Table 1. Human Health Sediment PRGs for Direct Exposure to Sediment

Chemical	Exposure Route: / Receptor: / Target Risk Level	Units of PRGs	Beach Sediment (Direct Contact)							In-Water Sediment (Direct Contact)					
			Dockside Worker	Transient	Adult Recreational Beach User	Child Recreational Beach User	High Frequency Fisher	Low Frequency Fisher	Tribal Fisher	In-water Worker	Low Frequency Fisher	High Frequency Fisher	Tribal Fisher	Diver in Wet Suit	Diver in Dry Suit
Metals															
Arsenic	10^{-6} Risk	mg/kg dw			2.8E+00	9.5E-01	1.7E+00	2.5E+00	4.3E-01			1.5E+01	3.9E+00		
Arsenic	10^{-5} Risk	mg/kg dw			2.8E+01	9.5E+00	1.7E+01	2.5E+01	4.3E+00			1.5E+02	3.9E+01		
Arsenic	10^{-4} Risk	mg/kg dw			2.8E+02	9.5E+01	1.7E+02	2.5E+02	4.3E+01			1.5E+03	3.9E+02		
Arsenic	HQ = 1	mg/kg dw			5.4E+02	3.7E+01	3.2E+02	4.9E+02	1.9E+02			2.9E+03	1.7E+03		
PAHs															
Benzo(a)anthracene	10^{-6} Risk	mg/kg dw	6.9E+00								2.5E+01	1.6E+01	4.2E+00	2.6E+01	
Benzo(a)anthracene	10^{-5} Risk	mg/kg dw	6.9E+01								2.5E+02	1.6E+02	4.2E+01	2.6E+02	
Benzo(a)anthracene	10^{-4} Risk	mg/kg dw	6.9E+02								2.5E+03	1.6E+03	4.2E+02	2.6E+03	
Benzo(a)anthracene	HQ = 1	mg/kg dw													
Benzo(a)pyrene	10^{-6} Risk	mg/kg dw	6.9E-01			6.6E-02	1.6E-01		4.2E-02	8.6E+00	2.5E+00	1.6E+00	4.2E-01	2.6E+00	1.3E+01
Benzo(a)pyrene	10^{-5} Risk	mg/kg dw	6.9E+00			6.6E-01	1.6E+00		4.2E-01	8.6E+01	2.5E+01	1.6E+01	4.2E+00	2.6E+01	1.3E+02
Benzo(a)pyrene	10^{-4} Risk	mg/kg dw	6.9E+01			6.6E+00	1.6E+01		4.2E+00	8.6E+02	2.5E+02	1.6E+02	4.2E+01	2.6E+02	1.3E+03
Benzo(a)pyrene	HQ = 1	mg/kg dw													
Benzo(b)fluoranthene	10^{-6} Risk	mg/kg dw	6.9E+00								2.5E+01	1.6E+01	4.2E+00	2.6E+01	
Benzo(b)fluoranthene	10^{-5} Risk	mg/kg dw	6.9E+01								2.5E+02	1.6E+02	4.2E+01	2.6E+02	
Benzo(b)fluoranthene	10^{-4} Risk	mg/kg dw	6.9E+02								2.5E+03	1.6E+03	4.2E+02	2.6E+03	
Benzo(b)fluoranthene	HQ = 1	mg/kg dw													
Dibenzo(a,h)anthracene	10^{-6} Risk	mg/kg dw	6.9E-01								2.5E+00	1.6E+00	4.2E-01	2.6E+00	
Dibenzo(a,h)anthracene	10^{-5} Risk	mg/kg dw	6.9E+00								2.5E+01	1.6E+01	4.2E+00	2.6E+01	
Dibenzo(a,h)anthracene	10^{-4} Risk	mg/kg dw	6.9E+01								2.5E+02	1.6E+02	4.2E+01	2.6E+02	
Dibenzo(a,h)anthracene	HQ = 1	mg/kg dw													
Indeno(1,2,3-cd)pyrene	10^{-6} Risk	mg/kg dw	6.9E+00								2.5E+01	1.6E+01	4.2E+00	2.6E+01	
Indeno(1,2,3-cd)pyrene	10^{-5} Risk	mg/kg dw	6.9E+01								2.5E+02	1.6E+02	4.2E+01	2.6E+02	
Indeno(1,2,3-cd)pyrene	10^{-4} Risk	mg/kg dw	6.9E+02								2.5E+03	1.6E+03	4.2E+02	2.6E+03	
Indeno(1,2,3-cd)pyrene	HQ = 1	mg/kg dw													
Total cPAH	10^{-6} Risk	mg/kg dw	6.9E-01		2.7E-01	6.6E-02	1.6E-01	2.4E-01	4.2E-02	8.6E+00	2.5E+00	1.6E+00	4.2E-01	2.6E+00	1.3E+01
Total cPAH	10^{-5} Risk	mg/kg dw	6.9E+00		2.7E+00	6.6E-01	1.6E+00	2.4E+00	4.2E-01	8.6E+01	2.5E+01	1.6E+01	4.2E+00	2.6E+01	1.3E+02
Total cPAH	10^{-4} Risk	mg/kg dw	6.9E+01		2.7E+01	6.6E+00	1.6E+01	2.4E+01	4.2E+00	8.6E+02	2.5E+02	1.6E+02	4.2E+01	2.6E+02	1.3E+03
Total cPAH	HQ = 1	mg/kg dw													
PCBs															
Total PCBs	10^{-6} Risk	mg/kg dw									8.6E+00	5.7E+00	1.5E+00	8.8E+00	
Total PCBs	10^{-5} Risk	mg/kg dw									8.6E+01	5.7E+01	1.5E+01	8.8E+01	
Total PCBs	10^{-4} Risk	mg/kg dw									8.6E+02	5.7E+02	1.5E+02	8.8E+02	
Total PCBs	HQ = 1	mg/kg dw									1.5E+02	9.8E+01	5.9E+01	1.3E+02	
Total PCB TEQ	10^{-6} Risk	mg/kg dw										8.8E-05	2.3E-05		
Total PCB TEQ	10^{-5} Risk	mg/kg dw										8.8E-04	2.3E-04		
Total PCB TEQ	10^{-4} Risk	mg/kg dw										8.8E-03	2.3E-03		
Total PCB TEQ	HQ = 1	mg/kg dw										4.9E-03	3.0E-03		
Dioxin/Furans															
Total Dioxin TEQ	10^{-6} Risk	mg/kg dw								6.3E-04	2.6E-04	1.7E-04	4.5E-05	5.2E-04	1.5E-03
Total Dioxin TEQ	10^{-5} Risk	mg/kg dw								6.3E-03	2.6E-03	1.7E-03	4.5E-04	5.2E-03	1.5E-02
Total Dioxin TEQ	10^{-4} Risk	mg/kg dw								6.3E-02	2.6E-02	1.7E-02	4.5E-03	5.2E-02	1.5E-01
Total Dioxin TEQ	HQ = 1	mg/kg dw								1.2E-02	1.4E-02	9.7E-03	5.8E-03	2.4E-02	7.0E-02

Notes:
COC = chemical of concern
HQ = hazard quotient
PRG = preliminary remediation goal
mg/kg dw = milligrams per kilogram on a dry weight basis

PRG not developed because analyte is not evaluated for the non-cancer endpoint.
PRG not developed because analyte is not a chemical of concern for this scenario.

Table 2. Human Health Sediment PRGs for Fish and Shellfish Consumption[a]

Chemical	Exposure Route:		Fish Consumption																Shellfish Consumption			
	Receptor:		Adult Fish Consumption, Single Species Diet - Large Home-Range Resident Fish				Adult Fish Consumption, Single Species Diet - Smallmouth Bass		Child Fish Consumption, Single Species Diet - Large Home-Range Resident Fish				Child Fish Consumption, Single Species Diet - Smallmouth Bass		Tribal Adult Fish Consumption, Multi-species Diet[b]		Tribal Child Fish Consumption, Multi-species Diet[c]		Adult Shellfish Consumption - Clam		Adult Shellfish Consumption - Crayfish	
	Ingestion Rate (g/day):		17.5		142		17.5	142	7		60		7	60	86.8[c]		36.2[c]		3.3	18	3.3	18
Chemical	Target Risk Level	Units of PRGs	Low Bioaccum	High Bioaccum	Low Bioaccum	High Bioaccum			Low Bioaccum	High Bioaccum	Low Bioaccum	High Bioaccum			Low Bioaccum	High Bioaccum	Low Bioaccum	High Bioaccum				
Metals																						
Antimony	10^{-6} Risk	mg/kg dw																				
Antimony	10^{-5} Risk	mg/kg dw																				
Antimony	10^{-4} Risk	mg/kg dw																				
Antimony[d]	HQ = 1	mg/kg dw					NC	NC					NC	NC	NC	NC	NC	NC				
Arsenic	10^{-6} Risk	mg/kg dw	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Arsenic	10^{-5} Risk	mg/kg dw	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Arsenic	10^{-4} Risk	mg/kg dw	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Arsenic	HQ = 1	mg/kg dw	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Lead[d]	5% prob - 10 ug/dl	mg/kg dw	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
Mercury	10^{-6} Risk	mg/kg dw																				
Mercury	10^{-5} Risk	mg/kg dw																				
Mercury	10^{-4} Risk	mg/kg dw																				
Mercury	HQ = 1	mg/kg dw	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
Selenium	10^{-6} Risk	mg/kg dw																				
Selenium	10^{-5} Risk	mg/kg dw																				
Selenium	10^{-4} Risk	mg/kg dw																				
Selenium	HQ = 1	mg/kg dw					NC	NC					NC	NC								
Zinc	10^{-6} Risk	mg/kg dw																				
Zinc	10^{-5} Risk	mg/kg dw																				
Zinc	10^{-4} Risk	mg/kg dw																				
Zinc	HQ = 1	mg/kg dw							NC	NC	NC	NC										
PAHs[e, f]																						
Benzo(a)anthracene	10^{-6} Risk	mg/kg-OC					NC	NC											1.4E+01	8.1E-01	NC	NC
Benzo(a)anthracene	10^{-5} Risk	mg/kg-OC					NC	NC											7.3E+02	4.1E+01	NC	NC
Benzo(a)anthracene	10^{-4} Risk	mg/kg-OC					NC	NC											3.7E+04	2.0E+03	NC	NC
Benzo(a)anthracene	HQ = 1	mg/kg-OC																				
Benzo(a)pyrene	10^{-6} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC					NC	NC	NC	NC			2.2E+00	1.3E-01	2.2E+02	4.0E+01
Benzo(a)pyrene[g]	10^{-5} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC					NC	NC	NC	NC			1.0E+02	5.9E+00	2.3E+03	4.1E+02
Benzo(a)pyrene[g]	10^{-4} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC					NC	NC	NC	NC			4.7E+03	2.8E+02	2.4E+04	4.3E+03
Benzo(a)pyrene	HQ = 1	mg/kg-OC																				
Benzo(b)fluoranthene	10^{-6} Risk	mg/kg-OC																	NC	NC	NC	NC
Benzo(b)fluoranthene	10^{-5} Risk	mg/kg-OC																	NC	NC	NC	NC
Benzo(b)fluoranthene	10^{-4} Risk	mg/kg-OC																	NC	NC	NC	NC
Benzo(b)fluoranthene	HQ = 1	mg/kg-OC																				
Benzo(k)fluoranthene[h]	10^{-6} Risk	mg/kg-OC																	1.6E+03	1.5E+02	NC	NC
Benzo(k)fluoranthene[h]	10^{-5} Risk	mg/kg-OC																	4.2E+04	3.8E+03	NC	NC
Benzo(k)fluoranthene[h]	10^{-4} Risk	mg/kg-OC																	1.1E+06	1.0E+05	NC	NC
Benzo(k)fluoranthene	HQ = 1	mg/kg-OC																				
Dibenzo(a,h)anthracene	10^{-6} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC											NC	NC	NC	NC
Dibenzo(a,h)anthracene	10^{-5} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC											NC	NC	NC	NC
Dibenzo(a,h)anthracene	10^{-4} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC											NC	NC	NC	NC
Dibenzo(a,h)anthracene	HQ = 1	mg/kg-OC																				
Indeno(1,2,3-cd)pyrene	10^{-6} Risk	mg/kg-OC																	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	10^{-5} Risk	mg/kg-OC																	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	10^{-4} Risk	mg/kg-OC																	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	HQ = 1	mg/kg-OC																				
Phalates and SVOCs																						
Bis(2-ethylhexyl)phthalate	10^{-6} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
Bis(2-ethylhexyl)phthalate	10^{-5} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
Bis(2-ethylhexyl)phthalate	10^{-4} Risk	mg/kg-OC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
Bis(2-ethylhexyl)phthalate	HQ = 1	mg/kg-OC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC				
Hexachlorobenzene	10^{-6} Risk	mg/kg-OC	3.7E-01	1.2E-01	4.6E-02	1.5E-02	NC	NC	1.0E+00	3.2E-01	1.2E-01	3.8E-02	NC	NC	3.2E-02	1.0E-02	1.9E-01	6.2E-02				
Hexachlorobenzene	10^{-5} Risk	mg/kg-OC	3.7E+00	1.2E+00	4.6E-01	1.5E-01	NC	NC	1.0E+01	3.2E+00	1.2E+00	3.8E-01	NC	NC	3.2E-01	1.0E-01	1.9E+00	6.2E-01				
Hexachlorobenzene	10^{-4} Risk	mg/kg-OC	3.7E+01	1.2E+01	4.6E+00	1.5E+00	NC	NC	1.0E+02	3.2E+01	1.2E+01	3.8E+00	NC	NC	3.2E+00	1.0E+00	1.9E+01	6.2E+00				
Hexachlorobenzene	HQ = 1	mg/kg-OC	2.0E+02	6.6E+01	2.5E+01	8.1E+00	NC	NC	1.1E+02	3.5E+01	1.3E+01	4.1E+00	NC	NC	4.1E+01	1.3E+01	2.1E+01	6.8E+00				
Pentachlorophenol	10^{-6} Risk	mg/kg-OC																			NC	NC
Pentachlorophenol	10^{-5} Risk	mg/kg-OC																			NC	NC
Pentachlorophenol	10^{-4} Risk	mg/kg-OC																			NC	NC
Pentachlorophenol	HQ = 1	mg/kg-OC																			NC	NC
PCBs																						
PCB-126[i]	10^{-6} Risk	mg/kg dw	<0	<0	<0	<0	<0	<0	6.0E-07	2.4E-07	<0	<0	<0	<0	<0	<0	<0	<0	3.4E-06	<0	1.2E-06	<0
PCB-126[i]	10^{-5} Risk	mg/kg dw	3.3E-06	3.1E-06	<0	<0	4.1E-07	<0	1.0E-05	7.5E-06	7.8E-07	4.2E-07	2.6E-06	<0	<0	<0	2.5E-07	2.5E-07	4.5E-05	7.2E-06	1.9E-05	2.9E-06
PCB-126[i]	10^{-4} Risk	mg/kg dw	4.2E-05	2.2E-05	4.3E-06	3.8E-06	1.2E-05	7.0E-07	1.2E-04	4.9E-05	1.2E-05	8.6E-06	3.6E-05	3.2E-06	1.0E-06	1.0E-06	1.1E-05	1.1E-05	4.8E-04	8.5E-05	1.8E-04	3.4E-05
PCB-126[i]	HQ = 1	mg/kg dw	2.3E-05	1.4E-05	2.1E-06	2.0E-06	6.4E-06	1.7E-08	1.2E-05	8.3E-06	9.1E-07	5.7E-07	3.0E-06	<0	1.6E-06	1.6E-06	3.8E-07	3.8E-07	2.6E-04	4.6E-05	1.0E-04	1.9E-05
Total PCBs	10^{-6} Risk	mg/kg dw	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	<0	4.4E-02	3.0E-03	2.2E-02	<0
Total PCBs	10^{-5} Risk	mg/kg dw	9.2E-03	1.3E-03	<0	<0	<0	<0	3.2E-02	1.2E-02	<0	<0	4.4E-03	<0	<0	<0	<0	<0	4.9E-01	8.6E-02	2.8E-01	4.6E-02
Total PCBs	10^{-4} Risk	mg/kg dw	1.3E-01	6.0E-02	1.2E-02	2.8E-03	3.0E-02	<0	3.7E-01	1.7E-01	3.9E-02	1.5E-02	8.7E-02	5.9E-03	3.8E-04	3.8E-04	2.7E-02	2.7E-02	5.0E+00	9.1E-01	2.8E+00	5.1E-01
Total PCBs	HQ = 1	mg/kg dw	1.9E-02	6.0E-03	<0	<0	1.1E-03	<0	8.0E-03	8.0E-04	<0	<0	<0	<0	<0	<0	<0	<0	8.5E-01	1.5E-01	4.8E-01	8.3E-02
Dioxin/Furans																						
2,3,4,7,8 PCDF[j]	10^{-6} Risk	mg/kg dw	<0	<0	<0	<0	<0	<0	6.5E-09	<0	<0	<0	1.1E-07	<0	<0	<0	<0	<0	2.4E-06	1.3E-07	2.0E-06	8.0E-08

Chemical	Exposure Route:		Fish Consumption																Shellfish Consumption			
	Receptor:		Adult Fish Consumption, Single Species Diet - Large Home-Range Resident Fish				Adult Fish Consumption, Single Species Diet - Smallmouth Bass		Child Fish Consumption, Single Species Diet - Large Home-Range Resident Fish				Child Fish Consumption, Single Species Diet - Smallmouth Bass		Tribal Adult Fish Consumption, Multi-species Diet[b]		Tribal Child Fish Consumption, Multi-species Diet[c]		Adult Shellfish Consumption - Clam		Adult Shellfish Consumption - Crayfish	
	Ingestion Rate (g/day):		17.5		142		17.5	142	7		60		7	60	86.8[c]		36.2[c]		3.3	18	3.3	18
Chemical	Target Risk Level	Units of PRGs	Low Bioaccum	High Bioaccum	Low Bioaccum	High Bioaccum			Low Bioaccum	High Bioaccum	Low Bioaccum	High Bioaccum			Low Bioaccum	High Bioaccum	Low Bioaccum	High Bioaccum				
2,3,4,7,8 PCDF[j]	10^{-5} Risk	mg/kg dw	5.4E-07	2.5E-07	<0	<0	1.1E-06	<0	2.4E-06	2.2E-06	3.3E-08	<0	3.9E-06	1.5E-07	<0	<0	4.0E-07	4.0E-07	4.8E-05	5.4E-06	3.7E-05	4.5E-06
2,3,4,7,8 PCDF[j]	10^{-4} Risk	mg/kg dw	2.8E-05	1.2E-05	7.4E-07	4.5E-07	2.0E-05	1.4E-06	1.7E-04	4.2E-05	3.2E-06	2.6E-06	7.0E-05	4.8E-06	8.8E-07	8.8E-07	9.2E-06	9.2E-06	9.1E-04	1.1E-04	6.2E-04	7.8E-05
2,3,4,7,8 PCDF[j]	HQ = 1	mg/kg dw	9.5E-06	5.6E-06	2.9E-07	4.9E-08	9.9E-06	6.2E-07	2.9E-06	2.5E-06	5.5E-08	<0	4.5E-06	1.9E-07	1.3E-06	1.3E-06	4.8E-07	4.8E-07	4.3E-04	5.0E-05	3.0E-04	3.8E-05
Pesticides																						
Aldrin	10^{-6} Risk	mg/kg dw	6.9E-03	1.4E-03	8.4E-04	1.7E-04													1.2E-02	2.3E-03	3.5E-02	6.5E-03
Aldrin	10^{-5} Risk	mg/kg dw	7.0E-02	1.4E-02	8.6E-03	1.8E-03													1.2E-01	2.3E-02	3.5E-01	6.5E-02
Aldrin	10^{-4} Risk	mg/kg dw	7.0E-01	1.4E-01	8.6E-02	1.8E-02													1.2E+00	2.3E-01	3.5E+00	6.5E-01
Aldrin	HQ = 1	mg/kg dw	1.5E+00	3.1E-01	1.9E-01	3.8E-02													2.7E+00	5.0E-01	7.7E+00	1.4E+00
Dieldrin	10^{-6} Risk	mg/kg dw	<0	<0	<0	<0	<0	<0	9.3E-04	<0	<0	<0	<0	<0	<0	<0	<0	<0	1.0E-02	7.7E-04	1.6E-02	1.4E-03
Dieldrin	10^{-5} Risk	mg/kg dw	7.2E-03	2.5E-03	<0	<0	3.5E-03	<0	2.2E-02	1.0E-02	1.3E-03	<0	1.3E-02	<0	<0	<0	1.1E-03	1.1E-03	1.1E-01	1.9E-02	1.8E-01	3.1E-02
Dieldrin	10^{-4} Risk	mg/kg dw	8.4E-02	4.3E-02	9.2E-03	3.6E-03	5.2E-02	4.8E-03	2.3E-01	1.2E-01	2.5E-02	1.2E-02	1.4E-01	1.5E-02	3.1E-03	3.1E-03	2.8E-02	2.8E-02	1.1E+00	2.0E-01	1.8E+00	3.3E-01
Dieldrin	HQ = 1	mg/kg dw	2.9E-01	1.5E-01	3.5E-02	1.7E-02	1.8E-01	2.1E-02	1.6E-01	8.1E-02	1.7E-02	7.7E-03	9.7E-02	9.7E-03	3.8E-02	3.8E-02	1.8E-02	1.8E-02	3.9E+00	7.1E-01	6.2E+00	1.1E+00
Heptachlor Epoxide	10^{-6} Risk	mg/kg dw	3.0E-03	2.2E-03	2.4E-04	1.5E-04																
Heptachlor Epoxide	10^{-5} Risk	mg/kg dw	3.1E-02	2.3E-02	3.7E-03	2.7E-03																
Heptachlor Epoxide	10^{-4} Risk	mg/kg dw	3.1E-01	2.3E-01	3.8E-02	2.8E-02																
Heptachlor Epoxide	HQ = 1	mg/kg dw	1.6E-01	1.2E-01	1.9E-02	1.4E-02																
Total Chlordane	10^{-6} Risk	mg/kg dw	2.1E-02	8.5E-03	1.9E-03	1.5E-04	7.4E-03	5.6E-05	5.9E-02	2.4E-02	6.1E-03	1.9E-03	2.1E-02	1.6E-03	<0	<0	4.9E-03	4.9E-03				
Total Chlordane	10^{-5} Risk	mg/kg dw	2.2E-01	9.4E-02	2.7E-02	1.1E-02	8.3E-02	9.3E-03	5.9E-01	2.5E-01	6.9E-02	2.9E-02	2.2E-01	2.5E-02	8.8E-03	8.8E-03	5.8E-02	5.8E-02				
Total Chlordane	10^{-4} Risk	mg/kg dw	2.2E+00	9.5E-01	2.7E-01	1.2E-01	8.3E-01	1.0E-01	5.9E+00	2.5E+00	6.9E-01	3.0E-01	2.2E+00	2.6E-01	9.7E-02	9.7E-02	5.8E-01	5.8E-01				
Total Chlordane	HQ = 1	mg/kg dw	1.7E+00	7.1E-01	2.0E-01	8.7E-02	6.3E-01	7.6E-02	8.9E-01	3.8E-01	1.0E-01	4.4E-02	3.3E-01	3.8E-02	1.7E-01	1.7E-01	8.7E-02	8.7E-02				
Sum DDD	10^{-6} Risk	mg/kg dw	2.6E-02	1.0E-02	2.4E-03	3.9E-04	8.1E-03	1.6E-04	7.1E-02	2.9E-02	7.5E-03	2.5E-03	2.3E-02	1.9E-03	1.6E-04	1.6E-04	5.8E-03	5.8E-03	5.8E-01	1.1E-01	5.4E-01	9.7E-02
Sum DDD	10^{-5} Risk	mg/kg dw	2.7E-01	1.1E-01	3.2E-02	1.3E-02	8.9E-02	1.0E-02	7.2E-01	3.0E-01	8.3E-02	3.5E-02	2.4E-01	2.7E-02	1.0E-02	1.0E-02	6.7E-02	6.7E-02	5.8E+00	1.1E+00	5.4E+00	9.8E-01
Sum DDD	10^{-4} Risk	mg/kg dw	2.7E+00	1.1E+00	3.3E-01	1.4E-01	9.0E-01	1.1E-01	7.2E+00	3.0E+00	8.4E-01	3.5E-01	2.4E+00	2.8E-01	1.1E-01	1.1E-01	6.8E-01	6.8E-01	5.8E+01	1.1E+01	5.4E+01	9.8E+00
Sum DDD	HQ = 1	mg/kg dw	1.4E+00	5.8E-01	1.7E-01	7.1E-02	4.6E-01	5.6E-02	7.4E-01	3.1E-01	8.5E-02	3.6E-02	2.5E-01	2.8E-02	1.3E-01	1.3E-01	6.9E-02	6.9E-02	3.0E+01	5.5E+00	2.8E+01	5.1E+00
Sum DDE	10^{-6} Risk	mg/kg dw	3.0E-03	7.4E-04	<0	<0	<0	<0	1.1E-02	5.0E-03	<0	<0	1.1E-03	<0	<0	<0	<0	<0	2.2E-01	3.9E-02	9.4E-02	1.6E-02
Sum DDE	10^{-5} Risk	mg/kg dw	4.5E-02	2.3E-02	4.1E-03	1.3E-03	8.8E-03	<0	1.2E-01	6.6E-02	1.3E-02	6.1E-03	2.6E-02	1.6E-03	8.2E-05	8.2E-05	9.1E-03	9.1E-03	2.2E+00	4.1E-01	9.6E-01	1.7E-01
Sum DDE	10^{-4} Risk	mg/kg dw	4.7E-01	2.5E-01	5.6E-02	2.9E-02	1.0E-01	1.1E-02	1.2E+00	6.7E-01	1.4E-01	7.7E-02	2.8E-01	3.1E-02	1.6E-02	1.6E-02	1.1E-01	1.1E-01	2.3E+01	4.1E+00	9.6E+00	1.8E+00
Sum DDE	HQ = 1	mg/kg dw	3.4E-01	1.8E-01	4.0E-02	2.1E-02	7.4E-02	7.7E-03	1.8E-01	9.6E-02	2.0E-02	9.7E-03	3.9E-02	3.1E-03	2.9E-02	2.9E-02	1.4E-02	1.4E-02	1.6E+01	3.0E+00	7.0E+00	1.3E+00
Sum DDT	10^{-6} Risk	mg/kg dw	3.0E-02	1.8E-02	2.4E-03	1.1E-03	1.1E-02	1.1E-04	8.2E-02	5.0E-02	8.2E-03	4.7E-03	3.1E-02	2.4E-03	3.0E-04	3.0E-04	8.8E-03	8.8E-03	3.3E-01	5.9E-02	2.2E-01	3.9E-02
Sum DDT	10^{-5} Risk	mg/kg dw	3.1E-01	1.9E-01	3.7E-02	2.2E-02	1.2E-01	1.4E-02	8.3E-01	5.2E-01	9.6E-02	5.9E-02	3.3E-01	3.7E-02	1.6E-02	1.6E-02	1.0E-01	1.0E-01	3.3E+00	6.1E-01	2.2E+00	4.0E-01
Sum DDT	10^{-4} Risk	mg/kg dw	3.1E+00	1.9E+00	3.8E-01	2.4E-01	1.2E+00	1.5E-01	8.3E+00	5.2E+00	9.7E-01	6.0E-01	3.3E+00	3.8E-01	1.7E-01	1.7E-01	1.0E+00	1.0E+00	3.3E+01	6.1E+00	2.2E+01	4.0E+00
Sum DDT	HQ = 1	mg/kg dw	2.3E+00	1.4E+00	2.8E-01	1.7E-01	8.9E-01	1.1E-01	1.2E+00	7.5E-01	1.4E-01	8.7E-02	4.7E-01	5.4E-02	2.9E-01	2.9E-01	1.5E-01	1.5E-01	2.4E+01	4.4E+00	1.6E+01	2.9E+00

Notes:
BSAF = biota-sediment accumulation factor
BSAR = biota-sediment accumulation regression
COC = chemical of concern
HQ = hazard quotient
PRG = preliminary remediation goal
mg/kg dw = milligrams per kilogram on a dry weight basis
mg/kg-OC = milligrams per kilogram on an organic carbon normalized basis

a For chemicals evaluated using the food web model, the water concentration input to the food web model is assumed to be equal to the background surface water concentration. OC-normalized PRGs were developed for organic COCs where BSAFs/BSARs were used in deriving the sediment-tissue relationship.
b For multispecies diet PRGs based on BSAR/Fs (see Table 1 of Appendix A), the range of PRGs is inclusive only of those fish for which BSAR/Fs could be developed. For multispecies diet PRGs based on the FWM, a single PRG was developed through the FWM based on the assumption that each of the resident species for human consumption (i.e., black crappie, brown bullhead, carp, and smallmouth bass) represents one quarter of the diet.
c The ingestion rates used to develop PRGs for the Tribal multi-species fish consumption scenarios are based on the dietary fraction of fish that consists of resident fish species.
d Antimony and lead were identified as COCs based on detections in smallmouth bass. Because a sediment-tissue relationship could not be developed for smallmouth bass, PRGs were not calculated for other fish species.
e PRGs were not developed for PAHs in fish due to weak sediment-tissue relationships. PAHs contribute less than 1 percent of the cumulative cancer risk from fish consumption.
f PRGs were developed for individual cPAHs instead of total cPAH for shellfish consumption due to differences in bioaccumulation for individual cPAHs.
g PRGs for clam 10-4 risk for 3.3. g/day and 18 g/day ingestion rates and for crayfish 10-5 and 10-4 risk for 3.3. g/day and 18 g/day ingestion rates were extrapolated outside the range of data.
h PRGs for all risk levels and ingestion rates were extrapolated outside the range of data.
i PRG developed for PCB congener 126 as surrogate for PCB TEQ for fish and shellfish consumption.
j PRG developed for 2,3,4,7,8 PCDF as surrogate for dioxin/furan TEQ for fish and shellfish consumption.

PRG not developed because analyte is not evaluated for the cancer endpoint.
PRG not developed because analyte is not evaluated for the non-cancer endpoint.
PRG not developed because analyte is not a chemical of concern for this scenario.

NC Analyte is a chemical of concern for this scenario, but a PRG was not calculated because a sediment-tissue relationship could not be established. See Appendix A for additional details.

Table 4. Ecological Sediment PRGs for Tissue and Dietary Dose Lines of Evidence

Chemical	Units of PRGs	Tissue Residue Assessment		Wildlife						
				Bird Dietary Assessment					Mammals Dietary Assessment	
		Benthic		Piscivore		Omnivore	Sediment probing invertivore		Aquatic-Dependent Carnivore	
	Receptor →			Osprey	Bald Eagle [a]	Hooded Merganser	Spotted Sandpiper [b]		Mink	River Otter
	Receptor Diet → (if applicable)	Clams	Worms	brown bullhead, carp, largescale sucker, northern pikeminnow, smallmouth bass	carp, largescale sucker, northern pikeminnow, peamouth	clams, peamouth, sculpin, worms	clams	worms	crayfish, sculpin, smallmouth bass, carp	carp, crayfish, sculpin, smallmouth bass, clams
				multi spp	multi spp	multi spp			multi spp	multi spp
PCB-126 [c]	mg/kg dw								0.000045 *	0.000084 *
Total PCBs	mg/kg dw	2.42	1.47	0.423 **	0.73 **	0.618 **	0.996	0.606	0.031 *	0.068 **
2,3,4,7,8 PCDF (mammals) [d]	mg/kg dw								0.000056 *	

Note:

[a] For total PCBs, the PRG based on the LOAEL value for bald eagle is presented.

[b] PRGs are presented separately for clams and worms because the sandpiper diet was assessed separately in the BERA.

[c] PCB-126 is the surrogate for PCB TEQ - mammals.

[d] 2,3,4,7,8-PCDF is the surrogate for Dioxin TEQ - mammals.

PRG not developed because analyte is not a chemical of concern for this scenario.

Refinements to PRG values

* Early PRG refinement - multispecies diet used in BERA (not all prey items included in original PRG calculations).

** Early PRG refinement - multispecies diet used in BERA.