

Appendix I

Sediment Data

Redwood City Harbor Navigation Improvement Integrated
Feasibility Report and EIS/EIR

June 2015

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Nov-95										Nov-97			
	1	2	3	4	5	6	7	8	9	10	9A	9B	10A	10B
Grain Size (% dry wt)														
Sand/Gravel (>0.063 mm)	2.6	1.4	1	1.2	2.2	1	0.3	0.4	0.6	0.7	7	7.6	6	5
Silt (0.004 mm - 0.063 mm)	40.6	40	41	37.4	34.4	33.3	30.7	32.1	30.3	29.4	29	30	29	29
Clay (<0.004 mm)	56.8	58.6	58	61.4	63.4	65.7	69	67.5	68.8	69.9	64	64	66	66
Conventionals														
% Solids (%)	41.5	44.1	43	41	40.4	41.8	39.6	38.8	36.7	37.4	37	33	34	35
TOC (%)	1.48	1.25	1.2	1.42	1.33	1.31	1.35	1.36	1.47	1.46	0.68	0.85	1.4	1.2
Metals (mg/kg, ppm, dry wt)														
Antimony														
Arsenic	8.2	7.4	7.2	7.9	8.3	8.2	7.9	9.4	7.8	7.7	9.4	9.9	9.2	7.4
Barium														
Beryllium														
Cadmium	0.18	0.14	0.1	0.17	0.24	0.2	0.2	0.26	0.29	0.27	0.2	0.39	0.35	0.36
Chromium	97.4	76.2	75	82.2	92.3	93.6	92.2	103	95.3	86.7	190	170	140	160
Cobalt														
Copper	47.1	40.7	41	46	50.6	51.4	49.4	60.8	57.9	58.3	74	75	68	75
Lead	37.4	33.4	33	37.6	41.1	41.7	42.5	49	47.4	45.2	54	50	47	45
Mercury	0.32	0.33	0.3	0.33	0.36	0.36	0.34	0.39	0.41	0.4	0.84	0.48	0.54	0.53
Nickel	89.1	77	75	84.1	91	90.6	89.3	99.5	95.1	90.6	140	160	110	130
Selenium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.41	0.35	0.38	0.37
Silver	0.65	0.57	0.6	0.62	0.66	0.71	0.68	0.66	0.87	0.96	1.1	0.75	0.85	0.89
Thallium														
Vanadium														
Zinc	116	108	106	118	129	128	126	146	138	132	190	200	150	190
Butyltins (microgram/kg, ppb, dry wt)														
Monobutyltin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<1.0
Dibutyltin	<10	<10	<10	<10	<10	<10	<10	<10	19	14	8.2	6.3	6.5	8.3
Tributyltin	<10	11	14	12	12	17	<10	<10	26	19	5.9	6.6	5.1	6
Tetrabutyltin	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	<1.0
Total (Σ detected) Butyltins	0	11	14	12	12	17	0	0	45	33	14.1	12.9	11.6	14.3
Pesticides (microgram/kg, ppb, dry)														
Aldrin	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
alpha-BHC	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
beta-BHC	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
delta-BHC	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
Gamma-BHC (Lindane)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
Total BHCs														
alpha-Chlordane														
gamma-Chlordane														

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Sediment Chemistry

Analyte	Nov-95										Nov-97			
	1	2	3	4	5	6	7	8	9	10	9A	9B	10A	10B
Chlordane	--	--	--	--	--	--	--	--	--	--	<6.0	<6.0	<6.0	<6.0
Total Chlordane														
4,4'-DDD	<2	<2	<2	<2	<2	5	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
4,4'-DDE	<2	<2	<2	<2	2	6	2	5	3	3	5.4	3.6	4.4	4.5
4,4'-DDT	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
2,4'-DDD	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDE	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4'-DDT	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total (Σ detected) DDTs	0	0	0	0	2	11	2	5	3	3	5.4	3.6	4.4	4.5
Dieldrin	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
Endosulfan I	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
Endosulfan II	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
Endosulfan sulfate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<3.0	<3.0	<3.0	<3.0
Endrin	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	3	7.6	6.2
Endrin Aldehyde	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
Endrin Ketone														
Heptachlor	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<3.0	<3.0	<3.0	<3.0
Heptachlor epoxide	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<3.0	<3.0	<3.0	<3.0
Methoxychlor														
Toxaphene	--	--	--	--	--	--	--	--	--	--	<45	<45	<45	<45
trans-Nonachlor														
Aroclor PCBs (microgram/kg, ppb dry wt)														
PCB 1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB 1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB 1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB 1242	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<30	<30	<30	<30
PCB 1248	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<30	<30	<30	<30
PCB 1254	<50	<50	<50	<50	<50	180	<50	180	84	73	<30	<30	<30	<30
PCB 1260	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	51	33	56	42
Total (Σ detected) PCBs	0	0	0	0	0	180	0	180	84	73	51	33	56	42
PCB Congeners (microgram/kg, ppb dry wt)														
PCB008														
PCB018														
PCB028														
PCB031														
PCB033														
PCB044														
PCB049														
PCB052														

Sediment Chemistry

Analyte	Nov-95										Nov-97			
	1	2	3	4	5	6	7	8	9	10	9A	9B	10A	10B
PCB056														
PCB060														
PCB066														
PCB070														
PCB074														
PCB087														
PCB095														
PCB097														
PCB099														
PCB101														
PCB105														
PCB110														
PCB118														
PCB128														

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Sediment Chemistry

Analyte	Nov-95										Nov-97			
	1	2	3	4	5	6	7	8	9	10	9A	9B	10A	10B
PCB132														
PCB138/158														
PCB141														
PCB149														
PCB151														
PCB153														
PCB156														
PCB170														
PCB174														
PCB177														
PCB180														
PCB183														
PCB187														
PCB194														
PCB195														
PCB201														
PCB203														
Total (Σ detected) PCB Congeners														
PAHs (micrograms/kg, ppb, dry wt)														
1-Methylnaphthalene														
1-Methylphenanthrene														
2,3,5-Trimethylnaphthalene														
2,6-Dimethylnaphthalene														
2-Methylnaphthalene														
Acenaphthene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<22	<22	<22	<22
Acenaphthylene	<20	<20	<20	<20	<20	34	<20	<20	<20	<20	<22	<22	<22	<22
Anthracene	<20	<20	<20	<20	<20	74	<20	32	21	27	22	57	59	54
Benzo(a)anthracene	40	36	43	29	34	120	38	53	41	45	65	120	120	120
Benzo(a)pyrene	90	81	95	68	84	290	98	110	110	120	200	390	380	400
Benzo(b)fluoranthene	93	78	100	74	92	340	110	120	130	130	140	290	350	340
Benzo(e)pyrene														
Benzo(g,h,i)perylene	98	86	100	73	98	310	110	120	120	130	210	390	380	400
Benzo(k)fluoranthene	28	30	26	21	27	99	30	44	39	48	120	240	230	230
Biphenyl														
Chrysene	47	40	48	34	39	150	46	65	54	57	87	160	180	160
Dibenzo(a,h)anthracene	<20	<20	<20	<20	<20	32	<20	<20	<20	<20	<57	<57	<57	<57
Dibenzothiophene														
Fluoranthene	150	130	150	120	120	440	130	180	130	150	150	270	270	270
Fluorene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<22	<22	<22	<22
Indeno(1,2,3-cd)pyrene	75	69	81	57	82	280	100	110	100	110	250	480	500	540

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Sediment Chemistry

Analyte	Nov-95										Nov-97			
	1	2	3	4	5	6	7	8	9	10	9A	9B	10A	10B
Naphthalene	<20	<20	<20	<20	<20	29	<20	<20	<20	<20	<22	<22	<22	<22
Perylene														
Phenanthrene	58	45	53	42	40	130	38	63	41	47	70	120	130	130
Pyrene	210	170	210	170	180	690	180	230	220	250	240	420	440	420
Total LPAHs														
Total HPAHs														
Total (Σ detected)PAHs	889	765	926	688	796	3018	880	1127	1006	1114	1600	2900	3000	3100
Dioxins/Furans (ng/kg, dry wt)														
2,3,7,8-Tetra CDD														
1,2,3,7,8-Penta CDD														
1,2,3,4,7,8-Hexa CDD														
1,2,3,6,7,8-Hexa CDD														
1,2,3,7,8,9-Hexa CDD														
1,2,3,4,6,7,8-Hepta CDD														
Total Octa CDD														
Total Tetra CDD														
Total Penta CDD														
Total Hexa CDD														
Total Hepta CDD														
2,3,7,8-Tetra CDF														
1,2,3,7,8-Penta CDF														
2,3,4,7,8-Penta CDF														
1,2,3,4,7,8-Hexa CDF														
1,2,3,6,7,8-Hexa CDF														
2,3,4,6,7,8-Hexa CDF														
1,2,3,7,8,9-Hexa CDF														
1,2,3,4,6,7,8-Hepta CDF														
1,2,3,4,7,8,9-Hepta CDF														
Octa CDF														
Total Tetra CDF														
Total Penta CDF														
Total Hexa CDF														
Total Hepta CDF														
Total TEQ														
Effects Range-Median Quotient (ERMq)														
FOOTNOTES:														
Exceeds SF Bay Ambient Levels														
Exceeds SF-DODS Database Values*														
Exceeds more than one reference value														

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	May-01							
	1	2	3	4	5	6	7	SF-11
Grain Size (% dry wt)								
Sand/Gravel (>0.063 mm)	2.9	2	1.1	0.7	0.8	0.8	1.7	90.7
Silt (0.004 mm - 0.063 mm)	56.7	56.7	61.7	65.6	86.9	69.4	71.1	0.5
Clay (<0.004 mm)	40.3	41.3	37.1	33.7	30.4	29.8	27.2	1.8
Conventionals								
% Solids (%)	43.6	44	41.1	40	38.3	38.3	38.6	83.5
TOC (%)	1.4	1.3	1.4	1.5	1.4	1.5	1.6	0.2
Metals (mg/kg, ppm, d)								
Antimony								
Arsenic	8.8	8.8	9.3	9.4	9.4	9.2	8.9	5.4
Barium								
Beryllium								
Cadmium	<0.2	<0.2	<0.2	<0.3	<0.3	<0.3	0.4	<0.1
Chromium	80.5	7.8	79.8	86.2	87.2	86.6	88.7	18
Cobalt								
Copper	42.4	44.4	44.6	46	49.6	49.6	67	2.5
Lead	27.9	31.5	27.7	28.6	30.7	32	42.9	3.1
Mercury	0.31	0.29	0.25	0.29	0.33	0.32	0.42	<0.02
Nickel	78.8	80	84.7	86.9	90.5	87	93.1	18.8
Selenium	0.7	0.6	0.7	0.7	0.7	0.6	0.7	<0.1
Silver	0.4	0.5	0.3	2	0.4	0.3	0.8	<0.1
Thallium								
Vanadium								
Zinc	102	107	108	112	118	120	134	13.5
Butyltins (microgram/k)								
Monobutyltin	<4.6	<4.5	<4.9	<5.0	<5.2	<5.2	<5.2	<2.4
Dibutyltin	<4.6	<4.5	<4.9	<5.0	<5.2	<5.2	<5.2	<2.4
Tributyltin	<2.3	<2.3	<2.4	<2.5	<2.6	<2.6	<2.6	<1.2
Tetrabutyltin	<2.3	<2.3	<2.4	<2.5	<2.6	<2.6	<2.6	<1.2
Total (Σ detected) Butyltins	0	0	0	0	0	0	0	0
Pesticides (microgra								
Aldrin	<1.22	<1.20	<1.29	<1.33	<1.38	<1.38	<1.37	<0.63
alpha-BHC	<2.29	<2.27	<2.43	<2.51	<2.61	<2.61	<2.59	<1.20
beta-BHC	<1.41	<1.40	<1.5	<1.54	<1.61	<1.61	<1.59	<1.74
delta-BHC	<1.47	<1.45	<1.56	<1.6	<1.67	<1.67	<1.66	<1.77
Gamma-BHC (Lindane)	<1.44	<1.43	<1.53	<1.58	<1.64	<1.64	<1.63	<0.75
Total BHCs								
alpha-Chlordane								
gamma-Chlordane								

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Sediment Chemistry

Analyte	May-01							
	1	2	3	4	5	6	7	SF-11
Chlordane	<5.42	<5.29	<5.75	<5.93	<6.17	<6.17	<6.13	<2.83
Total Chlordane								
4,4'-DDD	<1.41	<1.40	<1.5	<1.54	<1.61	<1.61	<1.59	<0.74
4,4'-DDE	<1.23	<1.22	<1.3	<1.34	<1.40	<1.40	<1.39	<0.64
4,4'-DDT	<2.29	<2.27	<2.43	<2.51	<2.61	<2.61	<2.59	<1.20
2,4'-DDD	<1.41	<1.40	<1.5	<1.54	<1.61	<1.61	<1.59	<0.74
2,4'-DDE	<1.23	<1.22	<1.3	<1.34	<1.40	<1.40	<1.39	<0.64
2,4'-DDT	<2.29	<2.27	<2.43	<2.51	<2.61	<2.61	<2.59	<1.20
Total (Σ detected) DDTs	0	0	0	0	0	0	0	0
Dieldrin	<1.49	<1.48	<1.58	<1.63	<1.70	<1.70	<1.69	<0.78
Endosulfan I	<1.87	<1.85	<1.98	<2.04	<2.13	<2.13	<2.11	<0.98
Endosulfan II	<1.95	<1.93	<2.07	<2.13	<2.22	<2.22	<2.20	<1.02
Endosulfan sulfate	<1.65	<1.64	<1.75	<1.80	<1.88	<1.88	<1.87	<0.86
Endrin	<1.72	<1.70	<1.82	<1.88	<1.96	<1.96	<1.94	<0.90
Endrin Aldehyde	<1.86	0.84	<1.97	<2.03	<2.11	<2.11	<2.10	<0.97
Endrin Ketone								
Heptachlor	<1.92	<1.90	<1.03	<2.09	<2.18	<2.18	<2.16	<1.00
Heptachlor epoxide	<1.90	<1.89	<2.02	<2.08	<2.17	<2.17	<2.15	<0.99
Methoxychlor								
Toxaphene	<10.1	<10.0	<10.7	<11	<11.5	<11.5	<11.4	<5.27
trans-Nonachlor								
Aroclor PCBs (microg/g)								
PCB 1016	--	--	--	--	--	--	--	--
PCB 1221	--	--	--	--	--	--	--	--
PCB 1232	--	--	--	--	--	--	--	--
PCB 1242	<5.3	<5.2	<5.6	<5.8	<6.0	<6.0	<6.0	<2.8
PCB 1248	<5.3	<5.2	<5.6	<5.8	<6.0	<6.0	<6.0	<2.8
PCB 1254	<5.3	<5.2	<5.6	<5.8	<6.0	<6.0	<6.0	<2.8
PCB 1260	<5.3	<5.2	<5.6	<5.8	<6.0	<6.0	<6.0	<2.8
Total (Σ detected) PCBs	0	0	0	0	0	0	0	0
PCB Congeners (microg/g)								
PCB008								
PCB018								
PCB028								
PCB031								
PCB033								
PCB044								
PCB049								
PCB052								

Sediment Chemistry

Analyte	May-01							
	1	2	3	4	5	6	7	SF-11
PCB056								
PCB060								
PCB066								
PCB070								
PCB074								
PCB087								
PCB095								
PCB097								
PCB099								
PCB101								
PCB105								
PCB110								
PCB118								
PCB128								

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Sediment Chemistry

Analyte	May-01							
	1	2	3	4	5	6	7	SF-11
PCB132								
PCB138/158								
PCB141								
PCB149								
PCB151								
PCB153								
PCB156								
PCB170								
PCB174								
PCB177								
PCB180								
PCB183								
PCB187								
PCB194								
PCB195								
PCB201								
PCB203								
Total (Σ detected) PCB Co								
PAHs (micrograms/k								
1-Methylnaphthalene								
1-Methylphenanthrene								
2,3,5-Trimethylnaphthalene								
2,6-Dimethylnaphthalene								
2-Methylnaphthalene								
Acenaphthene	<8.3	<8.2	<8.8	<9.0	<9.4	<9.4	<9.3	<4.3
Acenaphthylene	<10.8	<10.7	<11.4	<11.8	<12.3	<12.3	<12.2	<5.6
Anthracene	<14.4	<14.3	<15.3	<15.8	<16.4	<16.4	<16.3	<7.5
Benzo(a)anthracene	64	59	<16.3	<16.8	<17.5	<17.5	<17.4	<8.0
Benzo(a)pyrene	149	140	40	40	30	27	20	<8.9
Benzo(b)fluoranthene	100	92	<21.7	27	<23.2	25	<23.1	<10.7
Benzo(e)pyrene								
Benzo(g,h,i)perylene	85	96	<23.6	<24.3	<25.3	<25.3	<25.1	<11.6
Benzo(k)fluoranthene	50	44	<16.5	<17.0	<17.8	<17.8	<17.6	<8.1
Biphenyl								
Chrysene	67	67	13	13	<10.2	<10.2	<10.1	<4.7
Dibenzo(a,h)anthracene	<21.1	<20.9	<22.4	<23.1	24	<24	<23.8	<11
Dibenzothiophene								
Fluoranthene	191	176	80	91	45	91	21	<6.9
Fluorene	<10.6	<10.5	<11.2	<11.5	<12	<12	<11.9	<5.5
Indeno(1,2,3-cd)pyrene	99	92	<24.3	27	27	<26.1	<25.9	<12

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Sediment Chemistry

Analyte	May-01							
	1	2	3	4	5	6	7	SF-11
Naphthalene	<4.4	<4.3	<4.6	<4.8	<5.0	<5.0	<4.9	<5.0
Perylene								
Phenanthrene	80	72	25	16	<11	<11	<10.9	<2.3
Pyrene	263	231	117	128	79	148	102	<7.3
Total LPAHs								
Total HPAHs								
Total (Σ detected)PAHs	1148	1069	275	342	181	239	291	143
Dioxins/Furans (ng/k								
2,3,7,8-Tetra CDD								
1,2,3,7,8-Penta CDD								
1,2,3,4,7,8-Hexa CDD								
1,2,3,6,7,8-Hexa CDD								
1,2,3,7,8,9-Hexa CDD								
1,2,3,4,6,7,8-Hepta CDD								
Total Octa CDD								
Total Tetra CDD								
Total Penta CDD								
Total Hexa CDD								
Total Hepta CDD								
2,3,7,8-Tetra CDF								
1,2,3,7,8-Penta CDF								
2,3,4,7,8-Penta CDF								
1,2,3,4,7,8-Hexa CDF								
1,2,3,6,7,8-Hexa CDF								
2,3,4,6,7,8-Hexa CDF								
1,2,3,7,8,9-Hexa CDF								
1,2,3,4,6,7,8-Hepta CDF								
1,2,3,4,7,8,9-Hepta CDF								
Octa CDF								
Total Tetra CDF								
Total Penta CDF								
Total Hexa CDF								
Total Hepta CDF								
Total TEQ								
Effects Range-Mediar								

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Jun-05					
	1	2	3	4	5	SF-11
Grain Size (% dry wt)						
Sand/Gravel (>0.063 mm)	7.3	6.5	9.6	4.1	4.3	100
Silt (0.004 mm - 0.063 mm)	73.7	76.4	73.4	78	75.5	0
Clay (<0.004 mm)	19	17	17.1	17.9	20.1	0
Conventionals						
% Solids (%)	40.5	34.6	40.5	37.6	37	37.1
TOC (%)	1.28	1.38	1.34	1.45	1.6	0.04
Metals (mg/kg, ppm, d)						
Antimony						
Arsenic	7.12	8.42	7.38	8.75	8.62	8.4
Barium						
Beryllium						
Cadmium	0.15	0.22	0.18	0.21	0.32	0.33
Chromium	116	139	106	135	148	137
Cobalt						
Copper	38.7	48.8	36.8	49	66	61.5
Lead	22.4	27.4	21.1	28.2	38.5	35.3
Mercury	0.288	0.395	0.284	0.364	0.588	0.44
Nickel	80.7	99.5	75	95.1	112	103
Selenium	0.037	<0.025	0.09	<0.02	0.0457	<0.025
Silver	<0.025	0.27	0.16	0.21	0.64	0.67
Thallium						
Vanadium						
Zinc	102	130	100	127	156	151
Butyltins (microgram/k)						
Monobutylin	<1	<1	<1	<1	<1	<1
Dibutylin	<1	<1	<1	<1	<1	<1
Tributylin	<1	<1	<1	<1	<1	<1
Tetrabutylin	<1	<1	<1	<1	<1	<1
Total (Σ detected) Butyltins	0	0	0	0	0	0
Pesticides (microgra						
Aldrin	<1	<1	<1	<1	<1	<1
alpha-BHC	<1	<1	<1	<1	<1	<1
beta-BHC	<1	<1	<1	<1	<1	<1
delta-BHC	<1	<1	<1	<1	<1	<1
Gamma-BHC (Lindane)	<1	<1	<1	<1	<1	<1
Total BHCs						
alpha-Chlordane						
gamma-Chlordane						

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Jun-05					
	1	2	3	4	5	SF-11
Chlordane	<2	<2	<2	<2	<2	<2
Total Chlordane						
4,4'-DDD	<1	<1	<1	<1	<1	<1
4,4'-DDE	<1	<1	<1	<1	<1	<1
4,4'-DDT	<1	<1	<1	<1	<1	<1
2,4'-DDD	<1	<1	<1	<1	<1	<1
2,4'-DDE	<1	<1	<1	<1	<1	<1
2,4'-DDT	<1	<1	<1	<1	<1	<1
Total (Σ detected) DDTs	0	0	0	0	0	0
Dieldrin	<1	<1	<1	<1	<1	<1
Endosulfan I	<1	<1	<1	<1	<1	<1
Endosulfan II	<1	<1	<1	<1	<1	<1
Endosulfan sulfate	<1	<1	<1	<1	<1	<1
Endrin	<1	<1	<1	<1	<1	<1
Endrin Aldehyde	<1	<1	<1	<1	<1	<1
Endrin Ketone						
Heptachlor	<1	<1	<1	<1	<1	<1
Heptachlor epoxide	<1	<1	<1	<1	<1	<1
Methoxychlor						
Toxaphene	<10	<10	<10	<10	<10	<10
trans-Nonachlor						
Aroclor PCBs (microg)						
PCB 1016	<10	<10	<10	<10	<10	<10
PCB 1221	<10	<10	<10	<10	<10	<10
PCB 1232	<10	<10	<10	<10	<10	<10
PCB 1242	<10	<10	<10	<10	<10	<10
PCB 1248	<10	<10	<10	<10	<10	<10
PCB 1254	<10	<10	<10	<10	<10	<10
PCB 1260	<10	<10	<10	<10	<10	<10
Total (Σ detected) PCBs	0	0	0	0	0	0
PCB Congeners (microg)						
PCB008						
PCB018						
PCB028						
PCB031						
PCB033						
PCB044						
PCB049						
PCB052						

Sediment Chemistry

Analyte	Jun-05					SF-11
	1	2	3	4	5	
PCB056						
PCB060						
PCB066						
PCB070						
PCB074						
PCB087						
PCB095						
PCB097						
PCB099						
PCB101						
PCB105						
PCB110						
PCB118						
PCB128						

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Jun-05					
	1	2	3	4	5	SF-11
PCB132						
PCB138/158						
PCB141						
PCB149						
PCB151						
PCB153						
PCB156						
PCB170						
PCB174						
PCB177						
PCB180						
PCB183						
PCB187						
PCB194						
PCB195						
PCB201						
PCB203						
Total (Σ detected) PCB Co						
PAHs (micrograms/kg)						
1-Methylnaphthalene						
1-Methylphenanthrene						
2,3,5-Trimethylnaphthalene						
2,6-Dimethylnaphthalene						
2-Methylnaphthalene						
Acenaphthene	3.7	1.7	1.7	4.6	2.4	<1
Acenaphthylene	7.9	5.7	2.8	4.4	4.8	<1
Anthracene	22.2	12.7	6.1	13.9	15.5	<1
Benzo(a)anthracene	84.3	52.3	84.7	57.4	70.4	<1
Benzo(a)pyrene	124	79.8	50.4	60.5	109	<1
Benzo(b)fluoranthene	89.4	57.1	39.8	57.7	104	<1
Benzo(e)pyrene						
Benzo(g,h,i)perylene	100	74.7	49.7	65	116	<1
Benzo(k)fluoranthene	100	47.6	27.8	47.1	102	<1
Biphenyl						
Chrysene	98.6	54.5	40	88.5	142	<1
Dibenzo(a,h)anthracene	<1	<1	<1	<1	<1	<1
Dibenzothiophene						
Fluoranthene	205	105	81.1	132	145	5.1
Fluorene	5	4	2	5.6	4.5	<1
Indeno(1,2,3-cd)pyrene	101	63	42.6	50.4	96.6	<1

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Jun-05					
	1	2	3	4	5	SF-11
Naphthalene	14.3	9.6	7.7	12.4	16.4	3.1
Perylene						
Phenanthrene	63.9	40.9	24.2	48.1	41.2	4.9
Pyrene	273	146	110	165	218	8.3
Total LPAHs						
Total HPAHs						
Total (Σ detected)PAHs	1297	755	521	813	1188	21
Dioxins/Furans (ng/k)						
2,3,7,8-Tetra CDD						
1,2,3,7,8-Penta CDD						
1,2,3,4,7,8-Hexa CDD						
1,2,3,6,7,8-Hexa CDD						
1,2,3,7,8,9-Hexa CDD						
1,2,3,4,6,7,8-Hepta CDD						
Total Octa CDD						
Total Tetra CDD						
Total Penta CDD						
Total Hexa CDD						
Total Hepta CDD						
2,3,7,8-Tetra CDF						
1,2,3,7,8-Penta CDF						
2,3,4,7,8-Penta CDF						
1,2,3,4,7,8-Hexa CDF						
1,2,3,6,7,8-Hexa CDF						
2,3,4,6,7,8-Hexa CDF						
1,2,3,7,8,9-Hexa CDF						
1,2,3,4,6,7,8-Hepta CDF						
1,2,3,4,7,8,9-Hepta CDF						
Octa CDF						
Total Tetra CDF						
Total Penta CDF						
Total Hexa CDF						
Total Hepta CDF						
Total TEQ						
Effects Range-Mediar						

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-08				
	1	2	3	SF-10	SF-11
Grain Size (% dry wt)					
Sand/Gravel (>0.063 mm)	3.56	2.13	1.6	41.16	99.24
Silt (0.004 mm - 0.063 mm)	40.3	39.5	33	25	0.53
Clay (<0.004 mm)	56.2	59.1	65.4	33.8	0.23
Conventionals					
% Solids (%)	44.13	44.01	40.5	39.78	83.7
TOC (%)	1.33	1.39	1.49	0.9	0.09
Metals (mg/kg, ppm, d)					
Antimony					
Arsenic	8.0	8.91	9.8	10.2	5.01
Barium					
Beryllium					
Cadmium	0.2555	0.469	0.621	0.256	<0.118
Chromium	97.6	94.9	122	81.3	24.8
Cobalt					
Copper	38.1	38.5	52.1	36.8	2.51
Lead	29.8	30.1	41.7	22	11
Mercury	0.28	0.23	0.33	0.16	0.02
Nickel	77.2	77.9	97.5	71.1	21.9
Selenium	0.114	0	0.168	0.145	0.004
Silver	0.54	0.46	0.97	<0.21	<0.12
Thallium					
Vanadium					
Zinc	117	146	172	117	28
Butyltins (microgram/k)					
Monobutyltin	<1.18	<1.28	<1.44	<1.16	<0.65
Dibutyltin	<2.47	<2.67	<3.00	<2.42	<1.36
Tributyltin	<2.13	<2.30	<2.58	<2.08	<1.17
Tetrabutyltin	<1.91	<2.06	<2.32	<1.87	<1.05
Total (Σ detected) Butyltins					
Pesticides (microgra					
Aldrin	<1.12	<1.21	<1.36	<1.10	<0.62
alpha-BHC	<2.15	<2.32	<2.61	<2.10	<1.18
beta-BHC	<1.31	<1.42	<1.59	<1.28	<0.72
delta-BHC	<1.31	<1.42	<1.59	<1.28	<0.72
Gamma-BHC (Lindane)	<1.35	<1.46	<1.64	<1.32	<0.75
Total BHCs					
alpha-Chlordane					
gamma-Chlordane					

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-08				
	1	2	3	SF-10	SF-11
Chlordane	<5.12	<5.52	<6.21	<5.00	<2.82
Total Chlordane					
4,4'-DDD	<1.31	<1.42	<1.59	<1.28	<0.72
4,4'-DDE	<1.16	<1.25	<1.41	<1.13	<0.64
4,4'-DDT	<2.15	<2.32	<2.61	<2.10	<1.18
2,4'-DDD	<1.31	<1.42	<1.59	<1.28	<0.72
2,4'-DDE	<1.16	<1.25	<1.41	<1.13	<0.64
2,4'-DDT	<2.15	<2.32	<2.61	<2.10	<1.18
Total (Σ detected) DDTs					
Dieldrin	<1.40	<1.51	<1.70	<1.37	<0.77
Endosulfan I	<1.76	<1.90	<2.14	<1.72	<0.97
Endosulfan II	<1.83	<1.97	<2.22	<1.79	<1.01
Endosulfan sulfate	<1.55	<1.67	<1.88	<1.51	<0.85
Endrin	<1.63	<1.76	<1.98	<1.60	<0.90
Endrin Aldehyde	<1.74	<1.88	<2.11	<1.70	<0.96
Endrin Ketone					
Heptachlor	<1.81	<1.95	<2.19	<1.76	<1.00
Heptachlor epoxide	<1.78	<1.93	<2.17	<1.74	<0.98
Methoxychlor					
Toxaphene	<18.9	<20.4	<23.0	<18.5	<10.4
trans-Nonachlor					
Aroclor PCBs (microg/l)					
PCB 1016	<5.03	<5.43	<6.11	<4.92	<2.77
PCB 1221	<5.03	<5.43	<6.11	<4.92	<2.77
PCB 1232	<5.03	<5.43	<6.11	<4.92	<2.77
PCB 1242	<5.03	<5.43	<6.11	<4.92	<2.77
PCB 1248	<5.03	<5.43	<6.11	<4.92	<2.77
PCB 1254	<5.03	<5.43	<6.11	<4.92	<2.77
PCB 1260	<5.03	<5.43	<6.11	<4.92	<2.77
Total (Σ detected) PCBs	<5.03	<5.43	<6.11	<4.92	<2.77
PCB Congeners (microg/l)					
PCB008					
PCB018					
PCB028					
PCB031					
PCB033					
PCB044					
PCB049					
PCB052					

Sediment Chemistry

Analyte	Feb-08				
	1	2	3	SF-10	SF-11
PCB056					
PCB060					
PCB066					
PCB070					
PCB074					
PCB087					
PCB095					
PCB097					
PCB099					
PCB101					
PCB105					
PCB110					
PCB118					
PCB128					

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-08				
	1	2	3	SF-10	SF-11
PCB132					
PCB138/158					
PCB141					
PCB149					
PCB151					
PCB153					
PCB156					
PCB170					
PCB174					
PCB177					
PCB180					
PCB183					
PCB187					
PCB194					
PCB195					
PCB201					
PCB203					
Total (Σ detected) PCB Co					
PAHs (micrograms/kg)					
1-Methylnaphthalene					
1-Methylphenanthrene					
2,3,5-Trimethylnaphthalene					
2,6-Dimethylnaphthalene					
2-Methylnaphthalene					
Acenaphthene	<7.74	<8.35	<9.40	<7.56	<4.27
Acenaphthylene	<10.1	<10.9	<12.2	<9.83	<5.55
Anthracene	<13.5	<14.6	<16.4	<13.2	<7.46
Benzo(a)anthracene	17.4	24.9	<17.4	<14.0	<7.90
Benzo(a)pyrene	22.1	35.8	<19.3	<15.5	<8.74
Benzo(b)fluoranthene	21.7	34.1	<23.2	<18.7	<10.5
Benzo(e)pyrene					
Benzo(g,h,i)perylene	<20.9	28.2	<25.4	<20.4	<11.5
Benzo(k)fluoranthene	<14.7	<15.9	<17.9	<14.4	<8.10
Biphenyl					
Chrysene	9.53	16.2	<10.3	<8.32	<4.69
Dibenzo(a,h)anthracene	<19.7	<21.3	<24.0	<19.3	<10.9
Dibenzothiophene					
Fluoranthene	24.6	42.9	21.6	<12.1	<6.82
Fluorene	<10.1	<10.9	<12.2	<9.83	<5.55
Indeno(1,2,3-cd)pyrene	<21.5	26.9	<26.1	<21.0	<11.8

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-08				
	1	2	3	SF-10	SF-11
Naphthalene	<4.11	<4.43	<4.99	<4.01	<2.26
Perylene					
Phenanthrene	11	21.1	<10.9	<8.80	<4.96
Pyrene	34.8	59.4	33.6	<12.8	9.8
Total LPAHs					
Total HPAHs					
Total (Σ detected)PAHs	263	376	285	210	121
Dioxins/Furans (ng/k)					
2,3,7,8-Tetra CDD					
1,2,3,7,8-Penta CDD					
1,2,3,4,7,8-Hexa CDD					
1,2,3,6,7,8-Hexa CDD					
1,2,3,7,8,9-Hexa CDD					
1,2,3,4,6,7,8-Hepta CDD					
Total Octa CDD					
Total Tetra CDD					
Total Penta CDD					
Total Hexa CDD					
Total Hepta CDD					
2,3,7,8-Tetra CDF					
1,2,3,7,8-Penta CDF					
2,3,4,7,8-Penta CDF					
1,2,3,4,7,8-Hexa CDF					
1,2,3,6,7,8-Hexa CDF					
2,3,4,6,7,8-Hexa CDF					
1,2,3,7,8,9-Hexa CDF					
1,2,3,4,6,7,8-Hepta CDF					
1,2,3,4,7,8,9-Hepta CDF					
Octa CDF					
Total Tetra CDF					
Total Penta CDF					
Total Hexa CDF					
Total Hepta CDF					
Total TEQ					
Effects Range-Mediar					

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-11							
	1	2	3	4	5	6	7	SF-10
Grain Size (% dry wt)								
Sand/Gravel (>0.063 mm)	0	0	0	0	0	0	0	0.81
Silt (0.004 mm - 0.063 mm)	42.1	40.2	37.2	33.4	29.2	39.2	40.4	26.1
Clay (<0.004 mm)	55.7	59.1	62.1	65.9	69.9	59.9	58.8	28.4
Conventionals								
% Solids (%)	44.9	42.5	42.2	39.9	38.7	47.2	48.6	53.1
TOC (%)	1.4	1.4	1.4	1.5	1.6	1.4	1.3	1.1
Metals (mg/kg, ppm, d)								
Antimony								
Arsenic	7.95	7.88	7.38	8.22	8.2	7.8	8.0	7.6
Barium								
Beryllium								
Cadmium	0.458	0.460	0.463	0.501	0.6	0.5	0.5	0.4
Chromium	75.70	81.80	81.80	88.70	94.2	81.2	81.1	65.1
Cobalt								
Copper	39.100	39.400	40.700	46.600	57.5	40.5	43.5	38.7
Lead	28.2	26.9	27.1	31.7	37.8	29.0	29.9	19.5
Mercury	0.304	0.288	0.321	0.347	0.4	0.3	0.329	0.156
Nickel	77.4	78.0	80.0	87.8	94.8	79.4	81.8	73.3
Selenium	0.374	0.389	0.425	0.488	0.5	0.4	0.39	<0.067
Silver	0.499	0.447	0.442	0.554	0.763	0.5	0.496	0.249
Thallium								
Vanadium								
Zinc	108	109	112	124	141	115	112	99.5
Butyltins (microgram/k								
Monobutyltin	<2.2	35	<2.3	<2.4	<2.5	<2.1	<2.0	<1.8
Dibutyltin	<1.3	64	<1.4	<1.5	<1.5	<1.3	<1.2	<1.1
Tributyltin	<0.74	<0.79	<0.79	<0.84	<0.86	<0.71	<.69	<0.63
Tetrabutyltin	<0.80	<0.84	<0.85	<0.90	>0.92	<0.76	<0.74	<0.67
Total (Σ detected) Butyltins								
Pesticides (microgra								
Aldrin	<0.69	<0.73	<0.73	<0.77	<0.80	<0.65	<0.64	<0.58
alpha-BHC	<0.66	<0.69	<0.70	<0.74	<0.76	<0.62	<0.61	<0.55
beta-BHC	<0.57	<0.60	<0.60	<0.64	<0.66	<0.54	<0.52	<0.48
delta-BHC	<0.71	<0.75	<0.75	<0.80	<0.82	0.67	<0.65	<0.60
Gamma-BHC (Lindane)	<0.51	<0.54	<0.54	<0.57	<0.59	<0.48	<0.47	<0.43
Total BHCs								
alpha-Chlordane								
gamma-Chlordane								

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-11							
	1	2	3	4	5	6	7	SF-10
Chlordane	<8.9	<9.4	<9.5	<10.0	<10.0	<8.5	<8.2	<7.5
Total Chlordane								
4,4'-DDD	<0.57	<0.61	<0.61	<0.65	<0.67	<0.55	<0.53	<0.49
4,4'-DDE	<1.1	<0.71	1.5	1.1	2.2	1.3	1.3	1.4
4,4'-DDT	<0.73	<0.77	<0.78	<0.82	<0.85	<0.69	<0.67	<0.62
2,4'-DDD	<0.45	<0.47	<0.48	<0.50	<0.52	<0.43	<0.41	<0.38
2,4'-DDE	<0.40	<0.42	<0.42	<0.45	<0.46	<0.38	<0.37	<0.33
2,4'-DDT	<0.31	<0.33	<0.33	<0.35	<0.36	<0.30	<0.29	<0.26
Total (Σ detected) DDTs	1.1	<0.77	1.5	1.1	2.2	1.3	1.3	1.4
Dieldrin	<0.51	<0.53	<0.54	<0.57	<0.59	<0.48	<4.7	0.43
Endosulfan I	<0.79	<0.84	<0.84	<0.89	<0.92	<0.75	<0.73	<0.67
Endosulfan II	<0.39	<0.41	<0.42	<0.44	<0.45	<0.37	<0.36	<0.33
Endosulfan sulfate	<0.59	<0.62	<0.62	<0.66	<0.68	<0.56	<0.54	<0.50
Endrin	<0.45	<0.47	<0.48	<0.51	<0.52	<0.43	<0.41	<0.38
Endrin Aldehyde	<0.44	<0.46	<0.46	<0.49	<0.50	<0.41	<0.40	<0.37
Endrin Ketone								
Heptachlor	<0.50	<0.52	<0.53	<0.56	<0.58	<0.47	<0.46	<0.42
Heptachlor epoxide	<0.41	<0.43	<0.44	<0.46	<0.47	<0.39	<0.38	<0.35
Methoxychlor								
Toxaphene	<19.0	<20.0	<20.0	<21.0	<22.0	<18.0	<17.0	<16
trans-Nonachlor								
Aroclor PCBs (microg								
PCB 1016	<4.5	<4.7	<4.8	<5.1	<5.2	<4.3	<4.1	<3.8
PCB 1221	<4.5	<4.7	<4.7	<5.0	<5.2	<4.2	<4.1	<3.8
PCB 1232	<4.5	<4.7	<4.7	<5.0	<5.2	<4.2	<4.1	<3.8
PCB 1242	<4.5	200,000	<4.7	<5.0	<5.2	<4.2	<4.1	<3.8
PCB 1248	<4.5	<4.7	<4.7	<5.0	<5.2	<4.2	<4.1	<3.8
PCB 1254	<4.5	<4.7	<4.7	<5.0	<5.2	<4.2	<4.1	<3.8
PCB 1260	17.00	<5.2	16.00	16.00	19.00	16.0	14	<4.2
Total (Σ detected) PCBs	17.00	200,000	16.00	16.00	19.00	16.0	14	<4.2
PCB Congeners (microg								
PCB008								
PCB018								
PCB028								
PCB031								
PCB033								
PCB044								
PCB049								
PCB052								

Sediment Chemistry

Analyte	Feb-11							
	1	2	3	4	5	6	7	SF-10
PCB056								
PCB060								
PCB066								
PCB070								
PCB074								
PCB087								
PCB095								
PCB097								
PCB099								
PCB101								
PCB105								
PCB110								
PCB118								
PCB128								

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-11							
	1	2	3	4	5	6	7	SF-10
PCB132								
PCB138/158								
PCB141								
PCB149								
PCB151								
PCB153								
PCB156								
PCB170								
PCB174								
PCB177								
PCB180								
PCB183								
PCB187								
PCB194								
PCB195								
PCB201								
PCB203								
Total (Σ detected) PCB Co								
PAHs (micrograms/k								
1-Methylnaphthalene								
1-Methylphenanthrene								
2,3,5-Trimethylnaphthalene								
2,6-Dimethylnaphthalene								
2-Methylnaphthalene								
Acenaphthene	14.0	49	8.2	13.0	6.6	6.0	6.7	3.5
Acenaphthylene	24.0	39	20.0	19.0	17.0	12.0	13.0	<31.7
Anthracene	32.0	180	37.0	33.0	34.0	22.0	27.0	<3.4
Benzo(a)anthracene	110	980	130	95.0	110	74	88	5.8
Benzo(a)pyrene	250	1000	310	230	290	190	200	12
Benzo(b)fluoranthene	160	1100	220	170	230	130	140	4.8
Benzo(e)pyrene								
Benzo(g,h,i)perylene	240	510	300	230	280	180	180	9.3
Benzo(k)fluoranthene	170	1100	180	150	180	120	140	6.7
Biphenyl								
Chrysene	130	1200	160	120	140	94	110	7.3
Dibenzo(a,h)anthracene	15	97	22	16	20	12	14	<3.7
Dibenzothiophene								
Fluoranthene	210	1600	240	190	190	160	170	14.0
Fluorene	18.0	<41	13.0	16.0	12.0	8.8	10	<3.3
Indeno(1,2,3-cd)pyrene	210	520	260	200	250	160	160	7.5

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Feb-11							
	1	2	3	4	5	6	7	SF-10
Naphthalene	37.0	200	40.0	35.0	40.0	27.0	28.0	4.7
Perylene								
Phenanthrene	120	680	120	84.0	89.0	71.0	88.0	6.2
Pyrene	330	1600	380	290	360	240	270	21
Total LPAHs								
Total HPAHs								
Total (Σ detected)PAHs	2,070	10290	2,377	1,827	2,193	1,468	1,601	99
Dioxins/Furans (ng/k								
2,3,7,8-Tetra CDD								
1,2,3,7,8-Penta CDD								
1,2,3,4,7,8-Hexa CDD								
1,2,3,6,7,8-Hexa CDD								
1,2,3,7,8,9-Hexa CDD								
1,2,3,4,6,7,8-Hepta CDD								
Total Octa CDD								
Total Tetra CDD								
Total Penta CDD								
Total Hexa CDD								
Total Hepta CDD								
2,3,7,8-Tetra CDF								
1,2,3,7,8-Penta CDF								
2,3,4,7,8-Penta CDF								
1,2,3,4,7,8-Hexa CDF								
1,2,3,6,7,8-Hexa CDF								
2,3,4,6,7,8-Hexa CDF								
1,2,3,7,8,9-Hexa CDF								
1,2,3,4,6,7,8-Hepta CDF								
1,2,3,4,7,8,9-Hepta CDF								
Octa CDF								
Total Tetra CDF								
Total Penta CDF								
Total Hexa CDF								
Total Hepta CDF								
Total TEQ								
Effects Range-Mediar								

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Mar-14									
	1	2	3	4	5	6	7	SF-10	1Z	7Z
Grain Size (% dry wt)										
Sand/Gravel (>0.063 mm)	7.9	0	0	0	0	0	0	51		
Silt (0.004 mm - 0.063 mm)	56	65	63	59	61	47	47	35		
Clay (<0.004 mm)	36	35	37	41	39	53	53	14		
Conventionals										
% Solids (%)	44.6	43.3	43.2	42.5	42.6	39	39.4	55.6		45.7
TOC (%)	1.7	1.6	1.6	1.7	1.6	1.8	1.9	1		
Metals (mg/kg, ppm, d)										
Antimony	<0.087	<0.090	<0.090	<0.091	<0.091	<0.099	<0.098	<0.070		
Arsenic	8.22	8.07	8.14	8.23	8.48	8.11	7.57	7.09		
Barium	63	62	59	58	60.4	63.7	69.3	45.7		
Beryllium	0.72J	0.753J	0.62J	0.691J	0.838J	0.813J	0.895J	0.475J		
Cadmium	0.513	0.451	0.486	0.485	0.472	0.476	0.695	0.427		
Chromium	92.8	94.9	91.3	93.4	97.8	98.9	103.0	70.4		
Cobalt	17.2	17.0	16.5	16.4	17.3	17.1	16.8	15.7		
Copper	46.5	45.9	44.0	44.5	47.2	52.3	61.3	36.0		
Lead	29.1	27.3	26.0	26.2	28.1	29.8	36.6	19.4		
Mercury	0.296	0.281	0.248	0.247	0.265	0.268	0.34	0.159		
Nickel	92.1	92.5	88.8	88.9	94.9	98.5	103	75.6		
Selenium	0.517	0.261	0.233	0.354	0.427	0.245J	0.372	0.22		
Silver	0.525	0.415	0.403	0.400	0.419	0.489	0.757	0.194		
Thallium	0.162J	0.176J	0.15J	0.15J	0.163J	0.166J	0.17J	0.106J		
Vanadium	71.6	74.3	71.7	72.1	76.3	76.2	77	66.2		
Zinc	136	135	131	132	141	153	163	111		
Butyltins (microgram/k)										
Monobutyltin	2.6J	<1.5	<1.5	<1.5	2.5J	<1.7	5.4J	<1.2		
Dibutyltin	3.3J	3.1J	2.7J	3.5J	1.6J	4.1J	11	2.9J		
Tributyltin	3J	2.2J	1.5J	3.7J	1.7J	1.6J	3.4J	1.6J		
Tetrabutyltin	<1.7	<1.8	<1.8	<1.8	<1.8	<2	<1.9	<1.4		
Total (Σ detected) Butyltins	8.9	5.3	4.2	7.2	5.8	5.7	19.8	4.5		
Pesticides (microgra										
Aldrin	<0.7	<0.73	<0.72	<0.74	<0.75	<0.81	<0.79	<0.56		
alpha-BHC	<0.73	<0.75	<0.74	<0.76	<0.77	<0.83	<0.81	<0.58		
beta-BHC	<0.59	<0.61	<0.61	<0.62	<0.63	<0.68	<0.66	<0.47		
delta-BHC	<7.3	<7.6	<7.5	<7.7	<7.7	<8.4	<8.2	<5.9		
Gamma-BHC (Lindane)	<0.66	<0.68	<0.67	<0.69	<0.7	<0.76	<0.74	<0.53		
Total BHCs	<0.57	<0.59	<0.59	<0.6	<0.61	<0.66	<0.64	<0.46		
alpha-Chlordane	<0.74	<0.76	<0.76	<0.77	<0.78	<0.85	<0.83	<0.59		
gamma-Chlordane	<0.72	<0.75	<0.74	<0.75	<0.76	<0.83	<0.81	<0.58		

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Mar-14									
	1	2	3	4	5	6	7	SF-10	1Z	7Z
Chlordane	<0.59	<0.61	<0.6	<0.61	<0.62	<0.67	<0.66	<0.47		
Total Chlordane	ND	ND	ND	ND	ND	ND	ND	ND		
4,4'-DDD	<0.71	<0.73	<0.73	<0.74	<0.75	<0.81	<0.79	<0.57		
4,4'-DDE	<0.67	<0.69	<0.69	<0.7	<0.71	<0.77	<0.75	<0.54		
4,4'-DDT	<0.75	<0.78	<0.77	<0.78	<0.79	<0.86	<0.84	<0.6		
2,4'-DDD	<0.76	<0.79	<0.78	<0.79	<0.8	<0.87	<0.85	<0.61		
2,4'-DDE	<0.68	<0.71	<0.7	<0.72	<0.72	<0.79	<0.77	<0.55		
2,4'-DDT	<0.67	<0.7	<0.69	<0.7	<0.71	<0.77	<0.76	<0.54		
Total (Σ detected) DDTs	ND	ND	ND	ND	ND	ND	ND	ND		
Dieldrin	<0.72	<0.74	<0.74	<0.75	<0.76	<0.83	<0.81	<0.57		
Endosulfan I	<0.76	<0.78	<0.78	<0.79	<0.8	<0.87	<0.85	<0.61		
Endosulfan II	<0.8	<0.83	<0.82	<0.84	<0.85	<0.92	<0.9	<0.64		
Endosulfan sulfate	<0.55	<0.57	<0.56	<0.57	<0.58	<0.63	<0.61	<0.44		
Endrin	<0.78	<0.81	<0.8	<0.81	<0.82	<0.89	<0.87	<0.62		
Endrin Aldehyde	<0.71	<0.74	<0.73	<0.74	<0.75	<0.82	<0.8	<0.57		
Endrin Ketone	<0.77	<0.8	<0.8	<0.81	<.82	<0.89	<0.87	<0.62		
Heptachlor	<0.8	<0.82	<0.82	<0.83	<0.84	<0.92	<0.89	<0.64		
Heptachlor epoxide	<0.73	<0.75	<0.75	<0.76	<0.77	<0.84	<0.82	<0.58		
Methoxychlor	<0.63	<0.65	<0.65	<0.66	<0.67	<0.72	<.71	<0.5		
Toxaphene	<14	<15	<15	<15	<15	<16	<16	<11		
trans-Nonachlor	<0.64	<0.67	<0.66	<0.67	<0.68	<0.74	<0.72	<0.52		
Aroclor PCBs (microg)										
PCB 1016										
PCB 1221										
PCB 1232										
PCB 1242										
PCB 1248										
PCB 1254										
PCB 1260										
Total (Σ detected) PCBs										
PCB Congeners (microg)										
PCB008	<0.19	<0.19	<0.2	<0.2	<0.2	<0.22	0.36J	<0.15		<0.19
PCB018	<0.35	<0.36	<0.36	<0.37	<0.37	<0.4	<0.4	<0.28		<0.34
PCB028	0.43J	<0.23	0.26J	0.33J	<0.23	0.35J	0.73J	<0.18		<0.22
PCB031	0.53J	<0.27	<0.27	0.54J	<0.27	<0.3	0.83J	<0.21		<0.25
PCB033	<0.24	<0.25	<0.25	0.31J	<0.25	<0.28	0.37J	<0.19		<0.24
PCB044	0.78J	<0.3	<0.3	0.47J	<0.31	<0.34	<0.33	<0.24		0.97J
PCB049	0.54J	<0.27	<0.27	0.35J	<0.28	<0.3	0.75J	<0.21		0.86J
PCB052	0.99J	<0.22	<0.22	0.7J	<0.23	<0.25	1.1J	<0.17		2

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Mar-14									
	1	2	3	4	5	6	7	SF-10	1Z	7Z
PCB056	<0.31	<.32	<.32	<0.32	<0.32	<0.35	<0.35	<0.25		<0.3
PCB060	<0.24	<0.24	<.24	<.25	<.25	<.27	<0.27	<0.19		<0.23
PCB066	1J	0.49J	0.38J	0.52J	<0.21	<0.23	0.98J	<0.16		1.70
PCB070	0.83J	0.45J	0.26J	0.48J	<0.19	<0.21	0.93J	<0.15		1.1J
PCB074	0.52J	0.23J	<0.22	0.27J	<0.22	<0.24	0.5J	<0.17		0.31J
PCB087	0.32J	<0.23	<0.23	<0.24	<0.24	<0.26	0.63J	<0.18		<0.22
PCB095	0.93J	<0.38	0.46J	0.4J	0.5J	0.59J	1.7	0.53J		2.70
PCB097	0.59J	<0.31	0.36J	0.4J	<0.32	<0.35	0.79J	<0.25		<0.3
PCB099	0.86J	0.43J	0.46J	0.45J	0.38J	0.46J	1.3	0.29J		1.60
PCB101	1.4	0.59J	0.8J	0.76J	0.69J	0.87J	2.4	0.58J		3.90
PCB105	0.6J	<0.24	<0.24	0.39J	<0.25	<0.27	0.95J	<0.19		<0.23
PCB110	1J	0.48J	0.55J	0.62J	<0.24	0.64J	1.9	0.55J		3.00
PCB118	1.1J	0.65J	0.63J	0.71J	0.69J	0.74J	2	0.49J		4.10
PCB128	<0.23	0.24	<0.24	<0.24	<0.24	<0.26	<0.26	<0.18		<0.22

Table I-1
Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Mar-14									
	1	2	3	4	5	6	7	SF-10	1Z	7Z
PCB132	<0.37	<0.38	<0.38	<0.39	<0.39	<0.42	<0.42	<0.3		<0.36
PCB138/158	1.6J	1J	0.99J	1.1J	0.99J	1.3J	3.4	0.7J		5.60
PCB141	<0.25	<0.25	<0.26	<0.26	<0.26	<0.28	<0.28	<0.2		<0.24
PCB149	1.2	0.57J	0.84J	0.66J	0.66J	0.84J	2.2	0.49J		3.60
PCB151	0.31J	<0.24	<0.24	<0.24	<0.24	0.33J	0.91J	0.28J		1.20
PCB153	2	1.1J	1.2	1.2	1.3	1.4	3.9	0.77J		5.50
PCB156	<0.22	<0.23	<0.23	<0.23	<0.23	<0.25	<0.25	<0.18		<0.21
PCB170	0.67J	0.42J	0.46J	<0.22	0.43J	0.67J	1.2J	0.41J		1.50
PCB174	<0.24	<0.25	0.33J	<0.25	<0.25	<0.27	0.89J	<0.19		1.60
PCB177	<0.27	<0.28	<0.28	<0.29	<0.29	<0.32	0.53J	<0.22		0.76J
PCB180	0.84J	0.46J	0.56J	0.63J	0.56J	0.86J	1.9	0.48J		2.90
PCB183	0.28J	<0.26	<0.26	<0.26	<0.26	<0.29	0.58J	<0.2		0.98J
PCB187	0.77J	0.42J	0.56J	0.59J	0.59J	0.72J	1.7	0.4J		2.00
PCB194	0.4J	<0.22	<0.22	0.29J	<0.22	0.43J	0.93J	<0.17		0.96J
PCB195	<0.12	<0.12	<0.12	<0.12	<0.12	<0.14	<0.13	<0.095		<0.12
PCB201	<0.13	<0.13	<0.13	<0.13	<0.13	<0.15	<0.14	<0.1		<0.12
PCB203	<0.24	<0.25	<0.25	<0.25	<0.25	<0.28	<0.27	<0.19		<0.24
Total (Σ detected) PCB Co	20.5	7.29	9.1	12.2	6.79	10.2	36.4	5.97		48.9
PAHs (micrograms/k)										
1-Methylnaphthalene	<4.5	6.3J	5.6J	5.2J	11J	7J	7.1J	3.9J		
1-Methylphenanthrene	<3.6	<3.7	<3.8	<3.8	<3.8	<4.2	<4.1	<2.9		
2,3,5-Trimethylnaphthalene	<3.1	<3.2	<3.3	<3.3	<3.3	<3.6	<3.6	<2.5		
2,6-Dimethylnaphthalene	<3.7	10J	9.7J	10J	21	10J	11J	6.9J		
2-Methylnaphthalene	<4	12J	11J	11J	21J	12J	13J	7.3J		
Acenaphthene	<4	7.9J	7.9J	6.3J	13J	7.2J	7.1J	5.3J		
Acenaphthylene	<3.4	16J	15J	13J	25	13J	14J	7.1J		
Anthracene	6.3J	35	31	26	51	30	30	15J		
Benzo(a)anthracene	<3.1	9.5J	9.2J	10J	17J	11J	10J	5.2J		
Benzo(a)pyrene	20J	100	98	87	170	84	85	38		
Benzo(b)fluoranthene	36	230	220	200	390	230	210	75		
Benzo(e)pyrene	34	160	160	160	310	160	180	60		
Benzo(g,h,i)perylene	27	140	130	130	240	140	150	48		
Benzo(k)fluoranthene	52	260	240	260	470	240	240	81		
Biphenyl	24	110	120	110	180	130	130	41		
Chrysene	21J	120	110	100	190	100	110	43		
Dibenzo(a,h)anthracene	4.4J	26	24	24	48	24J	26	7.8J		
Dibenzothiophene	<3	7J	6.7J	5.8J	11J	6J	5.6J	4.6J		
Fluoranthene	<3.3	13J	13J	12J	22J	13J	13J	8.3J		
Fluorene	42	210	190	180	310	170	170	84		
Indeno(1,2,3-cd)pyrene	45	260	240	250	470	240	260	78		

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	Mar-14									
	1	2	3	4	5	6	7	SF-10	1Z	7Z
Naphthalene	11J	32	27	28	54	31	35	15J		
Perylene	31	110	100	98	200	97	95	71		
Phenanthrene	19J	98	97	81	150	71	68	48		
Pyrene	56	300	280	260	460	250	280	120		
Total LPAHs	36	247	233	208	396	211	214	127		
Total HPAHs	392	2026	1912	1859	3438	1865	1936	747		
Total (Σ detected)PAHs	429	2273	2145	2067	3834	2076	2150	873		
Dioxins/Furans (ng/k)										
2,3,7,8-Tetra CDD	<0.13	<0.16	<0.16	0.28J	<0.14	<0.13	<0.33	<0.22		
1,2,3,7,8-Penta CDD	0.78J	<0.53	0.7J	0.58J	0.76J	0.82J	1.21J	0.44J		
1,2,3,4,7,8-Hexa CDD	0.7J	0.69J	0.59J	0.78J	0.831J	0.99J	1.77J	0.38J		
1,2,3,6,7,8-Hexa CDD	2.62J	2.34J	2.19J	2.57J	2.6J	3.13J	5.70	2.46J		
1,2,3,7,8,9-Hexa CDD	2.2J	2.14J	2.64J	2.7J	<2.5	3.07J	5.71	2.47J		
1,2,3,4,6,7,8-Hepta CDD	47.0	42.5	38.2	42.3J	44.2J	60.7	111.0	35.1		
Total Octa CDD	319	279	265	263	291	400	757	264		
Total Tetra CDD	4.37	5.04	5.05	5.40	6.56	6.09	5.63	1.64J		
Total Penta CDD	5.24	3.04J	3.84J	1.74J	3.69J	2.74J	7.19	1.68J		
Total Hexa CDD	32.0	26.9	27.7	30.3	29.7	37.7	60.9	21.7		
Total Hepta CDD	117	104	94.9	103	109	185	311	80.8		
2,3,7,8-Tetra CDF	3.23	2.87	2.61	3.27	3.30	2.97	3.92	1.66J		
1,2,3,7,8-Penta CDF	0.98J	0.84J	0.9J	0.79J	<0.64	0.91J	1.26J	<0.36		
2,3,4,7,8-Penta CDF	1.71J	1.42J	1.29J	1.61J	1.52J	1.66J	2.38J	0.68J		
1,2,3,4,7,8-Hexa CDF	1.76J	1.5J	1.38J	1.75J	1.76J	1.8J	2.57J	0.97J		
1,2,3,6,7,8-Hexa CDF	1.4J	0.97J	1.18J	0.95J	0.94J	0.96J	1.46J	0.505J		
2,3,4,6,7,8-Hexa CDF	0.86J	0.72J	0.79J	1.07J	0.85J	0.86J	1.31J	0.38J		
1,2,3,7,8,9-Hexa CDF	<0.14	<0.15	<0.12	<0.28	<0.26	<0.23	0.17J	<0.12		
1,2,3,4,6,7,8-Hepta CDF	10.8	9.29	9.33	10.5	<11	13.5	22.8	10.8		
1,2,3,4,7,8,9-Hepta CDF	0.65J	0.53J	0.52J	0.89J	<0.64	<0.75	1.42J	<0.4		
Octa CDF	19.5	17.1	15.2	17.7J	20.1J	22.4J	39.6J	19.5		
Total Tetra CDF	22.9	19.6	16.0	13.8	17.9	14.3	20.8	7.1		
Total Penta CDF	16.0	14.0	13.2	6.97	10.1	11.5	20.6	1.37J		
Total Hexa CDF	16.8	14.5	13.2	11.5	12.7	14.9	25.2	8.35		
Total Hepta CDF	25.5	20.9	20.9	26.9J	14.0J	31.2J	56.4	25.8		
Total TEQ	3.37	2.82	2.93	3.26	3.25	3.69	6.04	2.29		
Effects Range-Mediar	0.07	0.10	0.09	0.09	0.11	0.10	0.11	0.06		

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	SFEI Ambient Sediment >40%				
	Fines		SF-11	SFDODS	HWRP
Grain Size (% dry wt)					
Sand/Gravel (>0.063 mm)	66.3		0-17	16-60	--
Silt (0.004 mm - 0.063 mm)	--		0-3	25-62	
Clay (<0.004 mm)	--		0-6	13-24	
Conventionals					
% Solids (%)	--		1.32 - 2.60	2.34-5.74	--
TOC (%)			0.07--0.19	0.63-1.45	
Metals (mg/kg, ppm, d)					
Antimony					
Arsenic	15.3		13.2	5.3	15.3
Barium					
Beryllium					
Cadmium	0.33		0.4	0.6	0.7
Chromium	112		121.0	283.0	112.0
Cobalt					
Copper	68.1		12.4	86.3	68.1
Lead	43.2		14.4	26.0	43.2
Mercury	0.43		0.156	0.2	0.43
Nickel	112		40.7	238.0	112.0
Selenium	0.64		0.41	2.6	0.64
Silver	0.58		<0.10	1.0	0.58
Thallium					
Vanadium					
Zinc	158		106.8	288	158
Butyltins (microgram/k)					
Monobutyltin				--	--
Dibutyltin				--	--
Tributyltin	--		--	--	--
Tetrabutyltin				--	--
Total (Σ detected) Butyltins					
Pesticides (microgra					
Aldrin				--	--
alpha-BHC				ND	
beta-BHC	--			ND	
delta-BHC				ND	
Gamma-BHC (Lindane)			--	ND	
Total BHCs					
alpha-Chlordane					
gamma-Chlordane					

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	SFEI Ambient Sediment >40% Fines				
			SF-11	SFDODS	HWRP
Chlordane	1.1			ND	1.1
Total Chlordane					
4,4'-DDD	--		--	--	--
4,4'-DDE				--	
4,4'-DDT				--	
2,4'-DDD	--		--	--	
2,4'-DDE				--	
2,4'-DDT				--	
Total (Σ detected) DDTs	7		7	2.1	
Dieldrin	0.44		0.44	NA	0.72
Endosulfan I				ND	--
Endosulfan II				ND	
Endosulfan sulfate				ND	
Endrin				ND	
Endrin Aldehyde				ND	6.4
Endrin Ketone	--		--		
Heptachlor				ND	0.3
Heptachlor epoxide				ND	
Methoxychlor					
Toxaphene					
trans-Nonachlor				--	--
Aroclor PCBs (microg)					
PCB 1016					--
PCB 1221					
PCB 1232					
PCB 1242	--		--	--	
PCB 1248					
PCB 1254					
PCB 1260					
Total (Σ detected) PCBs	26				45
PCB Congeners (microg)					
PCB008					
PCB018					
PCB028					
PCB031					
PCB033					
PCB044					
PCB049					
PCB052					

Sediment Chemistry

Analyte	SFEI Ambient				
	Sediment >40% Fines		SF-11	SFDODS	HWRP
PCB056					
PCB060					
PCB066					
PCB070					
PCB074					
PCB087					
PCB095					
PCB097					
PCB099					
PCB101					
PCB105					
PCB110					
PCB118					
PCB128					

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	SFEI Ambient				
	Sediment >40% Fines		SF-11	SFDODS	HWRP
PCB132					
PCB138/158					
PCB141					
PCB149					
PCB151					
PCB153					
PCB156					
PCB170					
PCB174					
PCB177					
PCB180					
PCB183					
PCB187					
PCB194					
PCB195					
PCB201					
PCB203					
Total (Σ detected) PCB Co	14.8 (29.6)				
PAHs (micrograms/k					
1-Methylnaphthalene	12.1				
1-Methylphenanthrene	31.7				
2,3,5-Trimethylnaphthalene	9.8				
2,6-Dimethylnaphthalene	12.1				
2-Methylnaphthalene	19.4				
Acenaphthene	26.6				
Acenaphthylene	31.7				
Anthracene	88				
Benzo(a)anthracene	244				
Benzo(a)pyrene	412				
Benzo(b)fluoranthene	371				
Benzo(e)pyrene	294.0				
Benzo(g,h,i)perylene	310				
Benzo(k)fluoranthene	258				
Biphenyl	12.9				
Chrysene	289				
Dibenzo(a,h)anthracene	32.7				
Dibenzothiophene					
Fluoranthene	514				
Fluorene	25.3				
Indeno(1,2,3-cd)pyrene	382				

Table I-1
 Redwood City Harbor Navigation Improvement Integrated Feasibility Study and EIS/EIR

Sediment Chemistry

Analyte	SFEI Ambient				
	Sediment >40% Fines		SF-11	SFDODS	HWRP
Naphthalene	55.8				
Perylene	145.0				
Phenanthrene	237				
Pyrene	665				
Total LPAHs	434				
Total HPAHs	3060				
Total (Σ detected)PAHs	3,390				
Dioxins/Furans (ng/k					
2,3,7,8-Tetra CDD					
1,2,3,7,8-Penta CDD					
1,2,3,4,7,8-Hexa CDD					
1,2,3,6,7,8-Hexa CDD					
1,2,3,7,8,9-Hexa CDD					
1,2,3,4,6,7,8-Hepta CDD					
Total Octa CDD					
Total Tetra CDD					
Total Penta CDD					
Total Hexa CDD					
Total Hepta CDD					
2,3,7,8-Tetra CDF					
1,2,3,7,8-Penta CDF					
2,3,4,7,8-Penta CDF					
1,2,3,4,7,8-Hexa CDF					
1,2,3,6,7,8-Hexa CDF					
2,3,4,6,7,8-Hexa CDF					
1,2,3,7,8,9-Hexa CDF					
1,2,3,4,6,7,8-Hepta CDF					
1,2,3,4,7,8,9-Hepta CDF					
Octa CDF					
Total Tetra CDF					
Total Penta CDF					
Total Hexa CDF					
Total Hepta CDF					
Total TEQ					
Effects Range-Mediar					

Table I-2
Redwood City Harbor Navigation Improvement
Integrated Feasibility Report and EIS/EIR

Historical Toxicity Results

Benthic Toxicity Tests Performed	May-01									Jun-05							Feb-08					SF-11 Ref. Database
	1	2	3	4	5	6	7	Home	SF-11	1	2	3	4	5	Home	SF-11	1	2	3	SF-10	SF-11	
Amphipod (<i>Rhepoxynius abronius</i>) Survival (%)										100	100	96	96	92	100	100						93
Amphipod (<i>Ampelisca abdita</i>) Survival (%)	86	80	91	87	91	84	87	95	76	90	84	90	97	94	97	90	96	92	96	90	96	92
Polychaete (<i>Nephtys caecoides</i>) Survival (%)																	66	91	72	82	98	94
Polychaete (<i>Neanthes arenaceodenta</i>) Survival (%)	88	100	88	88	88	88	92	96	88													
A. abdita Survival (%)																						
N. arenaceodentata Survival (%)																						
	Feb-11									March-14												
	1	2	3	4	5	6	7	SF-10	Contro	1	2	3	4	5	6	7		SF-10				
Amphipod (<i>Rhepoxynius abronius</i>) Survival (%)																						
Amphipod (<i>Ampelisca abdita</i>) Survival (%)	94	92	94	89	78	95	89	87	97	95	98	96	87	93	95	92	96					
Polychaete (<i>Nephtys caecoides</i>) Survival (%)																						
Polychaete (<i>Neanthes arenaceodenta</i>) Survival (%)	100	98	100	100	100	100	94	100	100	100	100	98	100	100	100	100	100					

Water Column Toxicity Tests Performed	May-01	Jun-05	Feb-08	Feb-11							Mar-14							
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	SF-10
Bivalve larvae (<i>Mytilus edulis</i>) Survival & Development lowest LC50 or EC50 (%)	22		>100															
Mussel larvae (<i>Mytilus galloprovincialis</i>) Survival Lowest LC50 (%)				>100	>100	>100	>100	>100	86.0	88.2	35.2	35.4	35.2	70.7	66.3	35.5	66.6	>100
Mysid (<i>Americamysis bahia</i>) Survival lowest LC50 (%)		>100		>100	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100	>100
Menidia beryllina Survival lowest LC50 (%)				>100	>100	>100	99.1	>100	96.0	89.6	80.6	69.5	>100	70.4	89.3	>100	>100	>100

STFATE modeling (with barge disposal at SF-11) shows that toxicity thresholds were not exceeded for any of the water column bioassays.

Bioaccumulation Sediment Exposure Survival	Feb-11								14-Mar							
	Contro	1	2	3	4	5	6	7	1	2	3	4	5	6	7	SF-10
Macoma nasuta Survival (%)	100	93	100	97	100	100	97	93	92	91	93	91	99	95	98	97
Nephtys caecoides Survival (%)	99	83	83	79	81	72	82	84								
Nereis Virens Survival (%)									78	68	74	80	70	78	78	90

Table I-3
Redwood City Harbor Navigation Improvement Integrated Feasibility Report and EIS/EIR

MET Data

								Jun-05			
Metals (µg/l)	1	2	3	4	5	SF-11 reference					
Arsenic (total)	34.3	35	23.8	27.3	28.2						
Arsenic (dissolved)	33.7	32.5	17.3	23.4	29.1						
Cadmium (total)	<.01	<0.01	<0.01	<0.01	<0.01						
Cadmium (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01						
Chromium (total)	0.485	0.815	23.8	1.24	0.515						
Chromium (dissolved)	0.395	0.415	0.325	0.375	0.365						
Copper (total)	0.41	0.632	0.583	0.595	0.465						
Copper (dissolved)	0.461	0.603	0.651	0.683	0.447						
Lead (total)	0.315	0.401	0.369	0.479	0.297						
Lead (dissolved)	0.012	0.021	0.068	0.015	0.018						
Mercury (total)	0.00237	0.00377	0.00366	0.00483	0.00431						
Mercury (dissolved)	0.00231	0.00311	0.00294	0.00344	0.00328						
Nickel (total)	2.23	1.96	1.68	2.2	1.58						
Nickel (dissolved)	1.98	1.97	1.33	2.17	1.32						
Selenium (total)	0.252	0.059	0.198	<0.015	0.169						
Selenium (dissolved)	<0.015	<0.015	<0.015	0.038	0.167						
Zinc (total)	3.08	3.59	3.04	4.09	2.51						
Zinc (dissolved)	4.66	4.08	3.88	4.7	4.1						
								Feb-08			
Metals (µg/l)	1	2	3	SF-10	SF-11	Water Quality Objectives					
TSS (mg/L)	48.1	39.3	65.7	78.6	39.6						
Arsenic (total)	4.75	6.75	9.05	1.21	2.86						
Arsenic (dissolved)	4.85	6.77	8.13	2.47	2.6						
Cadmium (total)	0.018	0.018	0.019	0.007	0.106						
Cadmium (dissolved)	0.014	0.015	0.022	0.012	0.109						
Chromium (total)	0.92	1.01	1.22	0.4	1.35						
Chromium (dissolved)	0.08	0.09	0.16	0.13	0.18						
Copper (total)	0.94	1.17	1.42	0.7	3.62						
Copper (dissolved)	0.6	0.64	0.82	0.69	2.97						
Lead (total)	0.588	0.588	0.873	0.223	2.79						
Lead (dissolved)	0.122	0.064	0.193	0.096	0.157						
Mercury (total)	0.00683	0.0077	0.00778	0.0069	0.037						
Mercury (dissolved)	0.0015	0.00159	0.00128	0.00079	0.00109						
Nickel (total)	2.22	2.74	3.28	1.81	2.79						
Nickel (dissolved)	2.75	1.82	3.63	3.09	2.84						
Selenium (total)	0.38	0.38	0.42	0.07	0.25						
Selenium (dissolved)	0.33	0.36	0.38	0.17	0.19						
Silver (total)	0.005	0.005	0.011	0.005	0.014						
Silver (dissolved)	0.005	0.005	0.01	0.005	0.012						
Zinc (total)	2.26	2.4	2.4	1.47	3.79						
Zinc (dissolved)	0.53	0.74	0.61	1.3	1.54						
								Feb-11			
Metals (µg/l)	1	2	3	4	5	6	7	Water Quality Objectives			
TSS (mg/L)	<0.95	26	5	229	72	77	155				
Arsenic (total)	5.92	5.78	4.72	3.65	6.32	4.8	0.007				
Arsenic (dissolved)	6.41	5.58	3.87	3.28	5.82	4.53	3.4				
Cadmium (total)	0.013	0.017	0.014	0.01	0.02	0.014	<0.006				
Cadmium (dissolved)	0.016	0.017	0.012	0.012	0.016	0.016	0.013				
Chromium (total)	0.574	0.572	0.507	0.687	1.95	0.697	<0.040				
Chromium (dissolved)	0.153	0.254	0.153	0.198	0.282	0.273	0.332				
Copper (total)	0.848	1.05	1.05	0.78	2.22	2.04	0.066				
Copper (dissolved)	0.624	1.05	0.867	0.864	1.69	1.13	1.4				
Lead (total)	0.206	0.22	0.228	0.131	0.662	0.705	0.0135				
Lead (dissolved)	0.068	0.101	0.066	0.072	0.01	0.102	0.091				
Mercury (total)	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035				
Mercury (dissolved)	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035				
Nickel (total)	3.55	4.17	4.12	3.46	4.78	4.71	0.035				
Nickel (dissolved)	3.47	4.03	3.61	3.55	3.0	4.29	4.57				
Selenium (total)	0.246	0.218	0.252	0.221	0.329	0.261	<0.011				
Selenium (dissolved)	0.202	0.169	0.187	0.179	0.307	0.279	0.279				
Zinc (total)	3.92	3.71	3.44	4.61	6.42	4.92	0.335				
Zinc (dissolved)	1.83	2.47	1.65	2.75	5.46	5.09	5.09				

Table I-3
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and EIS/EIR

MET Data

Mar-14												
Metals (µg/l)	1	2	3	4	5	6	7	SF-10	Background Water	SF Basin Plan/CTR		MWRP Effluent Daily Max Limit
										Criteria Max. Conc. Salt	Criteria Contin. Conc. Salt	
TSS (mg/L)	4.8	3.8	3.3	8	6.5	5.7	6.9	4.9	24.0	NA	NA	NA
Arsenic (dissolved)	1.98	2.74	4.44	10.2	2.44	8.21	11.8	2.71	1.94	69	36	69
Cadmium (dissolved)	0.0459	0.0521	0.0495	0.0389	0.0588	0.0504	0.0535	0.0547	0.159J	42	9.3	3.9
Chromium (dissolved)	<0.164	<0.164	<0.164	<0.164	<0.164	<0.164	0.228J	<0.164	0.242J	1100	50	16
Copper (dissolved)	1.22	0.985	0.791	0.748	1.52	0.842	0.797	0.893	3.18	10.8	6.9	9.4
Lead (dissolved)	0.0192J	0.0194J	0.0205J	<0.0135	0.0199J	0.0201J	0.0328	0.0358	0.0349	210	8.1	65
Mercury (total)	0.00358	0.00404	0.00333	0.00432	0.00449	0.0054	0.00554	0.0039	0.01	2.1	0.025	2.1
Nickel (dissolved)	4.39	3.67	3.15	2.49	4.4	2.42	2.16	3.18	4.14	62.4	11.9	74
Selenium (total)	0.12	0.184	0.143	0.132	0.184	0.179	0.205	0.131	0.221J	20	5.0	20
Silver (dissolved)	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	<0.0082	1.9	NA	1.9
Zinc (dissolved)	2.42	2.9	3.05	1.85	2.95	3.84	5.53	3.94	3.08	90	81	90

Table I-4
Redwood City Harbor Navigation Improvement Integrated Feasibility Report and EIS/EIR

DI-WET Data

Metals (µg/l)	Mar-14							SF Basin Plan/CTR	
	1	2	3	4	5	6	7	Criteria Maximum Concentration	Criteria Continuous Concentration
	Hardness (mg/L)	110	110	140	140	140	150	130	NA
Arsenic	28	29	36	36	35	24	25	69	36
Cadmium	0.0147J	0.016J	0.0129J	0.0127J	0.0128J	0.00865J	0.0147J	42	9.3
Chromium	0.849	0.924	0.593	0.591	0.632	0.555	0.689	1100	50
Copper	1.68J	1.97J	1.81J	1.6J	1.37J	1.23J	1.49J	10.8	6.9
Lead	0.319	0.314	0.234	0.2	0.217	0.163	0.317	210	8.1
Mercury	0.00476	0.00439	0.00482	0.00489	0.00487	0.00353	0.00538	2.1	0.025
Nickel	1.6	2.33	2.09	1.81	1.8	1.3	1.47	62.4	11.9
Selenium	0.138	0.138	0.164	0.156	0.135	0.122	0.112	20	5.0
Silver	<0.00822	<0.00822	<0.00822	<0.00822	<0.00822	<0.00822	<0.00822	1.9	NA
Zinc	7.57J	11.8J	11.8J	3.79J	4.35J	4.9J	14.3J	90	81

Table I-5
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and EIS/EIR

Historic Results of Chemical and Physical Analyses of Redwood City Channel Sediment for Reuse at Hamilton

Jun-08								
Metals (mg/kg)	1	2	3	SF-10	SF-11	Screening Criteria		
Arsenic	8.00	8.91	9.8	10.2	5.01	15.3		
Barium	70.4	75	86.9	61.1	12.8	190		
Beryllium	0.695	0.658	0.889	0.559	0.132	1.03		
Boron	29.9	28.9	33.8	15.9	6.93	36.9		
Cadmium	0.255	0.469	0.621	0.256	0.118	0.7		
Chromium	97.6	94.9	122	81.3	24.8	112		
Cobalt	15.7	15.9	18.6	17.1	7.01	27.6		
Copper	38.1	38.5	52.1	36.8	2.51	68.1		
Lead	29.8	30.1	41.7	22.0	11.0	43.2		
Manganese	670	749	762	503	369	943		
Mercury	2.28	0.23	0.33	0.16	0.02	0.43		
Nickel	77.2	77.9	97.5	71.1	21.9	112		
Selenium	0.114	0.131	0.168	0.145	0.004	0.64		
Silver	0.54	0.46	0.97	<0.21	<0.12	0.58		
Vandaium	74.0	75.2	90.3	73.6	18.1	118		
Zinc	117	146	172	117	28	158		
Jun-08								
Organics (µg/kg)	1	2	3	SF-10	SF-11	Screening Criteria		
Total PAH	263	376	285	210	121	3,390		
Pentachlorophenol	<12.9	<14.0	<15.7	<12.6	<7.13	17		
Phenol	<18.9	<20.4	<23.0	<18.5	<10.4	130		
TPH diesel/ motor oil	<8.6	<9.3	<10.4	<8.4	<4.7	144,000		
TPH gasoline/JP-4	<8.6	<9.3	<10.4	<8.4	<4.7	12,000		
Total BHC	<1.12	<1.21	<1.36	<1.10	<0.62	0.99		
Total DDT	<1.16	<1.25	<1.41	<1.13	<0.64	7		
Total Chlordane	<5.12	<5.52	<6.21	<5.00	<2.82	1.1		
Dichlor prop	NT	NT	NT	NT	NT	140		
Dieldrin	<1.40	<1.51	<1.70	<1.37	<0.77	0.72		
Endrin aldehyde	<1.74	<1.88	<2.11	<1.70	<0.96	6.4		
Heptachlor	<1.81	<1.95	<2.19	<1.76	<1.00	0.3		
Heptachlor epoxide	<1.78	<1.93	<2.17	<1.74	<0.98	0.3		
MCPA	NT	NT	NT	NT	NT	7,900		
MCPP	NT	NT	NT	NT	NT	3,000		
Methoxychlor	<3.20	<3.46	<3.89	<3.13	<1.77	90		
Total PCB	<5.03	<5.43	<6.11	<4.92	<2.77	22.7		
2,3,7,8-TCDD	<0.00000085	<0.00000075	<0.00000072	<0.00000072	<0.00000071	0.02		
Jun-11								
Organics (µg/kg)	1	2	3	4	4	6	7	Hamilton Acceptance Criteria
Pentachlorophenol*	<3.35	<3.54	<3.57	<3.77	<3.89	<3.19	<3.10	17
Phenol*	<4.91	<5.18	<5.22	<5.52	<5.69	64.8	86.4	130
TPH diesel / motor oil	<11.0	<11.0	<11.0	<12.0	<12.0	<10.0	<9.9	144,000
TPH gasoline / JP-4	<11.0	<11.0	<11.0	<12.0	<12.0	<10.0	<9.9	12,000
Methoxychlor	<0.37	<0.39	<0.40	<0.42	<0.43	<0.35	<0.34	90
Dioxins (Total TEQ)	0.0037	0.0031	0.0037	0.0042	0.0061	0.0039	0.004	0.02
Barium	42.8	45.3	44.9	48.4	53.7	46.4	48.4	190
Beryllium	0.594	0.689	0.647	0.791	0.798	0.639	0.638	1.03
Boron	1.96	2.91	3.51	2.59	1.9	<1.33	<1.29	36.9
Cobalt	14.7	14.4	14.5	15.6	15.7	14.7	15.2	27.6
Manganese	720	842	751	728	498	761	835	943
Vanadium	55.2	59.4	59.1	63.9	63.7	57.6	59.8	118

Table I-6
Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	Mar-14 (Composite Area 7 Individual Sample Analysis)				
	7-1	7-2	7-3	7-4	7-1
Conventionals					
% Solids	35.1	41	37.7	35.5	38.6
PCB Congeners (microgram/kg, ppb dry wt)					
PCB008	<0.24	<0.21	<0.22	<0.24	<0.12
PCB018	<0.45	<0.39	<0.41	<0.44	<0.10
PCB028	<0.28	<0.24	<0.26	<0.28	<0.14
PCB031	<0.33	<0.28	<0.31	<0.32	<0.076
PCB033	<0.31	<0.27	<0.29	<0.3	<0.089
PCB044	<0.37	<0.32	<0.35	<0.37	<0.24
PCB049	<0.33	<0.29	<0.31	<0.33	<0.22
PCB052	<0.27	<0.24	<0.26	<0.27	<0.13
PCB056	<0.39	<0.34	<0.36	<0.39	<0.12
PCB060	<0.3	<0.26	<0.28	<0.3	<0.16
PCB066	<0.26	<0.22	<0.24	<0.26	0.32J
PCB070	<0.23	<0.2	<0.22	<0.23	0.38J
PCB074	<0.27	<0.23	<0.25	<0.26	0.19J
PCB087	<0.29	<0.25	<0.27	<0.28	<0.11
PCB095	<0.47	<.41	<0.44	<0.47	<0.13
PCB097	<0.39	<0.33	<0.36	<0.38	<0.11
PCB099	<0.24	0.94J	0.7J	1.3J	0.41J
PCB101	<0.23	1.5	1J	2.4	1.1
PCB105	<0.3	<0.26	<0.28	<0.29	0.50J
PCB110	1.3J	1.4	1J	1.7	0.77
PCB118	1.5	1.4	1.3	1.9	0.99
PCB128	<0.29	<0.25	<0.27	<0.29	<0.10
PCB132	<0.47	<0.41	<0.44	<0.46	2.1
PCB138/158	2.5J	2.3J	2J	2.8J	1.4
PCB141	<0.31	<0.27	<0.29	<0.31	<0.25
PCB149	1.7	1.5	1.6	2.2	1.0
PCB151	0.51J	0.51J	0.46J	0.67J	0.40J

Table I-6
Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	Mar-14 (Composite Area 7 Individual Sample Analysis)				
	7-1	7-2	7-3	7-4	7-1
PCB153	2.6	2.6	2.3	3.3	--
PCB156	<0.28	<0.24	<0.26	<0.27	<0.17
PCB170	1.2J	1.4	0.77J	1.2J	0.53
PCB174	0.96J	0.65J	0.76J	0.92J	0.32J
PCB177	0.56J	0.45J	<0.33	0.46J	0.34J
PCB180	1.9	1.6	1.8	1.7	0.93
PCB183	0.63J	0.47J	0.4J	0.5J	0.37J
PCB187	1.3J	1.2J	1.2J	1.3J	0.72
PCB194	<0.27	<0.23	<0.25	<0.27	<0.11
PCB195	<0.15	<0.13	<0.14	<0.15	<0.083
PCB201	<0.16	<0.14	<0.15	<0.16	0.13J
PCB203	<0.3	<0.26	<0.28	<0.3	<0.090
Total (Σ detected) PCB Congeners	16.7	17.9	15.3	22.4	12.9

Notes

Overlying samples collected from the mudline to -32 feet within labeled 7-(1-12).

Z-Layer samples collected from -32 to -32.5 feet within Compo 12)Z.

Comparison Levels

SFEI Ambient Sediment >40% Fines	14.8
2014 TMDL Limit	29.6
Montezuma Reuse Limits (Cover/Non-Cover)	22.7/180

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	7-1Z	7-2	7-2Z	7-3	7-3Z
Conventionals					
% Solids	40.8	38.2	42.6	42.8	40.8
PCB Congeners					
PCB008	<.12	0.29J	<0.12	0.95	0.84J
PCB018	<0.096	<0.10	<0.091	<0.10	<0.096
PCB028	<0.14	0.47J	1.3	1.3	2.1
PCB031	<0.072	0.38J	1.1	0.98	2.5
PCB033	<0.085	0.38J	1.3	1.4	3
PCB044	0.89	<0.24	1.5	1.6	3.2
PCB049	0.83	0.38J	1.2	1.4	3.4
PCB052	0.89	0.78	1.8	2.6	5.6
PCB056	<0.12	<0.12	<0.11	0.52	3.2
PCB060	<0.15	<0.16	<0.15	0.38J	0.6
PCB066	1.2	0.56	1.8	2.1	4.4
PCB070	0.93	0.55	1.2	2.0	4.8
PCB074	0.44J	0.22J	0.69	1.1	1.8
PCB087	<0.1	<0.11	<0.096	1.6	4.4
PCB095	1.6	0.73	2.1	3.7	9.4
PCB097	2.6	1.6	3.4	2.9	7.5
PCB099	1.5	0.80	2.80	3.2	6.6
PCB101	2.5	1.2	3.3	6.3	15
PCB105	1.2	<0.11	1.3	2.0	5.9
PCB110	2	1.2	3	5.1	14
PCB118	2.3	1.5	3.4	5.7	13
PCB128	0.69	<0.10	0.78	1.9	3.3
PCB132	6.1	3.6	7.1	9.6	22
PCB138/158	4.3	2.4	4.5	7.9	18
PCB141	0.73	<0.26	0.8	1.1	2.4
PCB149	3.1	1.6	3.5	5.2	11
PCB151	0.91	0.62	1.1	1.2	2.7

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	7-1Z	7-2	7-2Z	7-3	7-3Z
PCB153	--	--	--	--	--
PCB156	0.45J	<0.17	<0.16	0.73	2
PCB170	1.4	0.82	1.4	2.0	3.3
PCB174	1.3	0.69	1.2	1.3	2.8
PCB177	0.92	0.42J	0.81	1.1	2.1
PCB180	3	1.7	2.7	3.7	7
PCB183	0.8	0.48J	0.76	0.94	2
PCB187	2.1	1.2	2.3	2.7	4.8
PCB194	1	<0.11	1.1	1.1	2.3
PCB195	<0.079	<0.084	<0.075	<0.075	1.2
PCB201	0.22J	<0.12	0.25J	0.24J	0.37J
PCB203	0.92	<0.092	0.69	1.3	2.4
Total (Σ detected) PCB Congeners	46.8	24.6	61.0	88.2	201

Composite Area 7 are

Composite Area 7 are labeled 7-(1-

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	Oct-14 (Composi				
	7-4	7-4Z	7-5	7-5Z	7-6
Conventionals					
% Solids	37.7	41.5	39.4	39.7	38.7
PCB Congeners					
PCB008	<0.12	1.3	<0.12	<0.11	0.30J
PCB018	<0.10	<0.095	<0.099	<0.098	<0.10
PCB028	0.73	0.89	<0.14	2	0.61
PCB031	0.55	1.3	<0.074	1.7	<0.076
PCB033	<0.092	0.86	<0.087	2.5	<0.089
PCB044	0.36J	2	0.89	2.1	<0.24
PCB049	0.52J	1.4	0.72	2.3	0.51J
PCB052	0.91	2.5	1.7	2.7	0.61
PCB056	<0.13	<0.12	<0.12	<0.12	<0.12
PCB060	<0.17	<0.15	<0.16	<0.16	<0.16
PCB066	0.81	2	1.3	3.5	0.76
PCB070	0.89	0.18	1.1	2.4	0.60
PCB074	0.42J	0.99	0.56	1.3	<0.12
PCB087	<0.11	<0.099	<0.10	<0.1	<0.11
PCB095	0.98	3.4	2.0	4.9	1.1
PCB097	<0.11	6.4	2.2	4.1	<0.11
PCB099	1.0	3.8	2.0	5	1.1
PCB101	1.9	5.4	3.1	7.4	1.7
PCB105	1.0	1.8	1.8	2.8	<0.11
PCB110	1.9	4.8	3.0	5.8	1.4
PCB118	2.2	4.1	3.0	6.3	1.7
PCB128	0.067	<0.095	1.1	1.4	<0.10
PCB132	4.5	9.8	5.7	16	4.4
PCB138/158	3.3	6.3	3.8	9.1	3.1
PCB141	0.68	1.6	0.62	1.7	<0.25
PCB149	2.2	5.3	2.5	8.3	2.0
PCB151	0.86	1.7	0.82	2	0.65

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	Oct-14 (Composi				
	7-4	7-4Z	7-5	7-5Z	7-6
PCB153	--	--	--	--	--
PCB156	<0.18	0.74	<0.17	0.88	<0.17
PCB170	1.1	2.2	1.3	3.5	1.2
PCB174	0.87	1.5	0.95	2.4	0.89
PCB177	0.78	1.1	0.70	2.00	0.68
PCB180	2.1	3.3	2.2	6.1	2.3
PCB183	0.61	1.1	0.70	1.80	0.61
PCB187	1.5	3.1	1.7	5.1	1.5
PCB194	<0.11	1.2	<0.10	2.1	0.76
PCB195	<0.085	<0.078	<0.081	<0.08	<0.082
PCB201	<0.12	0.37J	<0.11	0.58	<0.11
PCB203	<0.092	1.4	<0.088	2.8	<0.089
Total (Σ detected) PCB Congeners	33.3	84.1	45.5	124	28.5

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	te Area 7 High Resolution Samples)				
	7-6Z	7-7	7-7Z	7-8	7-8Z
Conventionals					
% Solids	41.6	38.8	42.8	38.9	44
PCB Congeners					
PCB008	1.1	0.24J	1.6	0.64J	<0.11
PCB018	<0.094	<0.10	<0.091	<0.10	<0.089
PCB028	2.1	0.50J	<0.13	1.1	2.3
PCB031	1.6	0.34J	<0.068	0.67	2.1
PCB033	3.4	0.30J	<0.08	0.72	2.8
PCB044	2.8	0.63	1.3	1.2	3.3
PCB049	2.5	0.32J	1.7	0.92	3.2
PCB052	4.9	0.79	2.8	1.7	5.7
PCB056	<0.12	<0.12	<0.11	<0.12	<0.11
PCB060	<0.15	<0.16	<0.15	<0.16	<0.14
PCB066	3.6	0.48J	2.3	1.7	4.1
PCB070	2.40	0.62	2	1.5	3.9
PCB074	1.9	<0.12	<0.11	0.67	2.1
PCB087	<0.099	<0.11	<0.095	<0.10	<0.094
PCB095	7.4	0.75	4	2.6	7.9
PCB097	4.9	1.3	5.6	<0.11	6.2
PCB099	5.7	0.81	3.8	2.5	7.1
PCB101	11	1.2	5.9	5.1	14
PCB105	3.9	<0.11	1.9	2.3	5
PCB110	8.4	1.2	5.4	4.0	11.0
PCB118	9.2	1.3	5.2	4.1	12
PCB128	2.6	<0.10	1.6	1.2	2.8
PCB132	27	3.1	10	9.9	23
PCB138/158	17	2.2	7.2	7.1	17
PCB141	3.3	0.37J	1.1	1.3	2.5
PCB149	14.0	1.6	5.4	5.2	<0.11
PCB151	4.7	0.54	1.6	1.6	3.5

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	te Area 7 High Resolution Samples)				
	7-6Z	7-7	7-7Z	7-8	7-8Z
PCB153	--	--	--	--	--
PCB156	1.3	<0.17	1.1	0.75	2
PCB170	7.4	0.81	2.4	2.0	5.1
PCB174	5.3	0.58	1.6	1.7	3.7
PCB177	3.7	0.51J	1.1	1.3	2.4
PCB180	14	1.4	3.4	4.2	8.8
PCB183	3.3	0.49J	0.88	1.2	2.6
PCB187	10	1.3	2.6	3.2	6.5
PCB194	4.2	<0.11	1.1	1.2	3.5
PCB195	2.1	<0.083	<0.075	<0.082	2.1
PCB201	0.87	<0.11	0.32J	0.29J	0.53
PCB203	4.5	<0.090	1.3	1.3	3
Total (Σ detected) PCB Congeners	203	23.7	84.6	74.9	183

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	7-9	7-9Z	7-10	7-10Z	7-11
Conventionals					
% Solids	40.6	39.9	37.4	43.9	38.1
PCB Congeners					
PCB008	0.53J	1.7	0.43J	2.1	<0.12
PCB018	<0.097	<0.098	<0.10	<0.09	<0.10
PCB028	0.95	3.5	0.72	0.86	0.65
PCB031	0.63	3.4	0.48J	0.85	0.55
PCB033	1.0	4.6	<0.092	1.2	<0.091
PCB044	1.3	5.1	0.77	1.4	0.56
PCB049	1.1	5.7	0.57	1.4	0.43J
PCB052	1.5	9.5	0.86	1.8	0.89
PCB056	<0.12	<0.12	<0.13	<0.11	<0.13
PCB060	<0.16	<0.16	<0.17	<0.14	<0.16
PCB066	1.6	7.3	0.83	2.1	0.86
PCB070	1.2	6.9	0.81	1.3	0.74
PCB074	0.88	2.8	0.47J	0.6	0.40J
PCB087	<0.10	<0.1	<0.11	<0.094	<0.11
PCB095	2.2	14	1.5	2.8	0.92
PCB097	2.1	13	<0.11	3.4	<0.11
PCB099	2.2	12	1.4	3.1	1.1
PCB101	3.7	23	2	4.5	1.6
PCB105	<0.10	8.2	<0.11	1.3	<0.11
PCB110	3.0	18.0	2.0	4.0	1.4
PCB118	3.3	17	2.0	4.1	1.9
PCB128	0.86	5.6	0.74	0.93	0.50J
PCB132	7.4	44	4.8	7.8	3.9
PCB138/158	5.2	31	3.5	5	2.7
PCB141	0.8	5.7	0.47J	0.71	<0.26
PCB149	4.1	24	2.3	4.4	1.9
PCB151	1.1	6.6	0.72	1.1	0.56

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	7-9	7-9Z	7-10	7-10Z	7-11
PCB153	--	--	--	--	--
PCB156	0.66	3.3	0.42J	<0.15	<0.17
PCB170	1.9	9.9	1.3	1.9	1.1
PCB174	1.4	7.9	0.74	1.2	0.63
PCB177	0.96	4.8	0.67	0.96	0.52J
PCB180	3.3	19	2.1	2.9	1.8
PCB183	0.90	5.20	0.58	0.8	0.48
PCB187	2.5	15	1.5	2.5	1.3
PCB194	1.2	7.7	<0.11	1.1	<0.11
PCB195	<0.079	2.6	<0.085	<0.073	<0.084
PCB201	0.29J	1.4	<0.12	<0.1	0.26J
PCB203	1.1	6.3	<0.093	1.5	<0.091
Total (Σ detected) PCB Congeners	60.9	356	34.7	68.4	27.7

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	7-11Z	7-12	7-12Z
Conventionals			
% Solids	41	38.1	74.8
PCB Congeners			
PCB008	0.57J	<0.12	0.56J
PCB018	<0.095	<0.10	<0.052
PCB028	1.2	0.68	0.58
PCB031	0.9	<0.078	0.46
PCB033	0.83	<0.091	0.79
PCB044	1.5	1.2	0.83
PCB049	1.3	0.86	0.64
PCB052	1.9	1.7	1.6
PCB056	<0.12	<0.13	<0.064
PCB060	<0.15	<0.17	<0.083
PCB066	1.8	1.3	0.75
PCB070	1.7	1.6	0.86
PCB074	1	0.77	0.35
PCB087	<0.099	<0.11	0.85
PCB095	2.6	2.6	2
PCB097	2.9	<0.11	2.1
PCB099	3	2.3	1.3
PCB101	4.3	4.3	3.2
PCB105	1.8	1.8	1.4
PCB110	3.6	3.8	2.7
PCB118	4	3.6	2.4
PCB128	0.84	1.2	0.85
PCB132	8.7	7.5	4.6
PCB138/158	5.2	5.5	3.5
PCB141	0.97	1.0	0.64
PCB149	4.2	3.8	2.4
PCB151	1.5	1.2	0.71

Table I-6
 Redwood City Harbor Navigation Improvement Integrated Feasibility Report and
 EIS/EIR

High Resolution Sampling - Inner Turning Basin

Analyte	7-11Z	7-12	7-12Z
PCB153	--	--	--
PCB156	<0.16	0.70	0.38
PCB170	1.7	1.6	0.83
PCB174	1.2	1.3	0.7
PCB177	0.93	0.89	0.52
PCB180	3.6	3.2	1.5
PCB183	0.81	0.94	0.55
PCB187	2.5	2.2	1.2
PCB194	<0.1	1.0	0.69
PCB195	<0.078	<0.085	<0.043
PCB201	<0.11	<0.12	0.2J
PCB203	1.3	<0.092	0.63
Total (Σ detected) PCB Congeners	68.3	58.5	43.0