.3	0.2	0.2	0.2	0.1	ppm
RM4.5E	0.7	0.6	0.5	0.4	0.2	0.1	ppm
RM5.5E	0.3	0.3	0.3	0.2	0.2	0.1	ppm
RM6.5E	0.3	0.2	0.2	0.2	0.1	0.1	ppm
SwanIs	0.5	0.0	0.0	0.0	0.0	0.0	ppm
RM11E	0.2	0.1	0.1	0.1	0.1	0.0	ppm
RM3.9W	0.3	0.3	0.3	0.3	0.2	0.2	ppm
RM5W	0.3	0.3	0.3	0.3	0.2	0.1	ppm
RM6Nav	0.2	0.1	0.1	0.1	0.0	0.0	ppm
RM6W	0.3	0.2	0.1	0.1	0.1	0.0	ppm
RM7W	0.5	0.4	0.4	0.3	0.2	0.1	ppm
RM9W	0.5	0.4	0.3	0.2	0.1	0.1	ppm
RM2E	2.0	1.8	1.7	1.7	1.4	1.0	ppb
RM3.5E	1.1	0.7	0.6	0.5	0.4	0.3	ppb
RM4.5E	6.5	6.4	5.3	4.2	2.4	1.1	ppb
RM5.5E	2.1	2.1	2.1	1.9	1.1	0.6	ppb
RM6.5E	1.0	0.7	0.7	0.6	0.5	0.4	ppb
SwanIs	2.3	0.1	0.1	0.1	0.1	0.1	ppb
RM11E	19.8	8.8	5.2	2.9	1.8	1.2	ppb
RM3.9W	1.5	1.5	1.5	1.4	1.2	0.7	ppb
RM5W	1.0	1.0	0.9	0.9	0.7	0.4	ppb
RM6Nav	1.8	1.4	1.0	0.8	0.4	0.2	ppb
RM6W	7.1	3.1	1.9	1.4	0.8	0.5	ppb
RM7W	9.9	4.4	3.1	2.1	1.2	0.6	ppb

RM9W	7.1	4.4	4.0	2.9	1.0	0.5	ppb
RM2E	38	35	34	33	29	25	ppm
RM3.5E	36	32	30	27	21	17	ppm
RM4.5E	36	36	31	27	17	9	ppm
RM5.5E	82	82	82	78	40	20	ppm
RM6.5E	51	41	37	36	23	19	ppm
SwanIs	141	14	14	14	13	12	ppm
RM11E	41	34	27	20	12	7	ppm
RM3.9W	38	38	38	38	36	25	ppm
RM5W	34	34	33	31	25	17	ppm
RM6Nav	27	23	19	16	9	5	ppm
RM6W	48	33	28	25	17	8	ppm
RM7W	40	29	25	21	16	8	ppm
RM9W	82	63	51	34	16	11	ppm
RM2E	9	8	8	7	6	4	ppb
RM3.5E	9	7	6	6	4	3	ppb
RM4.5E	15	14	12	10	6	3	ppb
RM5.5E	13	13	13	12	6	3	ppb
RM6.5E	10	8	6	6	5	5	ppb
SwanIs	15	1	1	1	1	1	ppb
RM11E	26	14	10	8	4	2	ppb
RM3.9W	17	17	17	17	16	8	ppb
RM5W	15	15	14	13	11	5	ppb
RM6Nav	12	8	6	5	3	1	ppb
RM6W	79	27	22	18	9	4	ppb
RM7W	636	96	64	40	26	19	ppb
RM9W	37	22	20	13	5	3	ppb
RM2E	2.5	2.3	2.2	2.1	1.8	1.5	ppb
RM3.5E	2.3	1.9	1.7	1.5	1.1	0.9	ppb
RM4.5E	3.1	3.1	2.8	2.5	1.6	0.8	ppb
RM5.5E	2.8	2.8	2.8	2.5	1.6	0.9	ppb
RM6.5E	2.0	1.6	1.5	1.4	1.2	1.0	ppb
SwanIs	3.3	0.2	0.2	0.2	0.2	0.2	ppb
RM11E	2.0	1.2	1.0	0.9	0.6	0.4	ppb
RM3.9W	3.2	3.2	3.2	3.2	2.9	2.1	ppb
RM5W	2.7	2.7	2.6	2.5	1.9	1.1	ppb
RM6Nav	2.8	2.1	1.6	1.3	0.6	0.4	ppb
RM6W	15.2	3.9	2.9	2.2	1.2	0.7	ppb
RM7W	49.1	14.9	9.3	5.4	3.2	1.9	ppb
RM9W	15.4	7.2	6.6	4.3	1.7	1.0	ppb
RM2E	0.9	0.8	0.8	0.7	0.6	0.4	ppb
RM3.5E	0.3	0.3	0.3	0.2	0.2	0.1	ppb
RM4.5E	6.0	6.0	4.8	3.8	2.3	1.1	ppb
RM5.5E	0.7	0.7	0.7	0.6	0.4	0.2	ppb
RM6.5E	0.3	0.2	0.2	0.2	0.1	0.1	ppb
SwanIs	1.2	0.05	0.05	0.05	0.05	0.05	ppb

RM11E	2.6	0.8	0.6	0.4	0.3	0.2	ppb
RM3.9W	0.6	0.6	0.6	0.6	0.4	0.2	ppb
RM5W	0.4	0.4	0.4	0.4	0.3	0.2	ppb
RM6Nav	1.0	0.8	0.5	0.4	0.2	0.1	ppb
RM6W	3.5	1.8	1.0	0.6	0.3	0.2	ppb
RM7W	8.0	3.1	1.7	1.1	0.7	0.4	ppb
RM9W	2.6	1.5	1.4	1.0	0.3	0.2	ppb
RM2E	1	1	0.5	0.5	0.4	0.3	ppb
RM3.5E	0.4	0.3	0.3	0.3	0.2	0.2	ppb
RM4.5E	6	6	5	4	2	1	ppb
RM5.5E	1	1	1	1	1	0	ppb
RM6.5E	1	1	1	1	1	1	ppb
SwanIs	2	0.2	0.2	0.2	0.2	0.2	ppb
RM11E	0.4	0.3	0.2	0.2	0.1	0.1	ppb
RM3.9W	1	1	1	1	1	1	ppb
RM5W	1	1	1	1	1	0	ppb
RM6Nav	1	1	1	1	0	0	ppb
RM6W	3	1	1	1	0	0	ppb
RM7W	6	2	1	1	1	0	ppb
RM9W	1	1	1	0	0	0	ppb
RM2E	16	13	12	12	10	8	ppm
RM3.5E	20	16	14	11	9	7	ppm
RM4.5E	73	67	43	33	15	6	ppm
RM5.5E	43	43	43	40	22	13	ppm
RM6.5E	119	74	57	54	47	34	ppm
SwanIs	38	2	2	2	2	2	ppm
RM11E	43	35	30	23	15	8	ppm
RM3.9W	15	15	15	15	14	10	ppm
RM5W	18	18	18	17	13	9	ppm
RM6Nav	12	10	8	7	3	2	ppm
RM6W	27	14	12	10	6	3	ppm
RM7W	29	19	16	12	8	4	ppm
RM9W	66	48	38	22	9	6	ppm
RM2E	0.1	0.1	0.1	0.1	0.1	0.0	ppm
RM3.5E	0.1	0.1	0.1	0.0	0.0	0.0	ppm
RM4.5E	0.1	0.1	0.1	0.1	0.0	0.0	ppm
RM5.5E	0.1	0.1	0.1	0.1	0.1	0.1	ppm
RM6.5E	0.6	0.4	0.3	0.3	0.3	0.2	ppm
SwanIs	0.1	0.0	0.0	0.0	0.0	0.0	ppm
RM11E	0.1	0.0	0.0	0.0	0.0	0.0	ppm
RM3.9W	0.1	0.1	0.1	0.1	0.1	0.0	ppm
RM5W	0.1	0.1	0.1	0.1	0.0	0.0	ppm
RM6Nav	0.1	0.0	0.0	0.0	0.0	0.0	ppm
RM6W	0.1	0.0	0.0	0.0	0.0	0.0	ppm
RM7W	0.1	0.1	0.1	0.0	0.0	0.0	ppm
RM9W	0.1	0.1	0.1	0.1	0.0	0.0	ppm

RM2E	172	63	49	38	24	18	ppb
RM3.5E	151	80	61	40	24	17	ppb
RM4.5E	80	80	60	43	21	10	ppb
RM5.5E	62	62	62	53	24	11	ppb
RM6.5E	83	29	26	25	15	11	ppb
SwanIs	521	16	16	16	16	15	ppb
RM11E	445	161	98	53	25	17	ppb
RM3.9W	23	23	23	23	20	15	ppb
RM5W	27	27	25	24	17	10	ppb
RM6Nav	30	27	21	17	7	3	ppb
RM6W	40	23	20	16	9	4	ppb
RM7W	143	71	49	34	21	9	ppb
RM9W	303	132	94	53	21	15	ppb
RM2E	3,028	2,760	1,914	1,591	1,152	573	ppb
RM3.5E	1,465	928	834	743	627	519	ppb
RM4.5E	21,640	20,455	11,508	7,071	2,502	1,117	ppb
RM5.5E	4,692	4,684	4,684	4,313	2,884	1,141	ppb
RM6.5E	2,802	2,570	2,208	1,904	1,504	1,170	ppb
SwanIs	2,806	126	126	126	122	116	ppb
RM11E	518	411	358	286	175	90	ppb
RM3.9W	4,006	4,006	4,006	3,886	3,062	1,639	ppb
RM5W	18,989	17,078	9,186	6,519	3,177	1,616	ppb
RM6Nav	190,734	31,172	14,997	10,131	6,278	5,241	ppb
RM6W	197,802	24,629	13,917	10,175	6,602	5,427	ppb
RM7W	3,996	2,574	2,152	1,618	580	293	ppb
RM9W	1,869	1,456	1,177	758	280	177	ppb
RM2E	0.003	0.002	0.002	0.002	0.002	0.002	ppm
RM3.5E	0.093	0.087	0.086	0.083	0.059	0.037	ppm
RM4.5E	0.036	0.035	0.032	0.028	0.021	0.013	ppm
RM5.5E	0.116	0.116	0.116	0.110	0.069	0.042	ppm
RM6.5E	0.087	0.073	0.068	0.066	0.053	0.046	ppm
SwanIs	2.479	0.353	0.353	0.353	0.342	0.315	ppm
RM11E	0.008	0.007	0.006	0.005	0.003	0.002	ppm
RM3.9W	0.029	0.029	0.029	0.029	0.028	0.025	ppm
RM5W	0.012	0.012	0.011	0.010	0.008	0.005	ppm
RM6Nav	0.092	0.072	0.052	0.042	0.022	0.012	ppm
RM6W	0.053	0.019	0.014	0.011	0.007	0.004	ppm
RM7W	0.015	0.013	0.012	0.010	0.007	0.004	ppm
RM9W	0.024	0.017	0.011	0.005	0.002	0.002	ppm
RM2E	114	100	95	90	78	66	ppm
RM3.5E	132	111	99	85	68	56	ppm
RM4.5E	158	154	123	102	54	27	ppm
RM5.5E	137	137	137	132	81	44	ppm
RM6.5E	109	83	74	73	60	50	ppm
SwanIs	251	18	18	18	18	17	ppm
RM11E	94	76	66	51	32	20	ppm

RM3.9W	100	100	100	99	94	73	ppm
RM5W	101	100	94	90	69	47	ppm
RM6Nav	86	72	58	49	27	16	ppm
RM6W	122	76	64	56	36	19	ppm
RM7W	116	90	79	65	46	22	ppm
RM9W	256	205	162	97	43	29	ppm

Table 4.2-7
SDUs that meet PRGs for RAO 5 under Alternative A.
Portland Harbor Superfund Site
Portland, OR

	SDU							
Contaminant	**2E**	**3.5E**	**4.5E**	**5.5E**	**6.5E**	**SIL**	**11E**	**3.9W**
BEHP	X				X			
Cadmium	X	X	X	X	X	X	X	X
Chlordanes	X	X	X	X	X	X		X
Copper	X	X	X	X	X	X	X	X
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	X
Dieldrin	X	X	X	X	X	X	X	X
Lindane	X	X		X	X	X	X	X
Lead	X	X	X	X	X	X	X	X
Mercury	X	X	X	X	X	X	X	X
PCBs				X				X
PAHs	X	X	X	X	X	X	X	X
TBT	X	X	X	X	X	X	X	X
Zinc	X	X	X	X	X	X	X	X

Note: The spatial scale for evaluating this RAO is 0.2 RM, but the SDU is 1 RM. Therefore, there may still be r

5W	6NAV	6W	7W	9W
X				
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X			X
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X	X	X	X
X	X	X	X	X
X	X	X		
X			X	X
X	X	X	X	X
X	X	X	X	X

·isks at the 0.2 RM scale that need to be addressed.

Table 4.2-8
Summary of Rolling RM and SDUs at t=0 by COC for RAO 6
Portland Harbor Superfund Site
Portland, OR

PRGs by COC				Alternative met by PRG at t=0			
				Rolling RM			
Contaminant	**RAO**	**Receptor**	**PRG**	**E**	**N**	**W**	**SIL**
DDx	RAO 6	Spotted Sandpiper	3,000	A	A	A	A
DDE	RAO 6	Osprey (egg)	2.8	G	F	F	B
PCBs	RAO 6	Mink	36	F	F	F	B

HxCDF	RAO 6	River Otter	0.03	A	A	G+	A
PeCDD	RAO 6	Osprey (egg)	0.001	B	A	A	A
PeCDF	RAO 6	Osprey (egg)	0.004	B	A	G+	A
TCDF	RAO 6	Osprey (egg)	0.004	A	A	G+	A

TCDD	RAO 6	Osprey (egg)	0.0008	A	A	B	A

SDU SWAC at t=0							
	Alternative						
SDU	A	B	D	E	F	G	Units
RM2E	9	8	8	7	6	4	ppb
RM3.5E	9	7	6	6	4	3	ppb
RM4.5E	15	14	12	10	6	3	ppb
RM5.5E	13	13	13	12	6	3	ppb
RM6.5E	10	8	6	6	5	5	ppb
SwanIs	15	1	1	1	1	1	ppb
RM11E	26	14	10	8	4	2	ppb
RM3.9W	17	17	17	17	16	8	ppb
RM5W	15	15	14	13	11	5	ppb
RM6Nav	12	8	6	5	3	1	ppb
RM6W	79	27	22	18	9	4	ppb
RM7W	636	96	64	40	26	19	ppb
RM9W	37	22	20	13	5	3	ppb
RM2E	2.5	2.3	2.2	2.1	1.8	1.5	ppb
RM3.5E	2.3	1.9	1.7	1.5	1.1	0.9	ppb
RM4.5E	3.1	3.1	2.8	2.5	1.6	0.8	ppb
RM5.5E	2.8	2.8	2.8	2.5	1.6	0.9	ppb
RM6.5E	2.0	1.6	1.5	1.4	1.2	1.0	ppb
SwanIs	3.3	0.2	0.2	0.2	0.2	0.2	ppb
RM11E	2.0	1.2	1.0	0.9	0.6	0.4	ppb
RM3.9W	3.2	3.2	3.2	3.2	2.9	2.1	ppb
RM5W	2.7	2.7	2.6	2.5	1.9	1.1	ppb
RM6Nav	2.8	2.1	1.6	1.3	0.6	0.4	ppb
RM6W	15.2	3.9	2.9	2.2	1.2	0.7	ppb
RM7W	49.1	14.9	9.3	5.4	3.2	1.9	ppb
RM9W	15.4	7.2	6.6	4.3	1.7	1.0	ppb
RM2E	172	63	49	38	24	18	ppb
RM3.5E	151	80	61	40	24	17	ppb
RM4.5E	80	80	60	43	21	10	ppb
RM5.5E	62	62	62	53	24	11	ppb
RM6.5E	83	29	26	25	15	11	ppb
SwanIs	521	16	16	16	16	15	ppb
RM11E	445	161	98	53	25	17	ppb
RM3.9W	23	23	23	23	20	15	ppb
RM5W	27	27	25	24	17	10	ppb
RM6Nav	30	27	21	17	7	3	ppb
RM6W	40	23	20	16	9	4	ppb
RM7W	143	71	49	34	21	9	ppb

RM9W	303	132	94	53	21	15	ppb
RM2E	0.0004	0.0004	0.0003	0.0003	0.0002	0.0002	ppb
RM3.5E	0.001	0.0008	0.0006	0.0005	0.0004	0.0003	ppb
RM4.5E	0.006	0.006	0.004	0.003	0.001	0.0007	ppb
RM5.5E	0.007	0.007	0.007	0.007	0.005	0.003	ppb
RM6.5E	0.006	0.002	0.001	0.001	0.001	0.0009	ppb
SwanIs	0.003	0.0002	0.0002	0.0002	0.0002	0.0002	ppb
RM11E	0.001	0.001	0.0009	0.0007	0.0004	0.0003	ppb
RM3.9W	0.0009	0.0009	0.0009	0.0009	0.0008	0.0006	ppb
RM5W	0.003	0.003	0.003	0.003	0.002	0.001	ppb
RM6Nav	0.002	0.002	0.002	0.001	0.001	0.0006	ppb
RM6W	0.004	0.003	0.002	0.002	0.001	0.0005	ppb
RM7W	1.3	0.09	0.07	0.05	0.04	0.03	ppb
RM9W	0.002	0.001	0.001	0.0006	0.0003	0.0002	ppb
RM2E	0.00007	0.00006	0.00006	0.00005	0.00004	0.00003	ppb
RM3.5E	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	ppb
RM4.5E	0.0001	0.0001	0.0001	0.0001	0.00005	0.00003	ppb
RM5.5E	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	ppb
RM6.5E	0.001	0.0003	0.0002	0.0002	0.0002	0.0001	ppb
SwanIs	0.0002	0.00002	0.00002	0.00002	0.00002	0.00002	ppb
RM11E	0.0005	0.0004	0.0003	0.0003	0.0002	0.0001	ppb
RM3.9W	0.0001	0.0001	0.0001	0.0001	0.0001	0.00008	ppb
RM5W	0.0002	0.0002	0.0001	0.0001	0.0001	0.00007	ppb
RM6Nav	0.0002	0.0002	0.0002	0.0001	0.00009	0.00007	ppb
RM6W	0.0001	0.00008	0.00007	0.00006	0.00004	0.00002	ppb
RM7W	0.0004	0.0001	0.00009	0.00007	0.00005	0.00003	ppb
RM9W	0.0004	0.0003	0.0002	0.0001	0.00007	0.00005	ppb
RM2E	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	ppb
RM3.5E	0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
RM4.5E	0.001	0.0012	0.0010	0.0007	0.0003	0.0001	ppb
RM5.5E	0.002	0.002	0.002	0.002	0.001	0.0008	ppb
RM6.5E	0.003	0.0009	0.0006	0.0006	0.0005	0.0004	ppb
SwanIs	0.0005	0.00005	0.00005	0.00005	0.00005	0.00004	ppb
RM11E	0.0004	0.0003	0.0002	0.0002	0.0001	0.0001	ppb
RM3.9W	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002	ppb
RM5W	0.0008	0.0008	0.0008	0.0007	0.0006	0.0004	ppb
RM6Nav	0.001	0.0009	0.0008	0.0006	0.0004	0.0003	ppb
RM6W	0.001	0.0009	0.0006	0.0005	0.0002	0.0001	ppb
RM7W	0.2	0.01	0.01	0.007	0.006	0.005	ppb
RM9W	0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb
RM2E	0.0004	0.0003	0.0003	0.0003	0.0002	0.0002	ppb
RM3.5E	0.0006	0.0004	0.0003	0.0002	0.0002	0.0002	ppb
RM4.5E	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	ppb
RM5.5E	0.002	0.002	0.002	0.002	0.001	0.0007	ppb
RM6.5E	0.0010	0.0005	0.0003	0.0003	0.0003	0.0002	ppb
SwanIs	0.0003	0.00004	0.00004	0.00004	0.00004	0.00004	ppb

RM11E	0.0003	0.0002	0.0002	0.0001	0.00007	0.00005	ppb
RM3.9W	0.0006	0.0006	0.0006	0.0006	0.0006	0.0004	ppb
RM5W	0.001	0.001	0.001	0.001	0.0008	0.0006	ppb
RM6Nav	0.002	0.002	0.001	0.001	0.0007	0.0004	ppb
RM6W	0.002	0.001	0.0009	0.0007	0.0003	0.0002	ppb
RM7W	0.3	0.02	0.02	0.01	0.009	0.007	ppb
RM9W	0.0008	0.0006	0.0005	0.0003	0.0002	0.0001	ppb
RM2E	0.00003	0.00003	0.00003	0.00003	0.00002	0.00002	ppb
RM3.5E	0.00006	0.00005	0.00003	0.00003	0.00002	0.00002	ppb
RM4.5E	0.00003	0.00003	0.00002	0.00002	0.00001	0.00001	ppb
RM5.5E	0.00004	0.00004	0.00004	0.00004	0.00003	0.00002	ppb
RM6.5E	0.0002	0.00004	0.00002	0.00002	0.00002	0.00001	ppb
SwanIs	0.00007	0.000008	0.000008	0.000008	0.000008	0.000007	ppb
RM11E	0.0002	0.0001	0.0001	0.00009	0.00006	0.00004	ppb
RM3.9W	0.00008	0.00008	0.00008	0.00008	0.00008	0.00005	ppb
RM5W	0.0001	0.0001	0.0001	0.0001	0.00009	0.00006	ppb
RM6Nav	0.00007	0.00006	0.00005	0.00005	0.00003	0.00002	ppb
RM6W	0.00005	0.00003	0.00003	0.00003	0.00002	0.00001	ppb
RM7W	0.0008	0.0001	0.00008	0.00007	0.00005	0.00003	ppb
RM9W	0.0005	0.0003	0.0003	0.0001	0.00008	0.00006	ppb

Table 4.2-9
SDUs that meet PRGs for RAO 6 under Alternative A.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
DDx	X	X	X	X	X	X	X	X
DDE	X	X		X	X		X	
PCBs								X
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminan

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X			
X	X			
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X	X		X
X	X	X	X	X

ts as meeting PRGs.

Table 4.2-10
Maximum Concentration of Contaminants for the Toxicity Characteristic (TCLP)
Portland Harbor Superfund Site
Portland, OR

EPA HW No.[1]	Portland Harbor COCs	CAS No.[2]	Regulatory Level per TCLP Test (mg/L)
D004	Arsenic	7440-38-2	5.0
D006	Cadmium	7440-43-9	1.0
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D007	Chromium	7440-47-3	5.0
D032	Hexachlorobenzene	118-74-1	[3] 0.13
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D037	Pentrachlorophenol	87-86-5	100.0

[1]Hazardous waste number.
[2]Chemical abstracts service number.
[3]Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore bec
the regulatory level.
COC - contaminant of concern
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
TCLP - Toxicity Characteristic Leaching Procedure

Sediment Concentration for Evaluation Purposes (mg/kg) (Assuming 20x Dilution)
100
20
0.6
2000
100
2.6
100
8
4
2000

comes

Table 4.2-11
Land Disposal Restrictions
Portland Harbor Superfund Site
Portland, OR

COCs	**Non-Wastewaters** (mg/kg unless noted as mg/L TCLP)	**Sediment Concentration for TCLP Criteria for Evaluation Purposes (mg/kg)** (Assume 20x Dilution)
Total PCBs	10	
Aldrin	0.066	
Dieldrin	0.13	
DDE	0.087	
4,4'-DDE	0.087	
Total DDx (as DDT)	0.087	
gamma-HCH (Lindane)	0.066	
Total Chlordanes	0.26	
Arsenic	5.0 mg/L TCLP	100
Cadmium	0.11 mg/L TCLP	2.2
Chromium	0.60 mg/L TCLP	12
Lead	0.75 mg/L TCLP	15
Mercury	260 mg/kg; if less than 260 mg/kg then 0.025 mg/L TCLP	0.5
Zinc	4.3 mg/L TCLP	86
BEHP	28	
Hexachlorobenzene	10	
Pentachlorophenol	7.4	
TCDD-2,3,7,8	0.001	
TCDF-2,3,7,8	0.001	
PeCDD-1,2,3,7,8	0.001	
PeCDF-2,3,4,7,8	0.001	
HxCDF-1,2,3,4,7,8	0.001	
Chlorobenzene	6.0	
PAHs		
Naphthalene	5.6	
Benzo(a)pyrene	3.4	
Acenaphthene	3.40	
Acenaphthylene	3.40	
Anthracene	3.40	
Benzo(a)anthracene	3.40	
Benzo(b)fluoranthene	6.80	
Benzo(k)fluoranthene	6.80	
Benzo(g,h,i)perylene	1.80	
Chrysene	3.40	
Dibenzo(a,h)anthracene	8.20	

Fluoranthene	3.40	
Fluorene	3.40	
Indeno(1,2,3-c,d)pyrene	3.40	
Phenanthrene	5.60	
Pyrene	8.20	

Notes:

Red text denotes Portland Harbor focused COCs.

COC - contaminant of concern

mg/kg - milligram per kilogram

mg/L - milligram per liter

TCLP - Toxicity Characteristic Leaching Procedure

Table 4.2-12

SDUs that meet PRGs for RAO 1 under Alternative B.

Portland Harbor Superfund Site

Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
Arsenic					**X**	**X**	X	
PCBs	X	X	X	X	X	**X**	**X**	X
cPAHs						**X**	X	
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Notes:

The spatial scale for evaluating this RAO is 0.5 RM, but the SDU is 1 RM. Therefore, there may still be risks a

Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminants as

5W	6NAV	6W	7W	9W
	X	X		
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

t the 0.5 RM scale that need to be addressed.
meeting PRGs.

Table 4.2-13
SDUs that meet PRGs for RAO 2 under Alternative B.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU						
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E
Aldrin	X	X		X	X	X	X
Chlordanes		X			X	X	
DDx						X	
Dieldrin		X			X	X	
Hexachlorobenzene							
PCBs							
cPAHs	X	X	X	X	X	X	X
HxCDF	X	X					X
PeCDD	X		X			X	
PeCDF	X					X	
TCDF	X	X	X			X	X
TCDD	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contamina

3.9W	5W	6NAV	6W	7W	9W
X	X	X	X		X
X	X	**X**			
X					
X	X	**X**	**X**	X	X
X					**X**
X			X	**X**	
X	X	X	X	**X**	

ants as meeting PRGs.

Table 4.2-14
SDUs that meet PRGs for RAO 5 under Alternative B.
Portland Harbor Superfund Site
Portland, OR

	SDU							
Contaminant	**2E**	**3.5E**	**4.5E**	**5.5E**	**6.5E**	**SIL**	**11E**	**3.9W**
BEHP	X				X	**X**	**X**	
Cadmium	X	X	X	X	X	X	X	X
Chlordanes	X	X	X	X	X	X	**X**	X
Copper	X	X	X	X	X	X	X	X
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	X
Dieldrin	X	X	X	X	X	X	X	X
Lindane	X	X		X	X	X	X	X
Lead	X	X	X	X	X	X	X	X
Mercury	X	X	X	X	X	X	X	X
PCBs	**X**			X	**X**	**X**		X
PAHs	X	X	X	X	X	X	X	X
TBT	X	X	X	X	X	X	X	X
Zinc	X	X	X	X	X	X	X	X

Note: The spatial scale for evaluating this RAO is 0.2 RM, but the SDU is 1 RM. Therefore, there may still be r

5W	6NAV	6W	7W	9W
X				
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	**X**		X
X	X	X	**X**	X
X	X	X	X	X
X	X	X	**X**	X
X	X	X	X	X
X	X	X	X	X
X	X	X		
X			X	X
X	X	X	X	X
X	X	X	X	X

risks at the 0.2 RM scale that need to be addressed.

Table 4.2-15
SDUs that meet PRGs for RAO 6 under Alternative B.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
DDx	X	X	X	X	X	X	X	X
DDE	X	X		X	X	X	X	
PCBs					X	X		X
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminan

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X			
X	X	X		
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X	X		X
X	X	X	X	X

ts as meeting PRGs.

Table 4.2-16

SDUs that meet PRGs for RAO 1 under Alternative D.

Portland Harbor Superfund Site

Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
Arsenic		X			X	X	X	
PCBs	X	X	X	X	X	X	X	X
cPAHs						X	X	
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Notes:

The spatial scale for evaluating this RAO is 0.5 RM, but the SDU is 1 RM. Therefore, there may still be risks a

Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminants as

5W	6NAV	6W	7W	9W
	X	X		
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

t the 0.5 RM scale that need to be addressed.
meeting PRGs.

Table 4.2-17
SDUs that meet PRGs for RAO 2 under Alternative D.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU						
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E
Aldrin	X	X		X	X	X	X
Chlordanes		X			X	X	
DDx		X			X	X	
Dieldrin		X			X	X	
Hexachlorobenzene							
PCBs							
cPAHs	X	X	X	X	X	X	X
HxCDF	X	X			X		X
PeCDD	X	X	X			X	
PeCDF	X	X				X	X
TCDF	X	X	X		X	X	X
TCDD	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contamina

3.9W	5W	6NAV	6W	7W	9W
X	X	X	X	**X**	X
X	X	X			
		X			
X					
X	X	X	X	X	X
X					X
X	**X**		X	X	
X	X	X	X	X	

ants as meeting PRGs.

Table 4.2-18
SDUs that meet PRGs for RAO 5 under Alternative D.
Portland Harbor Superfund Site
Portland, OR

	SDU							
Contaminant	**2E**	**3.5E**	**4.5E**	**5.5E**	**6.5E**	**SIL**	**11E**	**3.9W**
BEHP	X				X	X	X	
Cadmium	X	X	X	X	X	X	X	X
Chlordanes	X	X	X	X	X	X	X	X
Copper	X	X	X	X	X	X	X	X
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	X
Dieldrin	X	X	X	X	X	X	X	X
Lindane	X	X	**X**	X	X	X	X	X
Lead	X	X	X	X	X	X	X	X
Mercury	X	X	X	X	X	X	X	X
PCBs	X	**X**	**X**	X	X	X		X
PAHs	X	X	X	X	X	X	X	X
TBT	X	X	X	X	X	X	X	X
Zinc	X	X	X	X	X	X	X	X

Note: The spatial scale for evaluating this RAO is 0.2 RM, but the SDU is 1 RM. Therefore, there may still be r

5W	6NAV	6W	7W	9W
X	X	X		
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X		X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

isks at the 0.2 RM scale that need to be addressed.

Table 4.2-19
SDUs that meet PRGs for RAO 6 under Alternative D.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
DDx	X	X	X	X	X	X	X	X
DDE	X	X	**X**	X	X	X	X	
PCBs					X	X		X
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminan

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X			
X	X	X		
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X	X		X
X	X	X	X	X

ts as meeting PRGs.

Table 4.2-20

SDUs that meet PRGs for RAO 1 under Alternative E.

Portland Harbor Superfund Site

Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
Arsenic		X	**X**		X	X	X	
PCBs	X	X	X	X	X	X	X	X
cPAHs		**X**				X	X	
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Notes:

The spatial scale for evaluating this RAO is 0.5 RM, but the SDU is 1 RM. Therefore, there may still be risks a

Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminants as

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X	X	X	X
				X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

t the 0.5 RM scale that need to be addressed.
meeting PRGs.

Table 4.2-21
SDUs that meet PRGs for RAO 2 under Alternative E.
Portland Harbor Superfund Site
Portland, OR

	SDU						
Contaminant	**2E**	**3.5E**	**4.5E**	**5.5E**	**6.5E**	**SIL**	**11E**
Aldrin	X	X		X	X	X	X
Chlordanes		X			X	X	
DDx		X			X	X	
Dieldrin		X			X	X	
Hexachlorobenzene							
PCBs							
cPAHs	X	X	X	X	X	X	X
HxCDF	X	X			X		X
PeCDD	X	X	X			X	
PeCDF	X	X				X	X
TCDF	X	X	X		X	X	X
TCDD	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contamina

3.9W	5W	6NAV	6W	7W	9W
X	X	X	X	X	X
X	X	X	**X**		
		X			
X					
X	X	X	X	X	X
X		**X**			X
X	X	**X**	X	X	**X**
					X
X	X	X	X	X	**X**

ants as meeting PRGs.

Table 4.2-22
SDUs that meet PRGs for RAO 5 under Alternative E.
Portland Harbor Superfund Site
Portland, OR

	SDU							
Contaminant	**2E**	**3.5E**	**4.5E**	**5.5E**	**6.5E**	**SIL**	**11E**	**3.9W**
BEHP	X				X	X	X	
Cadmium	X	X	X	X	X	X	X	X
Chlordanes	X	X	X	X	X	X	X	X
Copper	X	X	X	X	X	X	X	X
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	X
Dieldrin	X	X	X	X	X	X	X	X
Lindane	X	X	X	X	X	X	X	X
Lead	X	X	X	X	X	X	X	X
Mercury	X	X	X	X	X	X	X	X
PCBs	X	X	X	X	X	X	**X**	X
PAHs	X	X	X	X	X	X	X	X
TBT	X	X	X	X	X	X	X	X
Zinc	X	X	X	X	X	X	X	X

Note: The spatial scale for evaluating this RAO is 0.2 RM, but the SDU is 1 RM. Therefore, there may still be r

5W	6NAV	6W	7W	9W
X	X	X		
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	**X**	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	**X**
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

isks at the 0.2 RM scale that need to be addressed.

Table 4.2-23
SDUs that meet PRGs for RAO 6 under Alternative E.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	
PCBs					X	X		X
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminan

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X	**X**		
X	X	X	**X**	
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X	X		X
X	X	X	X	X

ts as meeting PRGs.

Table 4.2-24

SDUs that meet PRGs for RAO 1 under Alternative F.

Portland Harbor Superfund Site

Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
Arsenic	X	X	X	X	X	X	X	
PCBs	X	X	X	X	X	X	X	X
cPAHs		X				X	X	
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Notes:

The spatial scale for evaluating this RAO is 0.5 RM, but the SDU is 1 RM. Therefore, there may still be risks a

Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminants as

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X	X	X	X
			X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

t the 0.5 RM scale that need to be addressed.
meeting PRGs.

Table 4.2-25
SDUs that meet PRGs for RAO 2 under Alternative F.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU						
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E
Aldrin	X	X	**X**	X	X	X	X
Chlordanes	**X**	X		**X**	X	X	
DDx	**X**	X	**X**	**X**	X	X	**X**
Dieldrin		X			X	X	**X**
Hexachlorobenzene							
PCBs							
cPAHs	X	X	X	X	X	X	X
HxCDF	X	X	**X**		X		X
PeCDD	X	X	X			X	
PeCDF	X	X				X	X
TCDF	X	X	X		X	X	X
TCDD	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contamina

3.9W	5W	6NAV	6W	7W	9W
X	X	X	X	X	X
X	X	X	X	X	X
		X			X
X	X	X	X		X
		X	X		
X	X	X	X	X	X
X		X	X		X
X	X	X	X	X	X
			X		X
			X		X
X	X	X	X	X	X

ants as meeting PRGs.

Table 4.2-26
SDUs that meet PRGs for RAO 5 under Alternative F.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
BEHP	X		X	X	X	X	X	
Cadmium	X	X	X	X	X	X	X	X
Chlordanes	X	X	X	X	X	X	X	X
Copper	X	X	X	X	X	X	X	X
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	X
Dieldrin	X	X	X	X	X	X	X	X
Lindane	X	X	X	X	X	X	X	X
Lead	X	X	X	X	X	X	X	X
Mercury	X	X	X	X	X	X	X	X
PCBs	X	X	X	X	X	X	X	X
PAHs	X	X	X	X	X	X	X	X
TBT	X	X	X	X	X	X	X	X
Zinc	X	X	X	X	X	X	X	X

Note: The spatial scale for evaluating this RAO is 0.2 RM, but the SDU is 1 RM. Therefore, there may still be r

5W	6NAV	6W	7W	9W
X	X	X		X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

isks at the 0.2 RM scale that need to be addressed.

Table 4.2-27
SDUs that meet PRGs for RAO 6 under Alternative F.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	
PCBs	**X**	**X**	**X**	**X**	X	X	**X**	X
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminan

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X	X		**X**
X	X	X	X	**X**
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X	X		X
X	X	X	X	X

ts as meeting PRGs.

Table 4.2-28

SDUs that meet PRGs for RAO 1 under Alternative G.

Portland Harbor Superfund Site

Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
Arsenic	X	X	X	X	X	X	X	**X**
PCBs	X	X	X	X	X	X	X	X
cPAHs	**X**	X				X	X	
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Notes:

The spatial scale for evaluating this RAO is 0.5 RM, but the SDU is 1 RM. Therefore, there may still be risks a

Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminants as

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X	X	X	X
			X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

t the 0.5 RM scale that need to be addressed.
meeting PRGs.

Table 4.2-29
SDUs that meet PRGs for RAO 2 under Alternative G.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU						
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E
Aldrin	X	X	X	X	X	X	X
Chlordanes	X	X	**X**	X	X	X	**X**
DDx	X	X	X	X	X	X	X
Dieldrin		X		**X**	X	X	X
Hexachlorobenzene							
PCBs							
cPAHs	X	X	X	X	X	X	X
HxCDF	X	X	X		X		X
PeCDD	X	X	X	**X**	**X**	X	**X**
PeCDF	X	X	**X**			X	X
TCDF	X	X	X		X	X	X
TCDD	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contamina

3.9W	5W	6NAV	6W	7W	9W
X	X	X	X	X	X
X	X	X	X	X	X
	X	X	**X**		X
X	X	X	X		X
		X	X	**X**	
X	X	X	X	X	X
X	**X**	X	X		X
X	X	X	X	X	X
X			X		X
X		**X**	X		X
X	X	X	X	X	X

ants as meeting PRGs.

Table 4.2-30
SDUs that meet PRGs for RAO 5 under Alternative G.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
BEHP	X	X	X	X	X	X	X	
Cadmium	X	X	X	X	X	X	X	X
Chlordanes	X	X	X	X	X	X	X	X
Copper	X	X	X	X	X	X	X	X
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	X
Dieldrin	X	X	X	X	X	X	X	X
Lindane	X	X	X	X	X	X	X	X
Lead	X	X	X	X	X	X	X	X
Mercury	X	X	X	X	X	X	X	X
PCBs	X	X	X	X	X	X	X	X
PAHs	X	X	X	X	X	X	X	X
TBT	X	X	X	X	X	X	X	X
Zinc	X	X	X	X	X	X	X	X

Note: The spatial scale for evaluating this RAO is 0.2 RM, but the SDU is 1 RM. Therefore, there may still be r

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

isks at the 0.2 RM scale that need to be addressed.

Table 4.2-31
SDUs that meet PRGs for RAO 6 under Alternative G.
Portland Harbor Superfund Site
Portland, OR

Contaminant	SDU							
	2E	3.5E	4.5E	5.5E	6.5E	SIL	11E	3.9W
DDx	X	X	X	X	X	X	X	X
DDE	X	X	X	X	X	X	X	**X**
PCBs	X	X	X	X	X	X	X	X
HxCDF	X	X	X	X	X	X	X	X
PeCDD	X	X	X	X	X	X	X	X
PeCDF	X	X	X	X	X	X	X	X
TCDF	X	X	X	X	X	X	X	X
TCDD	X	X	X	X	X	X	X	X

Note: Dioxins and furans have low data density; thus, this type of analysis may overpredict these contaminan

5W	6NAV	6W	7W	9W
X	X	X	X	X
X	X	X	**X**	X
X	X	X	X	X
X	X	X	**X**	X
X	X	X	X	X
X	X	X		X
X	X	X		X
X	X	X	X	X

ts as meeting PRGs.