

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.0E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	2.7E-09	3.5E-09	mg/kg-day	1.3E-05	mg/kg-day	2.7E-04	
				Arsenic	5E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	4.1E-03	
				Cadmium	3E+00	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	6.6E-08	mg/kg-day	2.5E-05	mg/kg-day	2.7E-03	
				Chromium VI	6E+01	ug/L	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	7.5E-05	mg/kg-day	4.2E-02	
				Lead													
				Manganese	6E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.8E-03	mg/kg-day	5.5E-03	
				Mercury	6E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.1E-05	mg/kg-day	7.7E-04	
			Exp. Route Total								2E-07					6E-02	
			Exposure Point Total								2E-07					6E-02	
			Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.0E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	2.7E-09	3.5E-09	mg/kg-day	1.3E-05	mg/kg-day	2.7E-04
		Arsenic			5E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-07	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	4.1E-03	
		Cadmium			3E+00	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	6.6E-08	mg/kg-day	2.5E-05	mg/kg-day	2.7E-03	
		Chromium VI			6E+01	ug/L	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	7.5E-05	mg/kg-day	4.2E-02	
		Lead															
		Manganese			6E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.8E-03	mg/kg-day	5.5E-03	
		Mercury			6E-01	ug/L	1.4E-09	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.1E-05	mg/kg-day	7.7E-04	
			Exp. Route Total								2E-07					6E-02	
			Exposure Point Total								2E-07					6E-02	
			Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
		Arsenic			5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
		Cadmium			3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
Chromium VI	6E+01	ug/L			4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02			
Lead																	
Manganese	6E+02	ug/L			2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03			
Mercury	6E-01	ug/L			2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03			
	Exp. Route Total								2E-07					8E-02			
	Exposure Point Total								2E-07					8E-02			

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water (cont.)	Surface Water (cont.)	Station 13/TT-27 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04	
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02	
				Lead													
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03	
			Exp. Route Total								2E-07					8E-02	
			Exposure Point Total								2E-07					8E-02	
			Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
		Arsenic			5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
		Cadmium			3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
		Chromium VI			6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02	
		Lead															
		Manganese			6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
		Mercury			6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03	
			Exp. Route Total								2E-07					8E-02	
			Exposure Point Total								2E-07					8E-02	
			Station NT-1 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
		Arsenic			5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
		Cadmium			3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
Chromium VI	6E+01	ug/L			4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02			
Lead																	
Manganese	6E+02	ug/L			2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03			
Mercury	6E-01	ug/L			2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03			
	Exp. Route Total								2E-07					8E-02			
	Exposure Point Total								2E-07					8E-02			

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water (cont.)	Surface Water (cont.)	Station NT-2 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04	
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02	
				Lead													
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03	
			Exp. Route Total									2E-07					
			Exposure Point Total									2E-07					8E-02
			Station NT-3 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
		Arsenic			5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
		Cadmium			3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
		Chromium VI			6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02	
		Lead															
		Manganese			6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
		Mercury			6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03	
			Exp. Route Total									2E-07					
			Exposure Point Total									2E-07					8E-02
			Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
		Arsenic			5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
		Cadmium			3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
		Chromium VI			6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02	
		Lead															
		Manganese			6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
Mercury	6E-01	ug/L			2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03			
	Exp. Route Total									2E-07							
	Exposure Point Total									2E-07					8E-02		

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water (cont.)	Surface Water (cont.)	Station WW (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04	
				Arsenic	5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
				Cadmium	3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
				Chromium VI	6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02	
				Lead													
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
				Mercury	6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03	
			Exp. Route Total									2E-07				8E-02	
			Exposure Point Total									2E-07				8E-02	
			Station JY (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	4.5E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.1E-09	5.2E-09	mg/kg-day	1.3E-05	mg/kg-day	4.0E-04
		Arsenic			5E+01	ug/L	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-07	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	6.2E-03	
		Cadmium			3E+00	ug/L	8.5E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.5E-05	mg/kg-day	4.0E-03	
		Chromium VI			6E+01	ug/L	4.0E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	7.5E-05	mg/kg-day	6.3E-02	
		Lead															
		Manganese			6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
		Mercury			6E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	2.4E-08	mg/kg-day	2.1E-05	mg/kg-day	1.2E-03	
			Exp. Route Total									2E-07				8E-02	
			Exposure Point Total									2E-07				8E-02	
			Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	5.9E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	5.4E-09	6.9E-09	mg/kg-day	1.3E-05	mg/kg-day	5.3E-04
		Arsenic			5E+01	ug/L	2.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.2E-07	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	8.2E-03	
		Cadmium			3E+00	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.3E-03	
Chromium VI	6E+01	ug/L			5.4E-07	mg/kg-day	N/A	N/A	N/A	6.3E-06	mg/kg-day	7.5E-05	mg/kg-day	8.3E-02			
Lead																	
Manganese	6E+02	ug/L			2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02			
Mercury	6E-01	ug/L			2.8E-09	mg/kg-day	N/A	N/A	N/A	3.2E-08	mg/kg-day	2.1E-05	mg/kg-day	1.5E-03			
	Exp. Route Total									3E-07				1E-01			
	Exposure Point Total									3E-07				1E-01			

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03	
				Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04	
				Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04	
				Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03	
				Lead													
				Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03	
				Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05	
			Exp. Route Total								6E-08					1E-02	
			Exposure Point Total								6E-08						1E-02
			Station TT-31 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
		Arsenic			2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03	
		Cadmium			2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04	
		Chromium VI			1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02	
		Lead															
		Manganese			8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02	
		Mercury			1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04	
			Exp. Route Total								2E-07					3E-02	
			Exposure Point Total								2E-07						3E-02
			Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
		Arsenic			2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03	
		Cadmium			2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04	
Chromium VI	1E+01	ug/L			1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02			
Lead																	
Manganese	8E+02	ug/L			3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02			
Mercury	1E-01	ug/L			6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04			
	Exp. Route Total								2E-07					5E-02			
	Exposure Point Total								2E-07						5E-02		

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03	
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03	
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04	
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02	
				Lead													
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02	
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04	
			Exp. Route Total								2E-07					5E-02	
			Exposure Point Total								2E-07					5E-02	
			Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
		Arsenic			2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03	
		Cadmium			2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04	
		Chromium VI			1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02	
		Lead															
		Manganese			8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02	
		Mercury			1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04	
			Exp. Route Total								2E-07					5E-02	
			Exposure Point Total								2E-07					5E-02	
			Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
		Arsenic			2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03	
		Cadmium			2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04	
Chromium VI	1E+01	ug/L			1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02			
Lead																	
Manganese	8E+02	ug/L			3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02			
Mercury	1E-01	ug/L			6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04			
	Exp. Route Total								2E-07					5E-02			
	Exposure Point Total								2E-07					5E-02			

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	2.3E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	9.3E-08	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03	
				Arsenic	2E+01	ug/L	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03	
				Cadmium	2E-01	ug/L	1.0E-09	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.5E-05	mg/kg-day	4.9E-04	
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02	
				Lead													
				Manganese	8E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.5E-02	
				Mercury	1E-01	ug/L	6.7E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	2.1E-05	mg/kg-day	3.7E-04	
			Exp. Route Total								2E-07					5E-02	
			Exposure Point Total								2E-07						5E-02
			Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
		Arsenic			2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04	
		Cadmium			2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04	
		Chromium VI			1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03	
		Lead															
		Manganese			8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03	
		Mercury			1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05	
			Exp. Route Total								6E-08					1E-02	
			Exposure Point Total								6E-08						1E-02
			Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
		Arsenic			2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03	
		Cadmium			2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04	
Chromium VI	1E+01	ug/L			8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02			
Lead																	
Manganese	8E+02	ug/L			2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02			
Mercury	1E-01	ug/L			5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04			
	Exp. Route Total								2E-07					3E-02			
	Exposure Point Total								2E-07						3E-02		

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water (cont.)	Surface Water (cont.)	Station 09 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03		
				Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03		
				Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04		
				Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02		
				Lead														
				Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02		
				Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04		
		Exp. Route Total								2E-07								
		Exposure Point Total								2E-07						3E-02		
		Surface Water (cont.)	Surface Water (cont.)	Station DA (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.7E-07	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	7.0E-08	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.8E-03
						Arsenic	2E+01	ug/L	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
						Cadmium	2E-01	ug/L	7.9E-10	mg/kg-day	N/A	N/A	N/A	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
						Chromium VI	1E+01	ug/L	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
						Lead												
						Manganese	8E+02	ug/L	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
						Mercury	1E-01	ug/L	5.0E-10	mg/kg-day	N/A	N/A	N/A	5.9E-09	mg/kg-day	2.1E-05	mg/kg-day	2.8E-04
				Exp. Route Total								2E-07						
Exposure Point Total										2E-07						3E-02		
Surface Water (cont.)	Surface Water (cont.)			Station AM (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	5.8E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.3E-08	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03
						Arsenic	2E+01	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.4E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.8E-04
						Cadmium	2E-01	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	3.1E-09	mg/kg-day	2.5E-05	mg/kg-day	1.2E-04
						Chromium VI	1E+01	ug/L	2.8E-08	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	7.5E-05	mg/kg-day	4.3E-03
						Lead												
						Manganese	8E+02	ug/L	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.7E-03
						Mercury	1E-01	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	2.0E-09	mg/kg-day	2.1E-05	mg/kg-day	9.3E-05
				Exp. Route Total								6E-08						
		Exposure Point Total								6E-08						1E-02		
		Surface Water (cont.)	Surface Water (cont.)	Station KF (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.5E-08	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04
						Chromium VI	2E+00	ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	2.3E-03
						Manganese	4E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
				Exp. Route Total								3E-08						
				Exposure Point Total								3E-08						8E-03

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water (cont.)	Surface Water (cont.)	Station 08 (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.5E-08	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.0E-04	
				Chromium VI	2E+00	ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	2.3E-03	
				Manganese	4E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03	
				Exp. Route Total													
		Exposure Point Total															8E-03
		Station 07/DP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03	
				Lead													
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04	
		Exp. Route Total															1E-02
		Exposure Point Total															1E-02
		Station LP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03	
				Lead													
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04	
		Exp. Route Total															1E-02
		Exposure Point Total															1E-02
		Station AS (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	2.1E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.3E-03	
				Lead													
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.3E-03	
				Mercury	2E-01	ug/L	7.5E-10	mg/kg-day	N/A	N/A	N/A	8.8E-09	mg/kg-day	2.1E-05	mg/kg-day	4.2E-04	
		Exp. Route Total															1E-02
		Exposure Point Total															1E-02
		Station 06 (Reach 4)	Dermal	Chromium VI	4E+00	ug/L	2.9E-08	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03	
Lead																	
Manganese	5E+02			ug/L	1.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	2.8E-03	mg/kg-day	7.2E-03			
Exp. Route Total																	
Exposure Point Total															1E-02		
Exposure Point Total															1E-02		

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water (cont.)	Surface Water (cont.)	Station 05 (Reach 5)	Dermal	Chloroform	1E+00	ug/L	4.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-02	mg/kg-day	5.2E-05	
				Tetrachloroethene	2E+00	ug/L	5.9E-07	mg/kg-day	5.4E-01	(mg/kg-day) ⁻¹	3.2E-07	6.9E-06	mg/kg-day	1.0E-02	mg/kg-day	6.9E-04	
				Chromium VI	9E-01	ug/L	5.8E-09	mg/kg-day	N/A	N/A	N/A	6.8E-08	mg/kg-day	7.5E-05	mg/kg-day	9.0E-04	
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.6E-03	
				Exp. Route Total													
		Exposure Point Total															
		Station 04 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04	
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03	
				Lead													
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03	
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04	
		Exp. Route Total															
		Exposure Point Total															
		Station 03 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04	
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03	
				Lead													
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03	
				Mercury	7E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04	
		Exp. Route Total															
		Exposure Point Total															
		Station 02 (Upper Reach 6)	Dermal	Arsenic	5E+00	ug/L	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04	
				Chromium VI	4E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	3.0E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03	
				Lead													
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.5E-03	
Mercury	7E-02			ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	2.8E-09	mg/kg-day	2.1E-05	mg/kg-day	1.3E-04			
Exp. Route Total																	
Exposure Point Total																	
Exposure Point Total																	

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion	Arsenic	3E+00	ug/L	9.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.7E-03	
				Chromium VI	2E+00	ug/L	4.6E-08	mg/kg-day	N/A	N/A	N/A	5.3E-07	mg/kg-day	3.0E-03	mg/kg-day	1.8E-04	
				Lead													
				Manganese	7E+01	ug/L	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	7.0E-02	mg/kg-day	3.6E-04	
				Mercury	4E-02	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	3.0E-04	mg/kg-day	4.7E-05	
			Exp. Route Total								1E-07					4E-03	
			Dermal	Arsenic	3E+00	ug/L	1.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-08	1.5E-07	mg/kg-day	3.0E-04	mg/kg-day	4.9E-04	
				Chromium VI	2E+00	ug/L	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	7.5E-05	mg/kg-day	1.9E-03	
				Lead													
				Manganese	7E+01	ug/L	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03	
				Mercury	4E-02	ug/L	1.6E-10	mg/kg-day	N/A	N/A	N/A	1.9E-09	mg/kg-day	2.1E-05	mg/kg-day	9.0E-05	
			Exp. Route Total								2E-08					4E-03	
			Exposure Point Total								2E-07						8E-03
			Exposure Medium Total								N/A						N/A
			Sediment	Sediment	Station NR	Ingestion	Arsenic	2E+02	mg/kg	1.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.3E-05	2.0E-04	mg/kg-day	5.9E-04
Barium	6E+01	mg/kg					4.6E-06	mg/kg-day	N/A	N/A	N/A	5.3E-05	mg/kg-day	7.0E-02	mg/kg-day	7.6E-04	
Cadmium	2E+00	mg/kg					1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	2.1E-03	
Chromium III	3E+02	mg/kg					2.0E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	1.5E+00	mg/kg-day	1.6E-04	
Copper	3E+02	mg/kg					2.5E-05	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-02	mg/kg-day	9.6E-03	
Lead																	
Manganese	2E+02	mg/kg					2.0E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.4E-03	
Mercury	4E+00	mg/kg					3.7E-07	mg/kg-day	N/A	N/A	N/A	4.3E-06	mg/kg-day	1.0E-04	mg/kg-day	4.3E-02	
Nickel	1E+01	mg/kg					1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.0E-02	mg/kg-day	6.7E-04	
Vanadium	3E+01	mg/kg					2.5E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.0E-03	mg/kg-day	2.9E-02	
Zinc	5E+02	mg/kg				4.0E-05	mg/kg-day	N/A	N/A	N/A	4.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.5E-03		
Exp. Route Total											1E-05					4E-01	
Dermal	Arsenic	2E+02				mg/kg	2.9E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.4E-06	3.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01	
	Cadmium	2E+00				mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	2.5E-05	mg/kg-day	4.7E-03	
Exp. Route Total											4E-06					1E-01	
Exposure Point Total								2E-05						6E-01			

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations							
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient			
							Value	Units	Value	Units		Value	Units	Value	Units				
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion	Benzo(a)anthracene	1E+00	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.5E-08	1.0E-06	mg/kg-day	N/A	N/A	N/A			
				Benzo(a)pyrene	9E-01	mg/kg	7.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.3E-07	8.5E-07	mg/kg-day	N/A	N/A	N/A			
				Benzo(b)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A			
				Benzo(k)fluoranthene	1E+00	mg/kg	9.0E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.5E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A			
				Phenanthrene	3E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.5E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04			
				Antimony	1E+00	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03			
				Arsenic	7E+01	mg/kg	6.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	4.6E-06	7.0E-05	mg/kg-day	5.9E-04	mg/kg-day	1.2E-01			
				Barium	2E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	7.0E-02	mg/kg-day	2.5E-04			
				Cadmium	1E+00	mg/kg	8.1E-08	mg/kg-day	N/A	N/A	N/A	9.5E-07	mg/kg-day	1.0E-03	mg/kg-day	9.5E-04			
				Chromium III	2E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	1.5E+00	mg/kg-day	1.4E-04			
				Copper	6E+01	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	6.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.1E-03			
				Lead															
				Manganese	2E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	7.0E-02	mg/kg-day	2.3E-03			
				Mercury	1E+00	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-04	mg/kg-day	1.3E-02			
				Nickel	1E+01	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	9.9E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04			
				Thallium	8E-01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-07	mg/kg-day	8.0E-05	mg/kg-day	9.6E-03			
				Vanadium	1E+01	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02			
			Zinc	3E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-01	mg/kg-day	8.6E-04				
			Exp. Route Total										5E-06				2E-01		
						Dermal	Benzo(a)anthracene	1E+00	mg/kg	6.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.8E-08	7.6E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(a)pyrene	9E-01	mg/kg	5.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.9E-07	6.2E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(b)fluoranthene	2E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.1E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
							Benzo(k)fluoranthene	1E+00	mg/kg	6.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.8E-09	7.6E-07	mg/kg-day	N/A	N/A	N/A
							Phenanthrene	3E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	9.0E-05
							Arsenic	7E+01	mg/kg	1.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.5E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	3.9E-02
							Cadmium	1E+00	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	5.3E-08	mg/kg-day	2.5E-05	mg/kg-day	2.1E-03
			Exp. Route Total										2E-06				4E-02		
Exposure Point Total										7E-06				2E-01					

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion	Tetrachloroethene	3E+00	mg/kg	3.4E-07	mg/kg-day	5.4E-01	(mg/kg-day) ⁻¹	1.8E-07	3.9E-06	mg/kg-day	1.0E-02	mg/kg-day	3.9E-04				
				Trichloroethene	7E-01	mg/kg	8.5E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	3.4E-08	9.9E-07	mg/kg-day	3.0E-04	mg/kg-day	3.3E-03				
				Benzo(a)anthracene	3E-01	mg/kg	3.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.7E-08	4.3E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	2E-01	mg/kg	2.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-07	2.8E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	4E-01	mg/kg	5.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.9E-08	6.3E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	5E-01	mg/kg	6.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.8E-09	7.7E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	4E-02	mg/kg	5.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.9E-08	6.3E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-08	3.1E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	2.0E-02	mg/kg-day	3.5E-05				
				Aroclor 1260	3E-02	mg/kg	3.5E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	7.1E-09	4.1E-08	mg/kg-day	2.0E-05	mg/kg-day	2.1E-03				
				Antimony	3E+02	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	4.7E-04	mg/kg-day	4.0E-04	mg/kg-day	1.2E+00				
				Arsenic	8E+01	mg/kg	9.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	7.3E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01				
				Barium	5E+01	mg/kg	6.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	7.0E-02	mg/kg-day	1.0E-03				
				Cadmium	1E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03				
				Chromium III	6E+01	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	1.5E+00	mg/kg-day	6.2E-05				
				Copper	3E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	3.0E-02	mg/kg-day	1.4E-03				
				Lead																
				Manganese	1E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	7.0E-02	mg/kg-day	2.4E-03				
				Mercury	5E-01	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	1.0E-04	mg/kg-day	6.6E-03				
				Nickel	1E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	8.1E-04				
				Vanadium	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	1.0E-03	mg/kg-day	5.8E-02				
				Zinc	1E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.5E-04				
				Exp. Route Total										8E-06					1E+00	
							Dermal	Benzo(a)anthracene	3E-01	mg/kg	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-08	3.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	2E-01	mg/kg	1.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.3E-07	2.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	4E-01	mg/kg	3.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.9E-08	4.6E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	5E-01	mg/kg	4.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.5E-09	5.6E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	3.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.9E-08	4.6E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-08	2.3E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	4.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	2.0E-02	mg/kg-day	2.5E-05				
				Aroclor 1260	3E-02	mg/kg	2.8E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	5.6E-09	3.2E-08	mg/kg-day	2.0E-05	mg/kg-day	1.6E-03				
				Arsenic	8E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-06	1.8E-05	mg/kg-day	3.0E-04	mg/kg-day	6.2E-02				
				Cadmium	1E+00	mg/kg	9.8E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.6E-03				
Exp. Route Total											3E-06					7E-02				
Exposure Point Total											1E-05					2E+00				

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 13/TT-27	Ingestion	Trichloroethene	4E-02	mg/kg	4.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.8E-09	5.3E-08	mg/kg-day	3.0E-04	mg/kg-day	1.8E-04				
				Benzo(a)anthracene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-07	1.8E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.2E-06	1.9E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	3E+00	mg/kg	3.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.3E-07	3.7E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	2E+00	mg/kg	2.8E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.0E-08	3.2E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.8E-07	4.5E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04				
				Aroclor 1254	5E-02	mg/kg	5.5E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.1E-08	6.4E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03				
				Aroclor 1260	3E-01	mg/kg	3.8E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	7.6E-08	4.4E-07	mg/kg-day	2.0E-05	mg/kg-day	2.2E-02				
				Antimony	6E+01	mg/kg	7.4E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	4.0E-04	mg/kg-day	2.2E-01				
				Arsenic	4E+03	mg/kg	4.4E-04	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.4E-04	5.2E-03	mg/kg-day	5.9E-04	mg/kg-day	8.8E+00				
				Barium	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	7.0E-02	mg/kg-day	4.9E-03				
				Cadmium	9E+00	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02				
				Chromium III	6E+02	mg/kg	6.9E-05	mg/kg-day	N/A	N/A	N/A	8.0E-04	mg/kg-day	1.5E+00	mg/kg-day	5.3E-04				
				Copper	2E+03	mg/kg	2.0E-04	mg/kg-day	N/A	N/A	N/A	2.3E-03	mg/kg-day	3.0E-02	mg/kg-day	7.8E-02				
				Lead																
				Manganese	8E+02	mg/kg	9.3E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	7.0E-02	mg/kg-day	1.5E-02				
				Mercury	2E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-04	mg/kg-day	2.8E-01				
				Nickel	3E+01	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	4.6E-05	mg/kg-day	2.0E-02	mg/kg-day	2.3E-03				
				Thallium	4E+00	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	8.0E-05	mg/kg-day	6.6E-02				
				Vanadium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	1.0E-03	mg/kg-day	1.2E-01				
				Zinc	2E+03	mg/kg	2.7E-04	mg/kg-day	N/A	N/A	N/A	3.2E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02				
				Exp. Route Total										3E-04					1E+01	
							Dermal	Benzo(a)anthracene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.3E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.8E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	3E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-07	2.7E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	2E+00	mg/kg	2.0E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.5E-08	2.3E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.0E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	7.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.7E-08	9.1E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	2E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	8.8E-05				
				Aroclor 1254	5E-02	mg/kg	4.3E-09	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	5.0E-08	mg/kg-day	2.0E-05	mg/kg-day	2.5E-03				
				Aroclor 1260	3E-01	mg/kg	3.0E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	5.9E-08	3.5E-07	mg/kg-day	2.0E-05	mg/kg-day	1.7E-02				
				Arsenic	4E+03	mg/kg	7.5E-05	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-04	8.7E-04	mg/kg-day	3.0E-04	mg/kg-day	2.9E+00				
				Cadmium	9E+00	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	7.5E-07	mg/kg-day	2.5E-05	mg/kg-day	3.0E-02				
Exp. Route Total											1E-04					3E+00				
Exposure Point Total											5E-04					1E+01				

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion	Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04				
				Benzo(a)anthracene	6E-01	mg/kg	6.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.0E-08	8.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	2E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.3E-07	2.1E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	7E-01	mg/kg	8.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.4E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	6E-01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	2.0E-02	mg/kg-day	4.1E-05				
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03				
				Antimony	3E+01	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	5.0E-05	mg/kg-day	4.0E-04	mg/kg-day	1.2E-01				
				Arsenic	2E+03	mg/kg	2.3E-04	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.8E-04	2.7E-03	mg/kg-day	5.9E-04	mg/kg-day	4.6E+00				
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.9E-03				
				Cadmium	1E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02				
				Chromium III	1E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	1.5E+00	mg/kg-day	1.1E-03				
				Copper	1E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	3.0E-02	mg/kg-day	5.7E-02				
				Lead																
				Manganese	5E+02	mg/kg	6.2E-05	mg/kg-day	N/A	N/A	N/A	7.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.0E-02				
				Mercury	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	1.0E-04	mg/kg-day	3.9E-01				
				Nickel	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	2.0E-02	mg/kg-day	2.9E-03				
				Thallium	8E-01	mg/kg	9.4E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	8.0E-05	mg/kg-day	1.4E-02				
				Vanadium	1E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.0E-03	mg/kg-day	1.4E-01				
				Zinc	2E+03	mg/kg	2.8E-04	mg/kg-day	N/A	N/A	N/A	3.3E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02				
				Chromium VI	2E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	3.0E-03	mg/kg-day	7.3E-04				
				Exp. Route Total											2E-04					
							Dermal	Benzo(a)anthracene	6E-01	mg/kg	5.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.6E-08	5.8E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	2E+00	mg/kg	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.7E-08	1.6E-06	mg/kg-day	N/A	N/A	N/A
Benzo(k)fluoranthene	7E-01	mg/kg	6.4E-08					mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.7E-09	7.5E-07	mg/kg-day	N/A	N/A	N/A				
Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08					mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A				
Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08					mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A				
Phenanthrene	6E-01	mg/kg	5.1E-08					mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	2.0E-02	mg/kg-day	3.0E-05				
Aroclor 1260	6E-02	mg/kg	5.6E-09					mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03				
Arsenic	2E+03	mg/kg	3.9E-05					mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.9E-05	4.6E-04	mg/kg-day	3.0E-04	mg/kg-day	1.5E+00				
Cadmium	1E+01	mg/kg	7.4E-08					mg/kg-day	N/A	N/A	N/A	8.6E-07	mg/kg-day	2.5E-05	mg/kg-day	3.4E-02				
Exp. Route Total											6E-05									
Exposure Point Total											2E-04									

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station NT-1	Ingestion	Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04				
				Benzo(a)anthracene	5E-01	mg/kg	6.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.5E-08	7.2E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.8E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.3E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.1E-09	1.3E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	6E-01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	2.0E-02	mg/kg-day	4.1E-05				
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03				
				Antimony	1E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	4.0E-04	mg/kg-day	5.1E-02				
				Arsenic	2E+03	mg/kg	3.0E-04	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.3E-04	3.5E-03	mg/kg-day	5.9E-04	mg/kg-day	6.0E+00				
				Barium	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.2E-03				
				Cadmium	9E+00	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02				
				Chromium III	2E+03	mg/kg	1.9E-04	mg/kg-day	N/A	N/A	N/A	2.2E-03	mg/kg-day	1.5E+00	mg/kg-day	1.5E-03				
				Copper	8E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-02	mg/kg-day	4.0E-02				
				Lead																
				Manganese	1E+03	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	7.0E-02	mg/kg-day	2.2E-02				
				Mercury	5E+00	mg/kg	6.0E-07	mg/kg-day	N/A	N/A	N/A	7.0E-06	mg/kg-day	1.0E-04	mg/kg-day	7.0E-02				
				Nickel	4E+01	mg/kg	5.0E-06	mg/kg-day	N/A	N/A	N/A	5.8E-05	mg/kg-day	2.0E-02	mg/kg-day	2.9E-03				
				Thallium	1E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	8.0E-05	mg/kg-day	2.0E-01				
				Vanadium	7E+01	mg/kg	8.5E-06	mg/kg-day	N/A	N/A	N/A	9.9E-05	mg/kg-day	1.0E-03	mg/kg-day	9.9E-02				
				Zinc	2E+03	mg/kg	2.0E-04	mg/kg-day	N/A	N/A	N/A	2.4E-03	mg/kg-day	3.0E-01	mg/kg-day	7.9E-03				
				Chromium VI	2E+00	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-03	mg/kg-day	9.5E-04				
				Exp. Route Total											2E-04					
							Dermal	Benzo(a)anthracene	5E-01	mg/kg	4.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.3E-08	5.3E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	9E-01	mg/kg	7.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.7E-07	9.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.3E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	9E-01	mg/kg	8.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.9E-09	9.4E-07	mg/kg-day	N/A	N/A	N/A
Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08					mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A				
Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08					mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A				
Phenanthrene	6E-01	mg/kg	5.1E-08					mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	2.0E-02	mg/kg-day	3.0E-05				
Aroclor 1260	6E-02	mg/kg	5.6E-09					mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03				
Arsenic	2E+03	mg/kg	5.1E-05					mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.6E-05	5.9E-04	mg/kg-day	3.0E-04	mg/kg-day	2.0E+00				
Cadmium	9E+00	mg/kg	5.8E-08					mg/kg-day	N/A	N/A	N/A	6.8E-07	mg/kg-day	2.5E-05	mg/kg-day	2.7E-02				
Exp. Route Total											8E-05									
Exposure Point Total											3E-04									

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station NT-2	Ingestion	Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04				
				Benzo(a)anthracene	4E-01	mg/kg	5.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.8E-08	6.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	1.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.0E-07	1.6E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.6E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	7.7E-07	mg/kg-day	2.0E-02	mg/kg-day	3.9E-05				
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03				
				Antimony	2E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	4.0E-04	mg/kg-day	5.4E-02				
				Arsenic	2E+03	mg/kg	2.2E-04	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.7E-04	2.5E-03	mg/kg-day	5.9E-04	mg/kg-day	4.3E+00				
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.8E-03				
				Cadmium	6E+00	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	8.9E-06	mg/kg-day	1.0E-03	mg/kg-day	8.9E-03				
				Chromium III	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.8E-04				
				Copper	8E+02	mg/kg	9.2E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-02	mg/kg-day	3.6E-02				
				Lead																
				Manganese	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	7.0E-02	mg/kg-day	1.8E-02				
				Mercury	5E+00	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	1.0E-04	mg/kg-day	7.5E-02				
				Nickel	3E+01	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	2.0E-02	mg/kg-day	2.4E-03				
				Thallium	6E-01	mg/kg	6.7E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	8.0E-05	mg/kg-day	9.8E-03				
				Vanadium	7E+01	mg/kg	8.1E-06	mg/kg-day	N/A	N/A	N/A	9.4E-05	mg/kg-day	1.0E-03	mg/kg-day	9.4E-02				
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-01	mg/kg-day	6.0E-03				
				Exp. Route Total										2E-04					5E+00	
							Dermal	Benzo(a)anthracene	4E-01	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-08	4.4E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.5E-08	1.2E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	7E-01	mg/kg	6.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.8E-09	7.6E-07	mg/kg-day	N/A	N/A	N/A
Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08					mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A				
Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08					mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A				
Phenanthrene	5E-01	mg/kg	4.8E-08					mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	2.0E-02	mg/kg-day	2.8E-05				
Aroclor 1260	6E-02	mg/kg	5.6E-09					mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03				
Arsenic	2E+03	mg/kg	3.6E-05					mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.4E-05	4.2E-04	mg/kg-day	3.0E-04	mg/kg-day	1.4E+00				
Cadmium	6E+00	mg/kg	4.3E-08					mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	2.5E-05	mg/kg-day	2.0E-02				
Exp. Route Total										6E-05				1E+00						
Exposure Point Total										2E-04				6E+00						

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station NT-3	Ingestion	Trichloroethene	5E-02	mg/kg	6.5E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.6E-09	7.6E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04				
				Benzo(a)anthracene	6E-01	mg/kg	6.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.0E-08	8.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	2E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.3E-07	2.1E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	7E-01	mg/kg	8.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.4E-09	1.0E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.9E-07	4.6E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.6E-08	1.1E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	6E-01	mg/kg	7.0E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	2.0E-02	mg/kg-day	4.1E-05				
				Aroclor 1260	6E-02	mg/kg	7.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-08	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	4.1E-03				
				Antimony	2E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	4.0E-04	mg/kg-day	5.4E-02				
				Arsenic	5E+02	mg/kg	6.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	4.7E-05	7.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.2E+00				
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.9E-03				
				Cadmium	7E+00	mg/kg	8.2E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	1.0E-03	mg/kg-day	9.6E-03				
				Chromium III	1E+03	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	1.5E+00	mg/kg-day	9.9E-04				
				Copper	8E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-02	mg/kg-day	4.0E-02				
				Lead																
				Manganese	1E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	2.0E-02				
				Mercury	5E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.2E-06	mg/kg-day	1.0E-04	mg/kg-day	7.2E-02				
				Nickel	4E+01	mg/kg	4.4E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	2.0E-02	mg/kg-day	2.6E-03				
				Thallium	6E-01	mg/kg	6.9E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	8.0E-05	mg/kg-day	1.0E-02				
				Vanadium	7E+01	mg/kg	8.3E-06	mg/kg-day	N/A	N/A	N/A	9.7E-05	mg/kg-day	1.0E-03	mg/kg-day	9.7E-02				
				Zinc	1E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	3.0E-01	mg/kg-day	5.7E-03				
				Exp. Route Total										5E-05					2E+00	
				Sediment (cont.)	Sediment (cont.)	Station NT-3	Dermal	Benzo(a)anthracene	6E-01	mg/kg	5.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.6E-08	5.8E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	2E+00	mg/kg	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.7E-08	1.6E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	7E-01	mg/kg	6.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.7E-09	7.5E-07	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	3E-01	mg/kg	2.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.1E-07	3.3E-07	mg/kg-day	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.6E-08					mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.8E-08	7.7E-07	mg/kg-day	N/A	N/A	N/A				
Phenanthrene	6E-01	mg/kg	5.1E-08					mg/kg-day	N/A	N/A	N/A	5.9E-07	mg/kg-day	2.0E-02	mg/kg-day	3.0E-05				
Aroclor 1260	6E-02	mg/kg	5.6E-09					mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.1E-08	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	3.2E-03				
Arsenic	5E+02	mg/kg	1.0E-05					mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.5E-05	1.2E-04	mg/kg-day	3.0E-04	mg/kg-day	4.0E-01				
Cadmium	7E+00	mg/kg	4.6E-08					mg/kg-day	N/A	N/A	N/A	5.4E-07	mg/kg-day	2.5E-05	mg/kg-day	2.1E-02				
Exp. Route Total														2E-05				4E-01		
Exposure Point Total										6E-05				2E+00						

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion	Trichloroethene	4E-02	mg/kg	5.1E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	2.1E-09	6.0E-08	mg/kg-day	3.0E-04	mg/kg-day	2.0E-04				
				Benzo(a)anthracene	1E-01	mg/kg	1.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-08	1.9E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	2E-01	mg/kg	2.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.4E-07	2.3E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	3E-01	mg/kg	3.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.6E-08	4.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	2E-01	mg/kg	2.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.8E-09	2.8E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	5E-02	mg/kg	5.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.1E-08	6.6E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	2E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.0E-02	mg/kg-day	1.1E-05				
				Aroclor 1260	1E-02	mg/kg	1.3E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.7E-09	1.6E-08	mg/kg-day	2.0E-05	mg/kg-day	7.8E-04				
				Antimony	9E+00	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	4.0E-04	mg/kg-day	3.3E-02				
				Arsenic	3E+02	mg/kg	3.2E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.5E-05	3.7E-04	mg/kg-day	5.9E-04	mg/kg-day	6.3E-01				
				Barium	9E+01	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	7.0E-02	mg/kg-day	1.9E-03				
				Cadmium	6E+00	mg/kg	7.8E-07	mg/kg-day	N/A	N/A	N/A	9.1E-06	mg/kg-day	1.0E-03	mg/kg-day	9.1E-03				
				Chromium III	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.8E-04				
				Copper	6E+02	mg/kg	7.7E-05	mg/kg-day	N/A	N/A	N/A	8.9E-04	mg/kg-day	3.0E-02	mg/kg-day	3.0E-02				
				Lead																
				Manganese	1E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	2.1E-02				
				Mercury	3E+00	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	4.2E-06	mg/kg-day	1.0E-04	mg/kg-day	4.2E-02				
				Nickel	3E+01	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	2.0E-02	mg/kg-day	2.5E-03				
				Thallium	4E-01	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	6.2E-07	mg/kg-day	8.0E-05	mg/kg-day	7.8E-03				
				Vanadium	7E+01	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	1.0E-03	mg/kg-day	9.3E-02				
				Zinc	1E+03	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	5.2E-03				
				Exp. Route Total										2E-05					9E-01	
				Sediment (cont.)	Sediment (cont.)	Station WG	Dermal	Benzo(a)anthracene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.4E-09	1.3E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	2E-01	mg/kg	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.0E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	3E-01	mg/kg	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-08	3.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	2E-01	mg/kg	1.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.3E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
Dibenz(a,h)anthracene	5E-02	mg/kg	4.1E-09					mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.0E-08	4.8E-08	mg/kg-day	N/A	N/A	N/A				
Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.2E-08					mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A				
Phenanthrene	2E-01	mg/kg	1.4E-08					mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.0E-02	mg/kg-day	8.3E-06				
Aroclor 1260	1E-02	mg/kg	1.1E-09					mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.1E-09	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	6.1E-04				
Arsenic	3E+02	mg/kg	5.4E-06					mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.1E-06	6.3E-05	mg/kg-day	3.0E-04	mg/kg-day	2.1E-01				
Cadmium	6E+00	mg/kg	4.4E-08					mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	2.5E-05	mg/kg-day	2.0E-02				
Exp. Route Total														8E-06				2E-01		
Exposure Point Total										3E-05				1E+00						

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station WW	Ingestion	Benzo(b)fluoranthene	3E-01	mg/kg	4.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.9E-08	4.7E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	6E-01	mg/kg	7.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.4E-09	8.7E-07	mg/kg-day	N/A	N/A	N/A				
				Antimony	6E+01	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	8.2E-05	mg/kg-day	4.0E-04	mg/kg-day	2.0E-01				
				Arsenic	5E+01	mg/kg	6.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	5.1E-06	7.8E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01				
				Barium	1E+03	mg/kg	1.8E-04	mg/kg-day	N/A	N/A	N/A	2.1E-03	mg/kg-day	7.0E-02	mg/kg-day	3.0E-02				
				Cadmium	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02				
				Chromium III	2E+04	mg/kg	1.9E-03	mg/kg-day	N/A	N/A	N/A	2.2E-02	mg/kg-day	1.5E+00	mg/kg-day	1.5E-02				
				Copper	4E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	5.9E-04	mg/kg-day	3.0E-02	mg/kg-day	2.0E-02				
				Lead																
				Manganese	4E+02	mg/kg	5.2E-05	mg/kg-day	N/A	N/A	N/A	6.1E-04	mg/kg-day	7.0E-02	mg/kg-day	8.6E-03				
				Mercury	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02				
				Nickel	3E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.8E-03				
				Thallium	2E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	8.0E-05	mg/kg-day	2.7E-02				
				Vanadium	8E+01	mg/kg	9.3E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	1.0E-03	mg/kg-day	1.1E-01				
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.9E-03	mg/kg-day	3.0E-01	mg/kg-day	6.4E-03				
				Chromium VI	2E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-03	mg/kg-day	9.6E-03				
				Exp. Route Total											5E-06				6E-01	
							Dermal	Benzo(b)fluoranthene	3E-01	mg/kg	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-08	3.4E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	6E-01	mg/kg	5.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.0E-09	6.3E-07	mg/kg-day	N/A	N/A	N/A
								Arsenic	5E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
								Cadmium	1E+01	mg/kg	6.5E-08	mg/kg-day	N/A	N/A	N/A	7.6E-07	mg/kg-day	2.5E-05	mg/kg-day	3.0E-02
				Exp. Route Total											2E-06				7E-02	
				Exposure Point Total											7E-06				7E-01	

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station JY	Ingestion	Aroclor 1254	1E+00	mg/kg	1.7E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	3.3E-07	1.9E-06	mg/kg-day	2.0E-05	mg/kg-day	9.7E-02				
				Aroclor 1260	1E+00	mg/kg	1.8E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	3.6E-07	2.1E-06	mg/kg-day	2.0E-05	mg/kg-day	1.0E-01				
				Antimony	2E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	4.0E-04	mg/kg-day	6.9E-02				
				Arsenic	3E+02	mg/kg	3.4E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.7E-05	4.0E-04	mg/kg-day	5.9E-04	mg/kg-day	6.8E-01				
				Barium	2E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	7.0E-02	mg/kg-day	3.7E-03				
				Cadmium	1E+01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-03	mg/kg-day	2.1E-02				
				Chromium III	1E+03	mg/kg	1.4E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	1.5E+00	mg/kg-day	1.1E-03				
				Copper	5E+02	mg/kg	6.1E-05	mg/kg-day	N/A	N/A	N/A	7.2E-04	mg/kg-day	3.0E-02	mg/kg-day	2.4E-02				
				Lead																
				Manganese	4E+02	mg/kg	4.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	7.0E-02	mg/kg-day	7.4E-03				
				Mercury	2E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-04	mg/kg-day	2.6E-02				
				Nickel	8E+01	mg/kg	9.2E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	2.0E-02	mg/kg-day	5.4E-03				
				Thallium	4E+00	mg/kg	4.9E-07	mg/kg-day	N/A	N/A	N/A	5.8E-06	mg/kg-day	8.0E-05	mg/kg-day	7.2E-02				
				Vanadium	6E+01	mg/kg	7.8E-06	mg/kg-day	N/A	N/A	N/A	9.2E-05	mg/kg-day	1.0E-03	mg/kg-day	9.2E-02				
				Zinc	2E+03	mg/kg	2.9E-04	mg/kg-day	N/A	N/A	N/A	3.3E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02				
				Chromium VI	2E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	3.0E-03	mg/kg-day	7.2E-04				
				Exp. Route Total											3E-05				1E+00	
							Dermal	Aroclor 1254	1E+00	mg/kg	1.3E-07	mg/kg-day	N/A	(mg/kg-day) ⁻¹	N/A	1.5E-06	mg/kg-day	2.0E-05	mg/kg-day	7.6E-02
								Aroclor 1260	1E+00	mg/kg	1.4E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.8E-07	1.6E-06	mg/kg-day	2.0E-05	mg/kg-day	8.2E-02
								Arsenic	3E+02	mg/kg	5.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.7E-06	6.8E-05	mg/kg-day	3.0E-04	mg/kg-day	2.3E-01
								Cadmium	1E+01	mg/kg	9.9E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	2.5E-05	mg/kg-day	4.6E-02
Exp. Route Total											9E-06				4E-01					
Exposure Point Total												4E-05				2E+00				

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion	Antimony	5E+00	mg/kg	8.0E-07	mg/kg-day	N/A	N/A	N/A	9.4E-06	mg/kg-day	4.0E-04	mg/kg-day	2.3E-02	
				Arsenic	2E+02	mg/kg	3.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.8E-05	4.3E-04	mg/kg-day	5.9E-04	mg/kg-day	7.3E-01	
				Barium	1E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.8E-03	
				Cadmium	1E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	1.0E-03	mg/kg-day	2.0E-02	
				Chromium III	7E+02	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	1.5E+00	mg/kg-day	9.2E-04	
				Copper	4E+02	mg/kg	6.7E-05	mg/kg-day	N/A	N/A	N/A	7.9E-04	mg/kg-day	3.0E-02	mg/kg-day	2.6E-02	
				Lead													
				Manganese	1E+03	mg/kg	2.0E-04	mg/kg-day	N/A	N/A	N/A	2.3E-03	mg/kg-day	7.0E-02	mg/kg-day	3.3E-02	
				Mercury	1E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-04	mg/kg-day	2.6E-02	
				Nickel	4E+01	mg/kg	5.9E-06	mg/kg-day	N/A	N/A	N/A	6.9E-05	mg/kg-day	2.0E-02	mg/kg-day	3.4E-03	
				Thallium	1E+00	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	8.0E-05	mg/kg-day	2.6E-02	
				Vanadium	4E+01	mg/kg	7.3E-06	mg/kg-day	N/A	N/A	N/A	8.5E-05	mg/kg-day	1.0E-03	mg/kg-day	8.5E-02	
				Zinc	2E+03	mg/kg	3.3E-04	mg/kg-day	N/A	N/A	N/A	3.9E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02	
				Chromium VI	9E-01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	3.0E-03	mg/kg-day	6.0E-04	
				Exp. Route Total										3E-05			
			Dermal	Arsenic	2E+02	mg/kg	6.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.3E-06	7.2E-05	mg/kg-day	3.0E-04	mg/kg-day	2.4E-01	
				Cadmium	1E+01	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	2.5E-05	mg/kg-day	4.6E-02	
Exp. Route Total										9E-06					3E-01		
Exposure Point Total										4E-05					1E+00		

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion	Arsenic	1E+03	mg/kg	4.4E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.4E-05	5.1E-04	mg/kg-day	5.9E-04	mg/kg-day	8.7E-01		
				Barium	3E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	2.2E-04		
				Cadmium	7E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	1.0E-03	mg/kg-day	3.4E-03		
				Chromium III	5E+03	mg/kg	2.2E-04	mg/kg-day	N/A	N/A	N/A	2.5E-03	mg/kg-day	1.5E+00	mg/kg-day	1.7E-03		
				Copper	4E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-02	mg/kg-day	6.0E-02		
				Lead														
				Manganese	2E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	9.8E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03		
				Mercury	9E+01	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	4.2E-05	mg/kg-day	1.0E-04	mg/kg-day	4.2E-01		
				Nickel	8E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.0E-02	mg/kg-day	1.9E-04		
				Thallium	2E+00	mg/kg	6.1E-08	mg/kg-day	N/A	N/A	N/A	7.1E-07	mg/kg-day	8.0E-05	mg/kg-day	8.9E-03		
				Vanadium	2E+01	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	1.0E-03	mg/kg-day	1.0E-02		
				Zinc	1E+03	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.9E-03		
				Chromium VI	7E+00	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	3.0E-03	mg/kg-day	1.1E-03		
		Exp. Route Total									3E-05					1E+00		
					Dermal													
					Arsenic	1E+03	mg/kg	7.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-05	8.6E-05	mg/kg-day	3.0E-04	mg/kg-day	2.9E-01	
					Cadmium	7E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.5E-05	mg/kg-day	7.6E-03	
					Exp. Route Total							1E-05					3E-01	
					Exp. Point Total							4E-05					2E+00	
				Station TT-31	Ingestion	Arsenic	3E+01	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.8E-06	4.3E-05	mg/kg-day	5.9E-04	mg/kg-day	7.3E-02
						Barium	2E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	7.0E-02	mg/kg-day	3.2E-03
						Cadmium	6E+00	mg/kg	6.7E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	1.0E-03	mg/kg-day	7.8E-03
						Chromium III	3E+02	mg/kg	3.6E-05	mg/kg-day	N/A	N/A	N/A	4.2E-04	mg/kg-day	1.5E+00	mg/kg-day	2.8E-04
						Copper	2E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-02	mg/kg-day	8.6E-03
						Lead												
						Manganese	1E+03	mg/kg	1.5E-04	mg/kg-day	N/A	N/A	N/A	1.7E-03	mg/kg-day	7.0E-02	mg/kg-day	2.5E-02
						Mercury	2E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-04	mg/kg-day	2.6E-02
				Nickel	4E+01	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	2.0E-02	mg/kg-day	2.5E-03		
				Vanadium	6E+01	mg/kg	6.9E-06	mg/kg-day	N/A	N/A	N/A	8.0E-05	mg/kg-day	1.0E-03	mg/kg-day	8.0E-02		
				Zinc	7E+02	mg/kg	8.3E-05	mg/kg-day	N/A	N/A	N/A	9.7E-04	mg/kg-day	3.0E-01	mg/kg-day	3.2E-03		
			Exp. Route Total							3E-06					2E-01			
			Dermal															
			Arsenic	3E+01	mg/kg	6.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.3E-07	7.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.4E-02			
			Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02			
			Exp. Route Total							9E-07					4E-02			
			Exp. Point Total							4E-06					3E-01			

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units							
Sediment (cont.)	Sediment (cont.)	Station CB-01	Ingestion	Antimony	2E+00	mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	4.0E-04	mg/kg-day	9.7E-03				
				Arsenic	6E+01	mg/kg	9.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	7.3E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01				
				Barium	6E+01	mg/kg	9.6E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	7.0E-02	mg/kg-day	1.6E-03				
				Cadmium	9E+00	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.0E-03	mg/kg-day	1.8E-02				
				Chromium III	3E+02	mg/kg	5.4E-05	mg/kg-day	N/A	N/A	N/A	6.3E-04	mg/kg-day	1.5E+00	mg/kg-day	4.2E-04				
				Copper	7E+02	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	3.0E-02	mg/kg-day	4.7E-02				
				Lead																
				Manganese	7E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	7.0E-02	mg/kg-day	1.9E-02				
				Mercury	3E+00	mg/kg	4.8E-07	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	1.0E-04	mg/kg-day	5.6E-02				
				Nickel	2E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	2.0E-02	mg/kg-day	1.9E-03				
				Thallium	3E+00	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	8.0E-05	mg/kg-day	6.0E-02				
				Vanadium	8E+01	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	1.0E-03	mg/kg-day	1.5E-01				
				Zinc	6E+02	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-01	mg/kg-day	4.0E-03				
							Exp. Route Total							7E-06					6E-01	
						Dermal	Arsenic	6E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-06	1.8E-05	mg/kg-day	3.0E-04	mg/kg-day	6.2E-02	
							Cadmium	9E+00	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	9.9E-07	mg/kg-day	2.5E-05	mg/kg-day	3.9E-02	
							Exp. Route Total							2E-06				1E-01		
							Exposure Point Total							1E-05				7E-01		
					Station CB-02	Ingestion	Antimony	2E+00	mg/kg	2.9E-07	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03	
								Arsenic	4E+01	mg/kg	6.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	5.2E-06	7.9E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01
								Barium	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
								Cadmium	4E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03
								Chromium III	1E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.8E-04
								Copper	1E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.2E-03
								Lead												
								Manganese	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	7.0E-02	mg/kg-day	2.0E-03
								Mercury	3E-01	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	6.2E-07	mg/kg-day	1.0E-04	mg/kg-day	6.2E-03
			Nickel	1E+01			mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	2.0E-02	mg/kg-day	9.5E-04			
			Vanadium	3E+01			mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	6.1E-05	mg/kg-day	1.0E-03	mg/kg-day	6.1E-02			
			Zinc	3E+02			mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	6.0E-04	mg/kg-day	3.0E-01	mg/kg-day	2.0E-03			
				Exp. Route Total									5E-06				2E-01			
			Dermal	Arsenic			4E+01	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02		
				Cadmium		4E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.6E-02			
				Exp. Route Total								2E-06				6E-02				
				Exposure Point Total								7E-06				3E-01				

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion	Antimony	5E+00	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.2E-02				
				Arsenic	1E+02	mg/kg	2.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.8E-05	2.7E-04	mg/kg-day	5.9E-04	mg/kg-day	4.5E-01				
				Barium	5E+01	mg/kg	8.3E-06	mg/kg-day	N/A	N/A	N/A	9.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03				
				Cadmium	2E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	1.0E-03	mg/kg-day	3.3E-02				
				Chromium III	5E+02	mg/kg	8.1E-05	mg/kg-day	N/A	N/A	N/A	9.4E-04	mg/kg-day	1.5E+00	mg/kg-day	6.3E-04				
				Copper	2E+02	mg/kg	3.8E-05	mg/kg-day	N/A	N/A	N/A	4.5E-04	mg/kg-day	3.0E-02	mg/kg-day	1.5E-02				
				Lead																
				Manganese	9E+01	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	7.0E-02	mg/kg-day	2.5E-03				
				Mercury	3E-01	mg/kg	5.5E-08	mg/kg-day	N/A	N/A	N/A	6.4E-07	mg/kg-day	1.0E-04	mg/kg-day	6.4E-03				
				Nickel	3E+01	mg/kg	4.5E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	2.0E-02	mg/kg-day	2.6E-03				
				Thallium	4E+00	mg/kg	6.7E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	8.0E-05	mg/kg-day	9.8E-02				
				Vanadium	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.0E-03	mg/kg-day	1.4E-01				
				Zinc	2E+03	mg/kg	3.4E-04	mg/kg-day	N/A	N/A	N/A	3.9E-03	mg/kg-day	3.0E-01	mg/kg-day	1.3E-02				
				Chromium VI	6E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	3.0E-03	mg/kg-day	4.1E-04				
				Exp. Route Total									2E-05					8E-01		
							Dermal	Arsenic	1E+02	mg/kg	3.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.7E-06	4.5E-05	mg/kg-day	3.0E-04	mg/kg-day	1.5E-01
								Cadmium	2E+01	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	1.8E-06	mg/kg-day	2.5E-05	mg/kg-day	7.3E-02	
				Exp. Route Total										6E-06					2E-01	
				Exposure Point Total								2E-05					1E+00			
					Station CB-07	Ingestion	Arsenic	2E+02	mg/kg	8.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	6.6E-06	1.0E-04	mg/kg-day	5.9E-04	mg/kg-day	1.7E-01	
							Barium	6E+01	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	7.0E-02	mg/kg-day	3.8E-04	
							Cadmium	5E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03	
							Chromium III	7E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	1.5E+00	mg/kg-day	2.3E-04	
							Copper	4E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	3.0E-02	mg/kg-day	6.9E-03	
							Lead													
							Manganese	6E+02	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	3.1E-04	mg/kg-day	7.0E-02	mg/kg-day	4.4E-03	
							Mercury	1E+00	mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	6.1E-07	mg/kg-day	1.0E-04	mg/kg-day	6.1E-03	
							Nickel	2E+01	mg/kg	8.9E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	5.2E-04	
				Vanadium			9E+01	mg/kg	3.7E-06	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	1.0E-03	mg/kg-day	4.3E-02		
				Zinc			6E+02	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-01	mg/kg-day	9.8E-04		
Exp. Route Total													7E-06				2E-01			
			Dermal	Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.2E-06	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02				
				Cadmium	5E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03				
Exp. Route Total											2E-06				6E-02					
		Exposure Point Total									9E-06				3E-01					

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion	Benzo(a)anthracene	1E-01	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.8E-09	1.6E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E-01	mg/kg	1.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.2E-07	2.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	3E-01	mg/kg	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.3E-08	3.7E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.8E-10	1.4E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	7.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.3E-09	8.5E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	1E-01	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.3E-06				
				Antimony	6E+00	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	8.4E-06	mg/kg-day	4.0E-04	mg/kg-day	2.1E-02				
				Arsenic	2E+02	mg/kg	2.9E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.2E-05	3.4E-04	mg/kg-day	5.9E-04	mg/kg-day	5.7E-01				
				Barium	6E+01	mg/kg	7.6E-06	mg/kg-day	N/A	N/A	N/A	8.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03				
				Cadmium	6E+00	mg/kg	6.8E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.0E-03	mg/kg-day	8.0E-03				
				Chromium III	2E+03	mg/kg	2.7E-04	mg/kg-day	N/A	N/A	N/A	3.1E-03	mg/kg-day	1.5E+00	mg/kg-day	2.1E-03				
				Copper	4E+02	mg/kg	4.9E-05	mg/kg-day	N/A	N/A	N/A	5.7E-04	mg/kg-day	3.0E-02	mg/kg-day	1.9E-02				
				Lead																
				Manganese	8E+02	mg/kg	9.5E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	7.0E-02	mg/kg-day	1.6E-02				
				Mercury	3E+00	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.9E-06	mg/kg-day	1.0E-04	mg/kg-day	4.9E-02				
				Nickel	2E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	2.0E-02	mg/kg-day	1.1E-03				
				Vanadium	3E+01	mg/kg	3.7E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.0E-03	mg/kg-day	4.4E-02				
				Zinc	9E+02	mg/kg	1.1E-04	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	3.0E-01	mg/kg-day	4.4E-03				
				Chromium VI	3E+00	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	3.0E-03	mg/kg-day	1.4E-03				
				Exp. Route Total										2E-05					7E-01	
							Dermal	Benzo(a)anthracene	1E-01	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.1E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E-01	mg/kg	1.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.1E-08	1.5E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	3E-01	mg/kg	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-08	2.7E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	1E-01	mg/kg	8.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.4E-10	1.0E-07	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	5.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.9E-09	6.2E-08	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	1E-01	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.7E-06
								Arsenic	2E+02	mg/kg	4.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.3E-06	5.7E-05	mg/kg-day	3.0E-04	mg/kg-day	1.9E-01
								Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02
Exp. Route Total											7E-06					2E-01				
Exposure Point Total											3E-05					9E-01				

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion	Benzo(a)anthracene	5E-01	mg/kg	5.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.3E-08	6.8E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	5E-01	mg/kg	6.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.5E-07	7.2E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	1E+00	mg/kg	1.5E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.1E-08	1.7E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	8E-02	mg/kg	9.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.1E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.2E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	2E+00	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04				
				Antimony	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	3.6E-03				
				Arsenic	3E+01	mg/kg	4.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.3E-06	5.0E-05	mg/kg-day	5.9E-04	mg/kg-day	8.4E-02				
				Barium	3E+01	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	7.0E-02	mg/kg-day	6.8E-04				
				Cadmium	7E-01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-03	mg/kg-day	9.7E-04				
				Chromium III	6E+01	mg/kg	7.2E-06	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	1.5E+00	mg/kg-day	5.6E-05				
				Copper	6E+01	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	9.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.0E-03				
				Lead																
				Manganese	3E+03	mg/kg	3.2E-04	mg/kg-day	N/A	N/A	N/A	3.8E-03	mg/kg-day	7.0E-02	mg/kg-day	5.4E-02				
				Mercury	4E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-04	mg/kg-day	5.5E-03				
				Nickel	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.0E-02	mg/kg-day	6.9E-04				
				Thallium	1E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.8E-06	mg/kg-day	8.0E-05	mg/kg-day	2.3E-02				
				Vanadium	1E+01	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	1.0E-03	mg/kg-day	1.9E-02				
				Zinc	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03				
				Exp. Route Total											4E-06					2E-01
							Dermal	Benzo(a)anthracene	5E-01	mg/kg	4.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.1E-08	4.9E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	5E-01	mg/kg	4.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.3E-07	5.2E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.6E-08	1.4E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	7.8E-09	1.3E-06	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	8E-02	mg/kg	7.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.2E-08	8.3E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	2E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.0E-02	mg/kg-day	9.9E-05
				Arsenic	3E+01	mg/kg	7.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-06	8.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.8E-02				
				Cadmium	7E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03				
Exp. Route Total											2E-06					3E-02				
Exposure Point Total											6E-06					2E-01				

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion	Benzo(a)anthracene	7E-01	mg/kg	8.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.1E-08	9.7E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	9E-01	mg/kg	1.1E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.4E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	2E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-07	2.7E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	2E+00	mg/kg	2.4E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.8E-08	2.8E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	2E-01	mg/kg	2.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.4E-07	2.3E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	8.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.1E-08	9.7E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	6E-01	mg/kg	7.4E-08	mg/kg-day	N/A	N/A	N/A	8.7E-07	mg/kg-day	2.0E-02	mg/kg-day	4.3E-05				
				Antimony	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	4.0E-04	mg/kg-day	5.7E-03				
				Arsenic	3E+01	mg/kg	3.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.7E-06	4.1E-05	mg/kg-day	5.9E-04	mg/kg-day	7.0E-02				
				Barium	2E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	7.0E-02	mg/kg-day	4.3E-04				
				Chromium III	1E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.1E-04				
				Copper	1E+02	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	3.0E-02	mg/kg-day	6.3E-03				
				Lead																
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03				
				Mercury	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02				
				Nickel	2E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	2.0E-02	mg/kg-day	1.4E-03				
				Thallium	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	8.0E-05	mg/kg-day	3.0E-02				
				Vanadium	2E+01	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.0E-03	mg/kg-day	2.5E-02				
				Zinc	5E+02	mg/kg	6.6E-05	mg/kg-day	N/A	N/A	N/A	7.7E-04	mg/kg-day	3.0E-01	mg/kg-day	2.6E-03				
				Exp. Route Total										4E-06				2E-01		
							Dermal	Benzo(a)anthracene	7E-01	mg/kg	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.4E-08	7.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	9E-01	mg/kg	8.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.1E-07	9.7E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	2E+00	mg/kg	1.8E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.3E-08	2.1E-06	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	2E-01	mg/kg	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.0E-07	1.7E-07	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	7E-01	mg/kg	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.4E-08	7.1E-07	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	6E-01	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	6.3E-07	mg/kg-day	2.0E-02	mg/kg-day	3.2E-05
				Arsenic	3E+01	mg/kg	5.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.9E-07	6.9E-06	mg/kg-day	3.0E-04	mg/kg-day	2.3E-02				
Exp. Route Total											2E-06				2E-02					
Exposure Point Total											6E-06				2E-01					

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion	Trichloroethene	2E-02	mg/kg	2.7E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.1E-09	3.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.1E-04				
				Benzo(a)anthracene	6E+00	mg/kg	6.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.0E-07	8.0E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	6E+00	mg/kg	6.8E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.9E-06	7.9E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+01	mg/kg	1.2E-06	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.5E-07	1.4E-05	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	9E+00	mg/kg	1.1E-06	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.2E-08	1.3E-05	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	1E+00	mg/kg	1.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.7E-07	1.5E-06	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	4.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.4E-07	5.5E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	7E+00	mg/kg	8.3E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04				
				Aroclor 1260	7E-02	mg/kg	8.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.6E-08	9.5E-08	mg/kg-day	2.0E-05	mg/kg-day	4.7E-03				
				Antimony	2E+00	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	4.0E-04	mg/kg-day	8.3E-03				
				Arsenic	8E+01	mg/kg	9.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	7.5E-06	1.1E-04	mg/kg-day	5.9E-04	mg/kg-day	1.9E-01				
				Barium	8E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03				
				Cadmium	5E+00	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03				
				Chromium III	2E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04				
				Copper	2E+02	mg/kg	2.9E-05	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.1E-02				
				Lead																
				Manganese	4E+02	mg/kg	5.1E-05	mg/kg-day	N/A	N/A	N/A	5.9E-04	mg/kg-day	7.0E-02	mg/kg-day	8.5E-03				
				Mercury	3E+00	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	4.0E-06	mg/kg-day	1.0E-04	mg/kg-day	4.0E-02				
				Nickel	3E+01	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	2.0E-02	mg/kg-day	2.0E-03				
				Thallium	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	8.0E-05	mg/kg-day	3.9E-02				
				Vanadium	5E+01	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	7.4E-05	mg/kg-day	1.0E-03	mg/kg-day	7.4E-02				
				Zinc	1E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	1.9E-03	mg/kg-day	3.0E-01	mg/kg-day	6.4E-03				
				Exp. Route Total										2E-05					4E-01	
							Dermal	Benzo(a)anthracene	6E+00	mg/kg	5.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.6E-07	5.8E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	6E+00	mg/kg	4.9E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.6E-06	5.8E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+01	mg/kg	8.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.2E-07	9.9E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	9E+00	mg/kg	8.2E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.0E-08	9.5E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	9.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.0E-07	1.1E-06	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	3.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.5E-07	4.0E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	7E+00	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	7.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.5E-04				
				Aroclor 1260	7E-02	mg/kg	6.4E-09	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.3E-08	7.4E-08	mg/kg-day	2.0E-05	mg/kg-day	3.7E-03				
				Arsenic	8E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.5E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.4E-02				
				Cadmium	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.6E-02				
Exp. Route Total											8E-06				8E-02					
Exposure Point Total											2E-05				5E-01					

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion	Benzo(a)anthracene	2E+00	mg/kg	2.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-07	3.3E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	3E+00	mg/kg	3.1E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.2E-06	3.6E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	3E+00	mg/kg	3.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.7E-07	4.3E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	2E+00	mg/kg	2.3E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.7E-08	2.7E-06	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	1.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-07	1.7E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.6E-04				
				Antimony	2E+00	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	4.0E-04	mg/kg-day	6.4E-03				
				Arsenic	2E+01	mg/kg	3.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.3E-06	3.5E-05	mg/kg-day	5.9E-04	mg/kg-day	6.0E-02				
				Barium	4E+01	mg/kg	5.3E-06	mg/kg-day	N/A	N/A	N/A	6.2E-05	mg/kg-day	7.0E-02	mg/kg-day	8.8E-04				
				Cadmium	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03				
				Chromium III	1E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	1.5E+00	mg/kg-day	1.4E-04				
				Copper	8E+01	mg/kg	9.8E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	3.0E-02	mg/kg-day	3.8E-03				
				Lead																
				Manganese	1E+03	mg/kg	1.2E-04	mg/kg-day	N/A	N/A	N/A	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	1.9E-02				
				Mercury	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02				
				Nickel	1E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.0E-02	mg/kg-day	7.6E-04				
				Thallium	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	8.0E-05	mg/kg-day	1.7E-02				
				Vanadium	2E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-03	mg/kg-day	2.8E-02				
				Zinc	6E+02	mg/kg	7.0E-05	mg/kg-day	N/A	N/A	N/A	8.1E-04	mg/kg-day	3.0E-01	mg/kg-day	2.7E-03				
				Exp. Route Total										5E-06					2E-01	
							Dermal	Benzo(a)anthracene	2E+00	mg/kg	2.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-07	2.4E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	3E+00	mg/kg	2.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.6E-06	2.6E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	3E+00	mg/kg	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-07	3.1E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	2E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.2E-08	2.0E-06	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	1E+00	mg/kg	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.8E-08	1.2E-06	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04
								Arsenic	2E+01	mg/kg	5.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.6E-07	5.9E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02
				Cadmium	2E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.1E-03				
Exp. Route Total											3E-06				3E-02					
Exposure Point Total											8E-06				2E-01					

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion	Benzo(a)anthracene	1E+00	mg/kg	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.9E-07	1.4E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-07	2.0E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	6E-01	mg/kg	7.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.7E-09	9.1E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	1E-01	mg/kg	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.8E-08	1.6E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.5E-08	8.8E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	1E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.0E-02	mg/kg-day	7.1E-05				
				Aroclor 1260	1E-01	mg/kg	1.3E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.7E-08	1.6E-07	mg/kg-day	2.0E-05	mg/kg-day	7.8E-03				
				Antimony	2E+00	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	4.0E-04	mg/kg-day	6.1E-03				
				Arsenic	9E+01	mg/kg	1.1E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	8.1E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.1E-01				
				Barium	8E+01	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03				
				Cadmium	5E+00	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	7.4E-06	mg/kg-day	1.0E-03	mg/kg-day	7.4E-03				
				Chromium III	2E+02	mg/kg	2.4E-05	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04				
				Copper	2E+02	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	3.0E-02	mg/kg-day	8.1E-03				
				Lead																
				Manganese	5E+02	mg/kg	6.1E-05	mg/kg-day	N/A	N/A	N/A	7.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.0E-02				
				Mercury	7E-01	mg/kg	8.7E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02				
				Nickel	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	2.0E-02	mg/kg-day	1.9E-03				
				Vanadium	5E+01	mg/kg	6.0E-06	mg/kg-day	N/A	N/A	N/A	7.0E-05	mg/kg-day	1.0E-03	mg/kg-day	7.0E-02				
				Zinc	1E+03	mg/kg	1.7E-04	mg/kg-day	N/A	N/A	N/A	2.0E-03	mg/kg-day	3.0E-01	mg/kg-day	6.7E-03				
				Exp. Route Total										9E-06					3E-01	
							Dermal	Benzo(a)anthracene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.4E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E+00	mg/kg	8.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.5E-07	1.0E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.1E-08	1.5E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	6E-01	mg/kg	5.7E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.2E-09	6.6E-07	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	1E-01	mg/kg	9.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.1E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	6E-01	mg/kg	5.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.0E-08	6.4E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	1E+00	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.0E-02	mg/kg-day	5.2E-05				
				Aroclor 1260	1E-01	mg/kg	1.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.1E-08	1.2E-07	mg/kg-day	2.0E-05	mg/kg-day	6.1E-03				
				Arsenic	9E+01	mg/kg	1.8E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-06	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	6.9E-02				
				Cadmium	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.7E-02				
Exp. Route Total											4E-06					9E-02				
Exposure Point Total											1E-05					4E-01				

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations							
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient			
							Value	Units	Value	Units		Value	Units	Value	Units				
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion	Benzo(a)anthracene	3E-01	mg/kg	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.2E-08	3.6E-07	mg/kg-day	N/A	N/A	N/A			
				Benzo(a)pyrene	2E-01	mg/kg	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.9E-07	3.0E-07	mg/kg-day	N/A	N/A	N/A			
				Benzo(b)fluoranthene	2E-01	mg/kg	2.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A			
				Benzo(k)fluoranthene	2E-01	mg/kg	2.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.9E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A			
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-08	1.7E-07	mg/kg-day	N/A	N/A	N/A			
				Phenanthrene	5E-01	mg/kg	5.7E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	2.0E-02	mg/kg-day	3.3E-05			
				Antimony	9E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	4.0E-04	mg/kg-day	3.1E-03			
				Arsenic	6E+00	mg/kg	7.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	5.8E-07	8.8E-06	mg/kg-day	5.9E-04	mg/kg-day	1.5E-02			
				Barium	1E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	7.0E-02	mg/kg-day	2.5E-04			
				Cadmium	2E-01	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-03	mg/kg-day	2.4E-04			
				Chromium III	1E+01	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.5E+00	mg/kg-day	9.3E-06			
				Copper	2E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-02	mg/kg-day	7.9E-04			
				Lead															
				Manganese	1E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	2.1E-03			
				Nickel	7E+00	mg/kg	8.8E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	5.1E-04			
				Thallium	5E-01	mg/kg	6.3E-08	mg/kg-day	N/A	N/A	N/A	7.4E-07	mg/kg-day	8.0E-05	mg/kg-day	9.2E-03			
				Vanadium	1E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	1.0E-03	mg/kg-day	1.7E-02			
			Zinc	2E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.3E-04				
						Exp. Route Total							8E-07				5E-02		
						Dermal	Benzo(a)anthracene	3E-01	mg/kg	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(a)pyrene	2E-01	mg/kg	1.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.4E-07	2.2E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(b)fluoranthene	2E-01	mg/kg	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-08	1.8E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(k)fluoranthene	2E-01	mg/kg	1.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.4E-09	2.2E-07	mg/kg-day	N/A	N/A	N/A
							Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.8E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
							Phenanthrene	5E-01	mg/kg	4.1E-08	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.4E-05
							Arsenic	6E+00	mg/kg	1.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-07	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	4.9E-03
						Cadmium	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	1.3E-08	mg/kg-day	2.5E-05	mg/kg-day	5.3E-04	
			Exp. Route Total							4E-07				5E-03					
		Exposure Point Total								1E-06				5E-02					
	Exposure Medium Total									N/A				N/A					

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Soil	Surface Soil	Station NR	Ingestion	Arsenic	2E+02	mg/kg	1.6E-05	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-05	1.9E-04	mg/kg-day	3.0E-04	mg/kg-day	6.4E-01		
				Cadmium	2E+00	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03		
				Chromium VI	2E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-03	mg/kg-day	5.4E-02		
				Copper	2E+02	mg/kg	1.4E-05	mg/kg-day	N/A	N/A	N/A	1.6E-04	mg/kg-day	3.0E-02	mg/kg-day	5.4E-03		
				Manganese	8E+02	mg/kg	6.8E-05	mg/kg-day	N/A	N/A	N/A	7.9E-04	mg/kg-day	7.0E-02	mg/kg-day	1.1E-02		
				Mercury	2E+00	mg/kg	1.6E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	1.0E-04	mg/kg-day	1.9E-02		
				Vanadium	3E+01	mg/kg	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	1.0E-03	mg/kg-day	2.4E-02		
				Zinc	5E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	5.0E-04	mg/kg-day	3.0E-01	mg/kg-day	1.7E-03		
				Exp. Route Total								2E-05						8E-01
				Dermal	Arsenic	2E+02	mg/kg	2.7E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.1E-06	3.2E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01	
		Cadmium	2E+00		mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.5E-03			
		Exp. Route Total								4E-06					1E-01			
		Exposure Point Total								3E-05						9E-01		
		Station WS/WSS	Ingestion	Arsenic	1E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.3E-02		
				Cadmium	4E-01	mg/kg	6.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-03	mg/kg-day	7.0E-04		
				Chromium VI	2E+01	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	3.0E-03	mg/kg-day	1.2E-02		
				Copper	3E+01	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	6.4E-05	mg/kg-day	3.0E-02	mg/kg-day	2.1E-03		
				Manganese	2E+02	mg/kg	3.1E-05	mg/kg-day	N/A	N/A	N/A	3.6E-04	mg/kg-day	7.0E-02	mg/kg-day	5.1E-03		
				Mercury	1E-01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	1.0E-04	mg/kg-day	2.2E-03		
				Thallium	1E+00	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	8.0E-05	mg/kg-day	2.8E-02		
				Vanadium	2E+01	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	1.0E-03	mg/kg-day	4.5E-02		
				Zinc	7E+01	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.5E-04		
				Exp. Route Total							2E-06						2E-01	
				Dermal	Arsenic	1E+01	mg/kg	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.1E-07	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02	
					Cadmium	4E-01	mg/kg	3.4E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	2.5E-05	mg/kg-day	1.6E-03	
					Exp. Route Total							4E-07					1E-02	
Exposure Point Total										3E-06						2E-01		

TABLE 3-7.4.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion	Arsenic	6E+01	mg/kg	9.7E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.5E-05	1.1E-04	mg/kg-day	3.0E-04	mg/kg-day	3.8E-01
				Cadmium	7E-01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03
				Chromium VI	1E+02	mg/kg	2.2E-05	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-03	mg/kg-day	8.7E-02
				Copper	5E+01	mg/kg	8.2E-06	mg/kg-day	N/A	N/A	N/A	9.6E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03
				Manganese	2E+02	mg/kg	3.7E-05	mg/kg-day	N/A	N/A	N/A	4.3E-04	mg/kg-day	7.0E-02	mg/kg-day	6.1E-03
				Mercury	3E-01	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	1.0E-04	mg/kg-day	5.5E-03
				Thallium	2E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	8.0E-05	mg/kg-day	3.9E-02
				Vanadium	3E+01	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	1.0E-03	mg/kg-day	4.9E-02
				Zinc	2E+02	mg/kg	2.7E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03
				Exp. Route Total								1E-05				
		Dermal	Arsenic	6E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.5E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.4E-02	
			Cadmium	7E-01	mg/kg	6.2E-09	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	2.5E-05	mg/kg-day	2.9E-03	
		Exp. Route Total								2E-06					7E-02	
		Exposure Point Total									2E-05					6E-01
		Station DA	Ingestion	Arsenic	2E+02	mg/kg	2.4E-05	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.6E-05	2.8E-04	mg/kg-day	3.0E-04	mg/kg-day	9.3E-01
				Cadmium	5E+00	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	6.6E-06	mg/kg-day	1.0E-03	mg/kg-day	6.6E-03
				Chromium VI	4E+02	mg/kg	4.8E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-03	mg/kg-day	1.9E-01
				Copper	2E+02	mg/kg	3.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	3.0E-02	mg/kg-day	1.2E-02
				Manganese	3E+03	mg/kg	3.5E-04	mg/kg-day	N/A	N/A	N/A	4.1E-03	mg/kg-day	7.0E-02	mg/kg-day	5.8E-02
				Mercury	3E+00	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	1.0E-04	mg/kg-day	4.8E-02
				Thallium	3E+00	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	8.0E-05	mg/kg-day	5.9E-02
				Vanadium	4E+01	mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	5.4E-05	mg/kg-day	1.0E-03	mg/kg-day	5.4E-02
				Zinc	6E+02	mg/kg	7.2E-05	mg/kg-day	N/A	N/A	N/A	8.4E-04	mg/kg-day	3.0E-01	mg/kg-day	2.8E-03
Exp. Route Total										4E-05					1E+00	
Dermal	Arsenic			2E+02	mg/kg	4.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.0E-06	4.7E-05	mg/kg-day	3.0E-04	mg/kg-day	1.6E-01	
	Cadmium			5E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	2.5E-05	mg/kg-day	1.5E-02	
Exp. Route Total										6E-06					2E-01	
Exposure Point Total									4E-05					2E+00		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water	Surface Water	Station NR (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05	
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02	
				Lead													
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04	
			Exp. Route Total								1E-08					1E-02	
			Exposure Point Total								1E-08						1E-02
			Station 14 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
		Arsenic			5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
		Cadmium			4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
		Chromium VI			6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02	
		Lead															
		Manganese			6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
		Mercury			6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04	
			Exp. Route Total								1E-08					1E-02	
			Exposure Point Total								1E-08						1E-02
			Station 22/TT-22 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
		Arsenic			5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
		Cadmium			4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
Chromium VI	6E+01	ug/L			2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02			
Lead																	
Manganese	6E+02	ug/L			1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03			
Mercury	6E-01	ug/L			1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04			
	Exp. Route Total								1E-08					1E-02			
	Exposure Point Total								1E-08						1E-02		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station 13/TT-27 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05	
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02	
				Lead													
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04	
			Exp. Route Total								1E-08					1E-02	
			Exposure Point Total								1E-08						1E-02
			Station WH (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
		Arsenic			5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
		Cadmium			4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
		Chromium VI			6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02	
		Lead															
		Manganese			6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
		Mercury			6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04	
			Exp. Route Total								1E-08					1E-02	
			Exposure Point Total								1E-08						1E-02
			Station NT-1 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
		Arsenic			5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
		Cadmium			4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
		Chromium VI			6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02	
		Lead															
		Manganese			6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
Mercury	6E-01	ug/L			1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04			
	Exp. Route Total								1E-08					1E-02			
	Exposure Point Total								1E-08						1E-02		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water (cont.)	Surface Water (cont.)	Station NT-2 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05		
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03		
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04		
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02		
				Lead														
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03		
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04		
			Exp. Route Total								1E-08					1E-02		
			Exposure Point Total								1E-08						1E-02	
				Station NT-3 (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
						Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
						Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
						Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
						Lead												
						Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03
						Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04
					Exp. Route Total							1E-08					1E-02	
					Exposure Point Total							1E-08					1E-02	
				Station WG (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
						Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
						Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04
		Chromium VI	6E+01			ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02		
		Lead																
		Manganese	6E+02			ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03		
		Mercury	6E-01			ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04		
			Exp. Route Total							1E-08					1E-02			
			Exposure Point Total							1E-08					1E-02			

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station WW (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05	
				Arsenic	5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
				Cadmium	4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
				Chromium VI	6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02	
				Lead													
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
				Mercury	6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04	
			Exp. Route Total								1E-08					1E-02	
			Exposure Point Total								1E-08						1E-02
			Station JY (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	3.5E-11	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	3.2E-10	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	9.4E-05
		Arsenic			5E+01	ug/L	8.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
		Cadmium			4E-01	ug/L	8.2E-11	mg/kg-day	N/A	N/A	N/A	2.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.1E-04	
		Chromium VI			6E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02	
		Lead															
		Manganese			6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
		Mercury			6E-01	ug/L	1.2E-10	mg/kg-day	N/A	N/A	N/A	4.1E-09	mg/kg-day	2.1E-05	mg/kg-day	1.9E-04	
			Exp. Route Total								1E-08					1E-02	
			Exposure Point Total								1E-08						1E-02
			Station WS/WSS (Reach 1)	Dermal	Heptachlor epoxide	2E-03	ug/L	1.0E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	9.5E-10	3.7E-09	mg/kg-day	1.3E-05	mg/kg-day	2.8E-04
		Arsenic			5E+01	ug/L	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.0E-08	9.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03	
		Cadmium			4E-01	ug/L	2.5E-10	mg/kg-day	N/A	N/A	N/A	8.6E-09	mg/kg-day	2.5E-05	mg/kg-day	3.4E-04	
		Chromium VI			6E+01	ug/L	6.7E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	7.5E-05	mg/kg-day	3.1E-02	
		Lead															
		Manganese			6E+02	ug/L	3.3E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	4.1E-03	
Mercury	6E-01	ug/L			3.5E-10	mg/kg-day	N/A	N/A	N/A	1.2E-08	mg/kg-day	2.1E-05	mg/kg-day	5.8E-04			
	Exp. Route Total								4E-08					4E-02			
	Exposure Point Total								4E-08						4E-02		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station TT-30 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03	
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04	
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05	
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03	
				Lead													
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03	
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05	
			Exp. Route Total								1E-08					5E-03	
			Exposure Point Total								1E-08						5E-03
			Station TT-31 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
		Arsenic			2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04	
		Cadmium			2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05	
		Chromium VI			8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03	
		Lead															
		Manganese			7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03	
		Mercury			1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05	
			Exp. Route Total								1E-08					5E-03	
			Exposure Point Total								1E-08						5E-03
			Station CB-01 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
		Arsenic			2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03	
		Cadmium			2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04	
Chromium VI	8E+00	ug/L			9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03			
Lead																	
Manganese	7E+02	ug/L			4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03			
Mercury	1E-01	ug/L			7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04			
	Exp. Route Total								3E-08					2E-02			
	Exposure Point Total								3E-08						2E-02		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water (cont.)	Surface Water (cont.)	Station CB-02 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03		
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03		
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04		
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03		
				Lead														
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03		
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04		
			Exp. Route Total								3E-08					2E-02		
			Exposure Point Total								3E-08					2E-02		
				Station CB-03 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
						Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
						Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
						Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
						Lead												
						Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
						Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
					Exp. Route Total							3E-08					2E-02	
					Exposure Point Total							3E-08					2E-02	
				Station CB-04 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
						Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
						Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
						Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
						Lead												
						Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03
		Mercury	1E-01			ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04		
			Exp. Route Total							3E-08					2E-02			
			Exposure Point Total							3E-08					2E-02			

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water (cont.)	Surface Water (cont.)	Station CB-06 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	4.1E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.6E-08	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03		
				Arsenic	2E+01	ug/L	8.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-08	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03		
				Cadmium	2E-01	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04		
				Chromium VI	8E+00	ug/L	9.3E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03		
				Lead														
				Manganese	7E+02	ug/L	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	2.8E-03	mg/kg-day	5.1E-03		
				Mercury	1E-01	ug/L	7.1E-11	mg/kg-day	N/A	N/A	N/A	2.5E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04		
			Exp. Route Total								3E-08					2E-02		
			Exposure Point Total								3E-08						2E-02	
				Station CB-07 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
						Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
						Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
						Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
						Lead												
						Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03
						Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05
				Exp. Route Total								1E-08					5E-03	
				Exposure Point Total								1E-08					5E-03	
				Station 16/TT-33 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
						Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
						Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05
		Chromium VI	8E+00			ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03		
		Lead																
		Manganese	7E+02			ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03		
		Mercury	1E-01			ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05		
		Exp. Route Total								1E-08					5E-03			
		Exposure Point Total								1E-08					5E-03			

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station O9 (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03	
				Arsenic	2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04	
				Cadmium	2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05	
				Chromium VI	8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03	
				Lead													
				Manganese	7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03	
				Mercury	1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05	
			Exp. Route Total								1E-08					5E-03	
			Exposure Point Total								1E-08						5E-03
			Station DA (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
		Arsenic			2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04	
		Cadmium			2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05	
		Chromium VI			8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03	
		Lead															
		Manganese			7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03	
		Mercury			1E-01	ug/L	2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05	
			Exp. Route Total								1E-08					5E-03	
			Exposure Point Total								1E-08						5E-03
			Station AM (Upper Reach 2)	Dermal	Trichloroethene	2E+00	ug/L	1.4E-08	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.5E-09	4.8E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
		Arsenic			2E+01	ug/L	3.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04	
		Cadmium			2E-01	ug/L	4.4E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.5E-05	mg/kg-day	6.1E-05	
		Chromium VI			8E+00	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03	
		Lead															
		Manganese			7E+02	ug/L	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.7E-06	mg/kg-day	2.8E-03	mg/kg-day	1.7E-03	
Mercury	1E-01	ug/L			2.4E-11	mg/kg-day	N/A	N/A	N/A	8.2E-10	mg/kg-day	2.1E-05	mg/kg-day	3.9E-05			
	Exp. Route Total								1E-08					5E-03			
	Exposure Point Total								1E-08						5E-03		
	Station KF (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04		
Chromium VI			2E+00	ug/L	8.4E-10	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04			
Manganese			4E+02	ug/L	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.8E-03	mg/kg-day	8.5E-04			
			Exp. Route Total								2E-09				1E-03		
	Exposure Point Total								2E-09					1E-03			

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Surface Water (cont.)	Surface Water (cont.)	Station 08 (Lower Reach 2)	Dermal	Arsenic	7E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04				
				Chromium VI	2E+00	ug/L	8.4E-10	mg/kg-day	N/A	N/A	N/A	2.9E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04				
				Manganese	4E+02	ug/L	6.8E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.8E-03	mg/kg-day	8.5E-04				
				Exp. Route Total														2E-09	1E-03	
		Exposure Point Total																	2E-09	1E-03
		Station 07/DP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04				
				Lead																
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03				
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05				
		Exp. Route Total																	N/A	2E-03
		Exposure Point Total																	N/A	2E-03
		Station LP (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04				
				Lead																
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03				
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05				
		Exp. Route Total																	N/A	2E-03
		Exposure Point Total																	N/A	2E-03
		Station AS (Reach 3)	Dermal	Chromium VI	3E+00	ug/L	1.2E-09	mg/kg-day	N/A	N/A	N/A	4.1E-08	mg/kg-day	7.5E-05	mg/kg-day	5.5E-04				
				Lead																
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03				
				Mercury	2E-01	ug/L	4.2E-11	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.0E-05				
		Exp. Route Total																	N/A	2E-03
		Exposure Point Total																	N/A	2E-03
		Station 06 (Reach 4)	Dermal	Chromium VI	4E+00	ug/L	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.7E-08	mg/kg-day	7.5E-05	mg/kg-day	7.6E-04				
Lead																				
Manganese	5E+02			ug/L	9.6E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03						
Exp. Route Total																		N/A	2E-03	
Exposure Point Total																	N/A	2E-03		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Surface Water (cont.)	Station 05 (Reach 5)	Dermal	Chloroform	1E+00	ug/L	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-02	mg/kg-day	1.2E-05
				Tetrachloroethene	2E+00	ug/L	4.6E-08	mg/kg-day	5.4E-01	(mg/kg-day) ⁻¹	2.5E-08	1.6E-06	mg/kg-day	1.0E-02	mg/kg-day	1.6E-04
				Chromium VI	9E-01	ug/L	3.2E-10	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	7.5E-05	mg/kg-day	1.5E-04
				Manganese	3E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.6E-04
				Exp. Route Total								2E-08				
		Exposure Point Total								2E-08						1E-03
		Station 04 (Upper Reach 6)	Dermal	Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
		Exp. Route Total								1E-09					9E-04	
		Exposure Point Total								1E-09						9E-04
		Station 03 (Upper Reach 6)	Dermal	Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
				Mercury	7E-02	ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05
		Exp. Route Total								1E-09					9E-04	
		Exposure Point Total								1E-09						9E-04
		Station 02 (Upper Reach 6)	Dermal	Arsenic	4E+00	ug/L	7.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-09	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.3E-05
				Chromium VI	2E+00	ug/L	6.5E-10	mg/kg-day	N/A	N/A	N/A	2.3E-08	mg/kg-day	7.5E-05	mg/kg-day	3.1E-04
				Lead												
				Manganese	2E+02	ug/L	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.8E-03	mg/kg-day	5.0E-04
Mercury	7E-02			ug/L	1.3E-11	mg/kg-day	N/A	N/A	N/A	4.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.2E-05		
Exp. Route Total								1E-09					9E-04			
Exposure Point Total								1E-09						9E-04		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Surface Water (cont.)	Station 01 (Lower Reach 6)	Ingestion	Arsenic	3E+00	ug/L	2.0E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.0E-09	7.1E-08	mg/kg-day	3.0E-04	mg/kg-day	2.4E-04	
				Chromium VI	2E+00	ug/L	9.8E-10	mg/kg-day	N/A	N/A	N/A	3.4E-08	mg/kg-day	3.0E-03	mg/kg-day	1.1E-05	
				Lead													
				Manganese	7E+01	ug/L	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	7.0E-02	mg/kg-day	2.3E-05	
				Mercury	4E-02	ug/L	2.6E-11	mg/kg-day	N/A	N/A	N/A	9.1E-10	mg/kg-day	3.0E-04	mg/kg-day	3.0E-06	
			Exp. Route Total								3E-09					3E-04	
			Dermal	Arsenic	3E+00	ug/L	2.7E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.0E-10	9.3E-09	mg/kg-day	3.0E-04	mg/kg-day	3.1E-05	
				Chromium VI	2E+00	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	9.0E-09	mg/kg-day	7.5E-05	mg/kg-day	1.2E-04	
				Lead													
				Manganese	7E+01	ug/L	6.1E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	2.8E-03	mg/kg-day	7.6E-05	
				Mercury	4E-02	ug/L	3.4E-12	mg/kg-day	N/A	N/A	N/A	1.2E-10	mg/kg-day	2.1E-05	mg/kg-day	5.7E-06	
			Exp. Route Total								4E-10					2E-04	
			Exposure Point Total								3E-09						5E-04
			Exposure Medium Total								N/A						N/A
			Sediment	Sediment	Station NR	Ingestion	Arsenic	2E+02	mg/kg	1.5E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.1E-06	5.1E-05	mg/kg-day	5.9E-04
Barium	6E+01	mg/kg					3.8E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04	
Cadmium	2E+00	mg/kg					1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-03	mg/kg-day	5.2E-04	
Chromium III	3E+02	mg/kg					1.7E-06	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	1.5E+00	mg/kg-day	4.0E-05	
Copper	3E+02	mg/kg					2.1E-06	mg/kg-day	N/A	N/A	N/A	7.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.4E-03	
Lead																	
Manganese	2E+02	mg/kg					1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	7.0E-02	mg/kg-day	8.4E-04	
Mercury	4E+00	mg/kg					3.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	1.0E-04	mg/kg-day	1.1E-02	
Nickel	1E+01	mg/kg					9.5E-08	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.7E-04	
Vanadium	3E+01	mg/kg					2.1E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03	
Zinc	5E+02	mg/kg					3.3E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	3.8E-04	
Exp. Route Total												1E-06					1E-01
Dermal	Arsenic	2E+02				mg/kg	4.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.3E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.7E-02	
	Cadmium	2E+00				mg/kg	1.7E-09	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03	
	Exp. Route Total										7E-07					6E-02	
Exposure Point Total								2E-06					2E-01				

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations							
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient			
							Value	Units	Value	Units		Value	Units	Value	Units				
Sediment (cont.)	Sediment (cont.)	Station 14	Ingestion	Benzo(a)anthracene	1E+00	mg/kg	6.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.8E-09	2.3E-07	mg/kg-day	N/A	N/A	N/A			
				Benzo(a)pyrene	9E-01	mg/kg	6.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.4E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A			
				Benzo(b)fluoranthene	1E+00	mg/kg	9.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.1E-09	3.4E-07	mg/kg-day	N/A	N/A	N/A			
				Benzo(k)fluoranthene	1E+00	mg/kg	7.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.4E-10	2.6E-07	mg/kg-day	N/A	N/A	N/A			
				Phenanthrene	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05			
				Antimony	9E-01	mg/kg	6.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	4.0E-04	mg/kg-day	5.4E-04			
				Arsenic	6E+01	mg/kg	4.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.2E-07	1.5E-05	mg/kg-day	5.9E-04	mg/kg-day	2.5E-02			
				Barium	2E+01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	7.0E-02	mg/kg-day	5.4E-05			
				Cadmium	6E-01	mg/kg	4.4E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	1.0E-03	mg/kg-day	1.5E-04			
				Chromium III	1E+02	mg/kg	7.1E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.6E-05			
				Copper	6E+01	mg/kg	3.9E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	3.0E-02	mg/kg-day	4.5E-04			
				Lead															
				Manganese	1E+02	mg/kg	9.0E-07	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	7.0E-02	mg/kg-day	4.5E-04			
				Mercury	6E-01	mg/kg	4.0E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	1.0E-04	mg/kg-day	1.4E-03			
				Nickel	7E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.0E-02	mg/kg-day	8.7E-05			
				Thallium	5E-01	mg/kg	3.3E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	8.0E-05	mg/kg-day	1.5E-03			
				Vanadium	1E+01	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-03	mg/kg-day	2.7E-03			
			Zinc	2E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.2E-05	mg/kg-day	3.0E-01	mg/kg-day	1.7E-04				
			Exp. Route Total										4E-07					3E-02	
						Dermal	Benzo(a)anthracene	1E+00	mg/kg	9.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.0E-09	3.3E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(a)pyrene	9E-01	mg/kg	8.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.4E-08	3.1E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(b)fluoranthene	1E+00	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.0E-08	5.0E-07	mg/kg-day	N/A	N/A	N/A
							Benzo(k)fluoranthene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	7.9E-10	3.8E-07	mg/kg-day	N/A	N/A	N/A
							Phenanthrene	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
							Arsenic	6E+01	mg/kg	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-07	4.9E-06	mg/kg-day	3.0E-04	mg/kg-day	1.6E-02
							Cadmium	6E-01	mg/kg	4.9E-10	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	2.5E-05	mg/kg-day	6.8E-04
			Exp. Route Total										3E-07					2E-02	
Exposure Point Total										7E-07					5E-02				

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 22/TT-22	Ingestion	Tetrachloroethene	3E+00	mg/kg	1.9E-08	mg/kg-day	5.4E-01	(mg/kg-day) ⁻¹	1.0E-08	6.6E-07	mg/kg-day	1.0E-02	mg/kg-day	6.6E-05				
				Trichloroethene	7E-01	mg/kg	4.7E-09	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.9E-09	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	5.5E-04				
				Benzo(a)anthracene	3E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.5E-09	7.1E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	2E-01	mg/kg	1.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.9E-09	4.7E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	4E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-09	9.3E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.1E-10	1.0E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	4E-02	mg/kg	3.0E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.2E-09	1.0E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.1E-09	5.2E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	4E-01	mg/kg	2.7E-09	mg/kg-day	N/A	N/A	N/A	9.5E-08	mg/kg-day	2.0E-02	mg/kg-day	4.7E-06				
				Aroclor 1260	3E-02	mg/kg	2.0E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.0E-10	6.9E-09	mg/kg-day	2.0E-05	mg/kg-day	3.4E-04				
				Antimony	7E+01	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	4.0E-04	mg/kg-day	4.1E-02				
				Arsenic	8E+01	mg/kg	5.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	4.0E-07	1.8E-05	mg/kg-day	5.9E-04	mg/kg-day	3.1E-02				
				Barium	5E+01	mg/kg	3.4E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.7E-04				
				Cadmium	1E+00	mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	1.0E-03	mg/kg-day	3.4E-04				
				Chromium III	6E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.5E+00	mg/kg-day	1.0E-05				
				Copper	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	7.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.3E-04				
				Lead																
				Manganese	1E+02	mg/kg	7.9E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	7.0E-02	mg/kg-day	4.0E-04				
				Mercury	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03				
				Nickel	1E+01	mg/kg	7.7E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.3E-04				
				Vanadium	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	1.0E-03	mg/kg-day	9.6E-03				
				Zinc	1E+02	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	3.0E-01	mg/kg-day	7.6E-05				
				Exp. Route Total										4E-07					9E-02	
							Dermal	Benzo(a)anthracene	3E-01	mg/kg	3.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.2E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	2E-01	mg/kg	2.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.4E-08	6.9E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	4E-01	mg/kg	3.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.0E-10	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	4E-02	mg/kg	4.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.2E-09	1.5E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	2.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-09	7.6E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	4E-01	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	6.9E-06				
				Aroclor 1260	3E-02	mg/kg	3.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	3.1E-10	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	5.4E-04				
				Arsenic	8E+01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.6E-07	6.2E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02				
				Cadmium	1E+00	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.5E-05	mg/kg-day	1.5E-03				
Exp. Route Total											3E-07					2E-02				
Exposure Point Total											7E-07					1E-01				

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 13/TT-27	Ingestion	Trichloroethene	2E-02	mg/kg	1.5E-10	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	5.9E-11	5.2E-09	mg/kg-day	3.0E-04	mg/kg-day	1.7E-05				
				Benzo(a)anthracene	1E+00	mg/kg	8.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.3E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E+00	mg/kg	9.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.7E-08	3.2E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	3E+00	mg/kg	1.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.3E-08	6.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	2E+00	mg/kg	1.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.1E-09	5.4E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.6E-08	7.4E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	6.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.4E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	2E+00	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	4.0E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05				
				Aroclor 1254	2E-02	mg/kg	1.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.1E-10	3.8E-09	mg/kg-day	2.0E-05	mg/kg-day	1.9E-04				
				Aroclor 1260	2E-01	mg/kg	1.1E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.1E-09	3.9E-08	mg/kg-day	2.0E-05	mg/kg-day	1.9E-03				
				Antimony	1E+01	mg/kg	8.9E-08	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	4.0E-04	mg/kg-day	7.8E-03				
				Arsenic	4E+03	mg/kg	2.5E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.9E-05	8.6E-04	mg/kg-day	5.9E-04	mg/kg-day	1.5E+00				
				Barium	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	7.0E-02	mg/kg-day	8.2E-04				
				Cadmium	9E+00	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.0E-03	mg/kg-day	2.2E-03				
				Chromium III	6E+02	mg/kg	3.8E-06	mg/kg-day	N/A	N/A	N/A	1.3E-04	mg/kg-day	1.5E+00	mg/kg-day	8.9E-05				
				Copper	2E+03	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.9E-04	mg/kg-day	3.0E-02	mg/kg-day	1.3E-02				
				Lead																
				Manganese	8E+02	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	7.0E-02	mg/kg-day	2.6E-03				
				Mercury	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-04	mg/kg-day	1.2E-02				
				Nickel	3E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.0E-02	mg/kg-day	3.8E-04				
				Thallium	1E+00	mg/kg	7.5E-09	mg/kg-day	N/A	N/A	N/A	2.6E-07	mg/kg-day	8.0E-05	mg/kg-day	3.3E-03				
				Vanadium	9E+01	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-03	mg/kg-day	2.1E-02				
				Zinc	2E+03	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.3E-04	mg/kg-day	3.0E-01	mg/kg-day	1.8E-03				
				Exp. Route Total										2E-05					2E+00	
							Dermal	Benzo(a)anthracene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.2E-09	4.4E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.7E-08	4.7E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	3E+00	mg/kg	2.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-08	8.9E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	2E+00	mg/kg	2.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.6E-09	7.8E-07	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	3E-01	mg/kg	3.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.3E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	9E-01	mg/kg	8.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.3E-09	3.0E-07	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	2E+00	mg/kg	1.7E-08	mg/kg-day	N/A	N/A	N/A	5.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.9E-05
								Aroclor 1254	2E-02	mg/kg	1.7E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.7E-10	6.0E-09	mg/kg-day	2.0E-05	mg/kg-day	3.0E-04
								Aroclor 1260	2E-01	mg/kg	1.7E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.7E-09	6.1E-08	mg/kg-day	2.0E-05	mg/kg-day	3.0E-03
				Arsenic	4E+03	mg/kg	8.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-05	2.9E-04	mg/kg-day	3.0E-04	mg/kg-day	9.7E-01				
				Cadmium	9E+00	mg/kg	7.1E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.0E-02				
Exp. Route Total											1E-05				1E+00					
Exposure Point Total											3E-05				3E+00					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station WH	Ingestion	Trichloroethene	5E-02	mg/kg	3.6E-10	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.4E-10	1.3E-08	mg/kg-day	3.0E-04	mg/kg-day	4.2E-05				
				Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E+00	mg/kg	6.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.0E-08	2.4E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	9E-01	mg/kg	6.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.5E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	7E-01	mg/kg	4.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.4E-10	1.6E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	2.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.5E-08	7.4E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.6E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	2.0E-02	mg/kg-day	5.2E-06				
				Aroclor 1260	4E-02	mg/kg	2.8E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.8E-10	9.8E-09	mg/kg-day	2.0E-05	mg/kg-day	4.9E-04				
				Antimony	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.3E-06	mg/kg-day	4.0E-04	mg/kg-day	2.1E-02				
				Arsenic	2E+03	mg/kg	1.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.0E-05	4.5E-04	mg/kg-day	5.9E-04	mg/kg-day	7.7E-01				
				Barium	9E+01	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.1E-04				
				Cadmium	1E+01	mg/kg	7.3E-08	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	1.0E-03	mg/kg-day	2.6E-03				
				Chromium III	1E+03	mg/kg	8.0E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04				
				Copper	1E+03	mg/kg	8.1E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-02	mg/kg-day	9.4E-03				
				Lead																
				Manganese	5E+02	mg/kg	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	1.7E-03				
				Mercury	3E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	1.0E-04	mg/kg-day	6.5E-02				
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.6E-06	mg/kg-day	2.0E-02	mg/kg-day	4.8E-04				
				Thallium	8E-01	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	8.0E-05	mg/kg-day	2.3E-03				
				Vanadium	1E+02	mg/kg	6.6E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	2.3E-02				
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	5.5E-04	mg/kg-day	3.0E-01	mg/kg-day	1.8E-03				
				Chromium VI	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.2E-04				
				Exp. Route Total											1E-05					
							Dermal	Benzo(a)anthracene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E+00	mg/kg	9.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.2E-08	3.5E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	9E-01	mg/kg	8.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
				Benzo(k)fluoranthene	7E-01	mg/kg	6.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.0E-10	2.4E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	3E-01	mg/kg	3.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.2E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	5E-01	mg/kg	5.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.7E-09	1.8E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	4E-01	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	7.5E-06				
				Aroclor 1260	4E-02	mg/kg	4.4E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	4.4E-10	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	7.7E-04				
				Arsenic	2E+03	mg/kg	4.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.5E-06	1.5E-04	mg/kg-day	3.0E-04	mg/kg-day	5.1E-01				
				Cadmium	1E+01	mg/kg	8.2E-09	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.1E-02				
Exp. Route Total											7E-06									
Exposure Point Total											2E-05									

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station NT-1	Ingestion	Trichloroethene	5E-02	mg/kg	3.2E-10	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.3E-10	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.8E-05				
				Benzo(a)anthracene	5E-01	mg/kg	3.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.5E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	9E-01	mg/kg	6.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.4E-08	2.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	9.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.1E-09	3.4E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	6E-01	mg/kg	3.8E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.8E-10	1.3E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.3E-09	4.5E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-09	7.5E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	3E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	7.4E-08	mg/kg-day	2.0E-02	mg/kg-day	3.7E-06				
				Aroclor 1260	3E-02	mg/kg	1.9E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.9E-10	6.7E-09	mg/kg-day	2.0E-05	mg/kg-day	3.3E-04				
				Antimony	1E+01	mg/kg	9.8E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.6E-03				
				Arsenic	2E+03	mg/kg	1.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.3E-05	5.9E-04	mg/kg-day	5.9E-04	mg/kg-day	1.0E+00				
				Barium	1E+02	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	7.0E-02	mg/kg-day	3.6E-04				
				Cadmium	9E+00	mg/kg	5.8E-08	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	2.0E-03				
				Chromium III	2E+03	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	3.6E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04				
				Copper	8E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-02	mg/kg-day	6.6E-03				
				Lead																
				Manganese	1E+03	mg/kg	7.2E-06	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	7.0E-02	mg/kg-day	3.6E-03				
				Mercury	5E+00	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-04	mg/kg-day	1.2E-02				
				Nickel	4E+01	mg/kg	2.8E-07	mg/kg-day	N/A	N/A	N/A	9.7E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04				
				Thallium	1E+01	mg/kg	7.5E-08	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	8.0E-05	mg/kg-day	3.3E-02				
				Vanadium	7E+01	mg/kg	4.7E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02				
				Zinc	2E+03	mg/kg	1.1E-05	mg/kg-day	N/A	N/A	N/A	3.9E-04	mg/kg-day	3.0E-01	mg/kg-day	1.3E-03				
				Chromium VI	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	3.0E-03	mg/kg-day	1.6E-04				
				Exp. Route Total										1E-05					1E+00	
				Dermal	Dermal	Station NT-1	Ingestion	Benzo(a)anthracene	5E-01	mg/kg	5.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.7E-09	1.8E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	9E-01	mg/kg	8.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.3E-08	3.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.0E-08	5.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	6E-01	mg/kg	5.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.0E-10	1.9E-07	mg/kg-day	N/A	N/A	N/A
Dibenz(a,h)anthracene	2E-01	mg/kg	1.9E-09					mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.4E-08	6.5E-08	mg/kg-day	N/A	N/A	N/A				
Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.1E-09					mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.3E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A				
Phenanthrene	3E-01	mg/kg	3.1E-09					mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.4E-06				
Aroclor 1260	3E-02	mg/kg	3.0E-10					mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	3.0E-10	1.0E-08	mg/kg-day	2.0E-05	mg/kg-day	5.2E-04				
Arsenic	2E+03	mg/kg	5.6E-06					mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.5E-06	2.0E-04	mg/kg-day	3.0E-04	mg/kg-day	6.6E-01				
Cadmium	9E+00	mg/kg	6.5E-09					mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	2.5E-05	mg/kg-day	9.1E-03				
Exp. Route Total														9E-06					7E-01	
Exposure Point Total										2E-05					2E+00					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station NT-2	Ingestion	Trichloroethene	4E-02	mg/kg	2.4E-10	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	9.6E-11	8.4E-09	mg/kg-day	3.0E-04	mg/kg-day	2.8E-05				
				Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	4E-01	mg/kg	2.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-08	8.5E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	7.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.7E-09	2.7E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	7E-01	mg/kg	5.0E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.6E-10	1.7E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.2E-08	5.8E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-09	6.6E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	3.7E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.5E-06				
				Aroclor 1260	4E-02	mg/kg	2.4E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.4E-10	8.4E-09	mg/kg-day	2.0E-05	mg/kg-day	4.2E-04				
				Antimony	2E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.6E-06	mg/kg-day	4.0E-04	mg/kg-day	9.0E-03				
				Arsenic	2E+03	mg/kg	1.2E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	9.2E-06	4.2E-04	mg/kg-day	5.9E-04	mg/kg-day	7.1E-01				
				Barium	9E+01	mg/kg	5.9E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	7.0E-02	mg/kg-day	2.9E-04				
				Cadmium	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	1.5E-03				
				Chromium III	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	1.5E+00	mg/kg-day	1.5E-04				
				Copper	8E+02	mg/kg	5.1E-06	mg/kg-day	N/A	N/A	N/A	1.8E-04	mg/kg-day	3.0E-02	mg/kg-day	6.0E-03				
				Lead																
				Manganese	9E+02	mg/kg	6.1E-06	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	7.0E-02	mg/kg-day	3.1E-03				
				Mercury	5E+00	mg/kg	3.6E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-04	mg/kg-day	1.3E-02				
				Nickel	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	2.0E-02	mg/kg-day	4.0E-04				
				Thallium	6E-01	mg/kg	3.7E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	8.0E-05	mg/kg-day	1.6E-03				
				Vanadium	7E+01	mg/kg	4.5E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02				
				Zinc	1E+03	mg/kg	8.6E-06	mg/kg-day	N/A	N/A	N/A	3.0E-04	mg/kg-day	3.0E-01	mg/kg-day	1.0E-03				
				Exp. Route Total										9E-06					8E-01	
							Dermal	Benzo(a)anthracene	4E-01	mg/kg	4.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	4E-01	mg/kg	3.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.6E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.3E-09	4.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	7E-01	mg/kg	7.3E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	5.3E-10	2.5E-07	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	2E-01	mg/kg	2.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.8E-08	8.4E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-09	9.7E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.4E-06				
				Aroclor 1260	4E-02	mg/kg	3.7E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	3.7E-10	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	6.5E-04				
				Arsenic	2E+03	mg/kg	4.0E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.0E-06	1.4E-04	mg/kg-day	3.0E-04	mg/kg-day	4.7E-01				
				Cadmium	6E+00	mg/kg	4.8E-09	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	6.7E-03				
Exp. Route Total											6E-06				5E-01					
Exposure Point Total											2E-05				1E+00					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station NT-3	Ingestion	Trichloroethene	5E-02	mg/kg	3.2E-10	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.3E-10	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.8E-05				
				Benzo(a)anthracene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-09	8.2E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	6E-01	mg/kg	3.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.9E-08	1.4E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	9E-01	mg/kg	6.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.4E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	5E-01	mg/kg	3.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.3E-10	1.1E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	9.1E-09	4.3E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	3.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.2E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	4E-01	mg/kg	2.5E-09	mg/kg-day	N/A	N/A	N/A	8.7E-08	mg/kg-day	2.0E-02	mg/kg-day	4.3E-06				
				Aroclor 1260	3E-02	mg/kg	2.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.3E-10	8.2E-09	mg/kg-day	2.0E-05	mg/kg-day	4.1E-04				
				Antimony	2E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.6E-06	mg/kg-day	4.0E-04	mg/kg-day	9.0E-03				
				Arsenic	5E+02	mg/kg	3.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.6E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.0E-01				
				Barium	9E+01	mg/kg	6.3E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.2E-04				
				Cadmium	7E+00	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	1.0E-03	mg/kg-day	1.6E-03				
				Chromium III	1E+03	mg/kg	7.0E-06	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	1.5E+00	mg/kg-day	1.6E-04				
				Copper	8E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-02	mg/kg-day	6.6E-03				
				Lead																
				Manganese	1E+03	mg/kg	6.8E-06	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.4E-03				
				Mercury	5E+00	mg/kg	3.4E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-04	mg/kg-day	1.2E-02				
				Nickel	4E+01	mg/kg	2.5E-07	mg/kg-day	N/A	N/A	N/A	8.6E-06	mg/kg-day	2.0E-02	mg/kg-day	4.3E-04				
				Thallium	6E-01	mg/kg	3.8E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	8.0E-05	mg/kg-day	1.7E-03				
				Vanadium	7E+01	mg/kg	4.6E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	1.0E-03	mg/kg-day	1.6E-02				
				Zinc	1E+03	mg/kg	8.1E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-01	mg/kg-day	9.5E-04				
				Exp. Route Total										3E-06					3E-01	
							Dermal	Benzo(a)anthracene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.5E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	6E-01	mg/kg	5.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.2E-08	2.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	9E-01	mg/kg	8.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	5E-01	mg/kg	4.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.3E-10	1.6E-07	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	2E-01	mg/kg	1.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.3E-08	6.3E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	4.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.2E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
				Phenanthrene	4E-01	mg/kg	3.6E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.3E-06				
				Aroclor 1260	3E-02	mg/kg	3.7E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	3.7E-10	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	6.4E-04				
				Arsenic	5E+02	mg/kg	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-06	4.0E-05	mg/kg-day	3.0E-04	mg/kg-day	1.3E-01				
				Cadmium	7E+00	mg/kg	5.1E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	2.5E-05	mg/kg-day	7.2E-03				
Exp. Route Total											2E-06				1E-01					
Exposure Point Total											4E-06				4E-01					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station WG	Ingestion	Trichloroethene	4E-02	mg/kg	2.8E-10	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	1.1E-10	1.0E-08	mg/kg-day	3.0E-04	mg/kg-day	3.3E-05				
				Benzo(a)anthracene	1E-01	mg/kg	8.8E-10	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.4E-10	3.1E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.9E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	3E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-09	6.9E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	2E-01	mg/kg	1.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	9.9E-11	4.7E-08	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	5E-02	mg/kg	3.1E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.3E-09	1.1E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	9.5E-10	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.9E-10	3.3E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	2.0E-02	mg/kg-day	1.9E-06				
				Aroclor 1260	1E-02	mg/kg	7.5E-11	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	7.5E-11	2.6E-09	mg/kg-day	2.0E-05	mg/kg-day	1.3E-04				
				Antimony	9E+00	mg/kg	6.2E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	4.0E-04	mg/kg-day	5.4E-03				
				Arsenic	3E+02	mg/kg	1.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.4E-06	6.2E-05	mg/kg-day	5.9E-04	mg/kg-day	1.1E-01				
				Barium	9E+01	mg/kg	6.4E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.2E-04				
				Cadmium	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	1.5E-03				
				Chromium III	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	1.5E+00	mg/kg-day	1.5E-04				
				Copper	6E+02	mg/kg	4.3E-06	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	5.0E-03				
				Lead																
				Manganese	1E+03	mg/kg	6.9E-06	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	3.4E-03				
				Mercury	3E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	7.0E-07	mg/kg-day	1.0E-04	mg/kg-day	7.0E-03				
				Nickel	3E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	2.0E-02	mg/kg-day	4.1E-04				
				Thallium	4E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.3E-03				
				Vanadium	7E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02				
				Zinc	1E+03	mg/kg	7.4E-06	mg/kg-day	N/A	N/A	N/A	2.6E-04	mg/kg-day	3.0E-01	mg/kg-day	8.6E-04				
				Exp. Route Total										1E-06					1E-01	
				Sediment (cont.)	Sediment (cont.)	Station WG	Dermal	Benzo(a)anthracene	1E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.4E-10	4.5E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.2E-08	5.5E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	3E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	2E-01	mg/kg	2.0E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.4E-10	6.9E-08	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	5E-02	mg/kg	4.5E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.3E-09	1.6E-08	mg/kg-day	N/A	N/A	N/A
Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.4E-09					mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.0E-09	4.8E-08	mg/kg-day	N/A	N/A	N/A				
Phenanthrene	2E-01	mg/kg	1.6E-09					mg/kg-day	N/A	N/A	N/A	5.5E-08	mg/kg-day	2.0E-02	mg/kg-day	2.8E-06				
Aroclor 1260	1E-02	mg/kg	1.2E-10					mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.2E-10	4.1E-09	mg/kg-day	2.0E-05	mg/kg-day	2.0E-04				
Arsenic	3E+02	mg/kg	6.0E-07					mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.0E-07	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	7.0E-02				
Cadmium	6E+00	mg/kg	4.8E-09					mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.5E-05	mg/kg-day	6.8E-03				
Exp. Route Total														9E-07					8E-02	
Exposure Point Total										2E-06					2E-01					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station WW	Ingestion	Benzo(b)fluoranthene	3E-01	mg/kg	2.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.6E-09	7.8E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	6E-01	mg/kg	4.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	3.0E-10	1.4E-07	mg/kg-day	N/A	N/A	N/A				
				Antimony	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	6.9E-06	mg/kg-day	4.0E-04	mg/kg-day	1.7E-02				
				Arsenic	4E+01	mg/kg	2.8E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.1E-07	9.7E-06	mg/kg-day	5.9E-04	mg/kg-day	1.6E-02				
				Barium	1E+03	mg/kg	9.8E-06	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	7.0E-02	mg/kg-day	4.9E-03				
				Cadmium	1E+01	mg/kg	6.5E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03				
				Chromium III	2E+04	mg/kg	1.0E-04	mg/kg-day	N/A	N/A	N/A	3.7E-03	mg/kg-day	1.5E+00	mg/kg-day	2.4E-03				
				Copper	4E+02	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	9.8E-05	mg/kg-day	3.0E-02	mg/kg-day	3.3E-03				
				Lead																
				Manganese	4E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03				
				Mercury	1E+00	mg/kg	8.1E-09	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-04	mg/kg-day	2.8E-03				
				Nickel	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	2.0E-02	mg/kg-day	3.0E-04				
				Thallium	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	8.0E-05	mg/kg-day	4.5E-03				
				Vanadium	8E+01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.0E-03	mg/kg-day	1.8E-02				
				Zinc	1E+03	mg/kg	9.1E-06	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03				
				Chromium VI	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	4.8E-06	mg/kg-day	3.0E-03	mg/kg-day	1.6E-03				
				Exp. Route Total											2E-07				8E-02	
							Dermal	Benzo(b)fluoranthene	3E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	6E-01	mg/kg	6.0E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.4E-10	2.1E-07	mg/kg-day	N/A	N/A	N/A
								Arsenic	4E+01	mg/kg	9.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	3.3E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
								Cadmium	1E+01	mg/kg	7.3E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.0E-02
				Exp. Route Total											1E-07				2E-02	
				Exposure Point Total											4E-07				1E-01	

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station JY	Ingestion	Aroclor 1254	1E+00	mg/kg	9.3E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.3E-09	3.2E-07	mg/kg-day	2.0E-05	mg/kg-day	1.6E-02				
				Aroclor 1260	1E+00	mg/kg	1.0E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.0E-08	3.5E-07	mg/kg-day	2.0E-05	mg/kg-day	1.7E-02				
				Antimony	5E+00	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	4.0E-04	mg/kg-day	3.2E-03				
				Arsenic	3E+02	mg/kg	1.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.5E-06	6.7E-05	mg/kg-day	5.9E-04	mg/kg-day	1.1E-01				
				Barium	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	7.0E-02	mg/kg-day	6.2E-04				
				Cadmium	1E+01	mg/kg	9.9E-08	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03				
				Chromium III	1E+03	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	1.5E+00	mg/kg-day	1.9E-04				
				Copper	5E+02	mg/kg	3.4E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-02	mg/kg-day	4.0E-03				
				Lead																
				Manganese	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03				
				Mercury	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	4.3E-07	mg/kg-day	1.0E-04	mg/kg-day	4.3E-03				
				Nickel	8E+01	mg/kg	5.1E-07	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.0E-02	mg/kg-day	8.9E-04				
				Thallium	4E+00	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	8.0E-05	mg/kg-day	1.2E-02				
				Vanadium	6E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02				
				Zinc	2E+03	mg/kg	1.6E-05	mg/kg-day	N/A	N/A	N/A	5.6E-04	mg/kg-day	3.0E-01	mg/kg-day	1.9E-03				
				Chromium VI	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.2E-04				
				Exp. Route Total											1E-06				2E-01	
							Dermal	Aroclor 1254	1E+00	mg/kg	1.5E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.5E-08	5.1E-07	mg/kg-day	2.0E-05	mg/kg-day	2.5E-02
								Aroclor 1260	1E+00	mg/kg	1.6E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.6E-08	5.5E-07	mg/kg-day	2.0E-05	mg/kg-day	2.7E-02
								Arsenic	3E+02	mg/kg	6.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.7E-07	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.5E-02
								Cadmium	1E+01	mg/kg	1.1E-08	mg/kg-day	N/A	N/A	N/A	3.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.5E-02
Exp. Route Total											1E-06				1E-01					
Exposure Point Total											2E-06				3E-01					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations							
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient			
							Value	Units	Value	Units		Value	Units	Value	Units				
Sediment (cont.)	Sediment (cont.)	Station WS/WSS	Ingestion	Antimony	5E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	4.0E-04	mg/kg-day	8.8E-03			
				Arsenic	2E+02	mg/kg	4.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.5E-06	1.6E-04	mg/kg-day	5.9E-04	mg/kg-day	2.7E-01			
				Barium	1E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03			
				Cadmium	1E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.6E-06	mg/kg-day	1.0E-03	mg/kg-day	7.6E-03			
				Chromium III	7E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.2E-04	mg/kg-day	1.5E+00	mg/kg-day	3.5E-04			
				Copper	4E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-02	mg/kg-day	9.8E-03			
				Lead															
				Manganese	1E+03	mg/kg	2.5E-05	mg/kg-day	N/A	N/A	N/A	8.7E-04	mg/kg-day	7.0E-02	mg/kg-day	1.2E-02			
				Mercury	1E+00	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-04	mg/kg-day	9.7E-03			
				Nickel	4E+01	mg/kg	7.4E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.3E-03			
				Thallium	1E+00	mg/kg	2.2E-08	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	8.0E-05	mg/kg-day	9.8E-03			
				Vanadium	4E+01	mg/kg	9.1E-07	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-03	mg/kg-day	3.2E-02			
				Zinc	2E+03	mg/kg	4.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	4.9E-03			
				Chromium VI	9E-01	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	6.7E-07	mg/kg-day	3.0E-03	mg/kg-day	2.2E-04			
			Exp. Route Total									4E-06					4E-01		
						Dermal	Arsenic	2E+02	mg/kg	1.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.3E-06	5.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.8E-01
							Cadmium	1E+01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	8.5E-07	mg/kg-day	2.5E-05	mg/kg-day	3.4E-02	
			Exp. Route Total										2E-06					2E-01	
			Exposure Point Total										6E-06					6E-01	

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Sediment (cont.)	Sediment (cont.)	Station TT-30	Ingestion	Arsenic	1E+03	mg/kg	7.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	5.6E-06	2.6E-04	mg/kg-day	5.9E-04	mg/kg-day	4.3E-01	
				Barium	3E+01	mg/kg	2.2E-07	mg/kg-day	N/A	N/A	N/A	7.8E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04	
				Cadmium	7E+00	mg/kg	4.8E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-03	mg/kg-day	1.7E-03	
				Chromium III	5E+03	mg/kg	3.6E-05	mg/kg-day	N/A	N/A	N/A	1.3E-03	mg/kg-day	1.5E+00	mg/kg-day	8.4E-04	
				Copper	4E+03	mg/kg	2.6E-05	mg/kg-day	N/A	N/A	N/A	8.9E-04	mg/kg-day	3.0E-02	mg/kg-day	3.0E-02	
				Lead													
				Manganese	2E+02	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	7.0E-02	mg/kg-day	7.0E-04	
				Mercury	9E+01	mg/kg	6.1E-07	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-04	mg/kg-day	2.1E-01	
				Nickel	8E+00	mg/kg	5.4E-08	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	9.5E-05	
				Thallium	2E+00	mg/kg	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.6E-07	mg/kg-day	8.0E-05	mg/kg-day	4.5E-03	
				Vanadium	2E+01	mg/kg	1.4E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	1.0E-03	mg/kg-day	5.0E-03	
				Zinc	1E+03	mg/kg	7.9E-06	mg/kg-day	N/A	N/A	N/A	2.8E-04	mg/kg-day	3.0E-01	mg/kg-day	9.3E-04	
				Chromium VI	7E+00	mg/kg	4.7E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	3.0E-03	mg/kg-day	5.5E-04	
		Exp. Route Total								6E-06						7E-01	
					Dermal												
					Arsenic	1E+03	mg/kg	2.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.7E-06	8.6E-05	mg/kg-day	3.0E-04	mg/kg-day	2.9E-01
					Cadmium	7E+00	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	2.5E-05	mg/kg-day	7.6E-03
					Exp. Route Total							4E-06				3E-01	
				Exposure Point Total								9E-06				1E+00	
				Station TT-31	Ingestion												
					Arsenic	2E+01	mg/kg	1.1E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	8.7E-08	3.9E-06	mg/kg-day	5.9E-04	mg/kg-day	6.7E-03
					Barium	9E+01	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	7.0E-02	mg/kg-day	3.1E-04
					Cadmium	4E+00	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.9E-07	mg/kg-day	1.0E-03	mg/kg-day	9.9E-04
					Chromium III	2E+02	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.5E+00	mg/kg-day	2.9E-05
					Copper	1E+02	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	3.0E-02	mg/kg-day	9.0E-04
					Lead												
					Manganese	6E+02	mg/kg	4.0E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	7.0E-02	mg/kg-day	2.0E-03
			Mercury	1E+00	mg/kg	9.6E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	1.0E-04	mg/kg-day	3.4E-03		
			Nickel	3E+01	mg/kg	1.8E-07	mg/kg-day	N/A	N/A	N/A	6.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.1E-04		
			Vanadium	5E+01	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-03	mg/kg-day	1.1E-02		
			Zinc	5E+02	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	3.0E-01	mg/kg-day	3.7E-04		
			Exp. Route Total							9E-08				3E-02			
			Dermal														
			Arsenic	2E+01	mg/kg	3.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.7E-08	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.4E-03		
			Cadmium	4E+00	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.5E-05	mg/kg-day	4.4E-03		
			Exp. Route Total							6E-08				9E-03			
		Exposure Point Total								1E-07				3E-02			

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations							
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient			
							Value	Units	Value	Units		Value	Units	Value	Units				
Sediment (cont.)	Sediment (cont.)	Station CB-03	Ingestion	Antimony	2E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-06	mg/kg-day	4.0E-04	mg/kg-day	2.7E-03			
				Arsenic	6E+02	mg/kg	1.2E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	9.3E-06	4.2E-04	mg/kg-day	5.9E-04	mg/kg-day	7.2E-01			
				Barium	7E+01	mg/kg	1.4E-06	mg/kg-day	N/A	N/A	N/A	4.7E-05	mg/kg-day	7.0E-02	mg/kg-day	6.8E-04			
				Cadmium	1E+01	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	9.3E-06	mg/kg-day	1.0E-03	mg/kg-day	9.3E-03			
				Chromium III	5E+02	mg/kg	9.3E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	1.5E+00	mg/kg-day	2.2E-04			
				Copper	4E+02	mg/kg	7.7E-06	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	3.0E-02	mg/kg-day	8.9E-03			
				Lead															
				Manganese	5E+02	mg/kg	9.4E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	7.0E-02	mg/kg-day	4.7E-03			
				Mercury	2E+00	mg/kg	5.0E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02			
				Nickel	4E+01	mg/kg	7.5E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.0E-02	mg/kg-day	1.3E-03			
				Thallium	1E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	6.9E-07	mg/kg-day	8.0E-05	mg/kg-day	8.6E-03			
				Vanadium	6E+01	mg/kg	1.3E-06	mg/kg-day	N/A	N/A	N/A	4.4E-05	mg/kg-day	1.0E-03	mg/kg-day	4.4E-02			
				Zinc	2E+03	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	5.0E-03			
						Exp. Route Total							9E-06				8E-01		
						Dermal	Arsenic	6E+02	mg/kg	4.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.1E-06	1.4E-04	mg/kg-day	3.0E-04	mg/kg-day	4.7E-01
							Cadmium	1E+01	mg/kg	3.0E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	2.5E-05	mg/kg-day	4.2E-02
							Exp. Route Total						6E-06				5E-01		
							Exposure Point Total						2E-05				1E+00		
					Station CB-04	Ingestion	Antimony	5E+00	mg/kg	9.7E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.5E-03
							Arsenic	2E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.8E-06	1.3E-04	mg/kg-day	5.9E-04	mg/kg-day	2.2E-01
							Barium	8E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.8E-04
							Cadmium	6E+00	mg/kg	1.2E-07	mg/kg-day	N/A	N/A	N/A	4.1E-06	mg/kg-day	1.0E-03	mg/kg-day	4.1E-03
							Chromium III	3E+02	mg/kg	5.5E-06	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	1.5E+00	mg/kg-day	1.3E-04
Copper	2E+02	mg/kg					5.0E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-02	mg/kg-day	5.8E-03			
Lead																			
Manganese	1E+03	mg/kg					2.8E-05	mg/kg-day	N/A	N/A	N/A	9.8E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-02			
Mercury	1E+00	mg/kg					2.5E-08	mg/kg-day	N/A	N/A	N/A	8.6E-07	mg/kg-day	1.0E-04	mg/kg-day	8.6E-03			
Nickel	8E+01	mg/kg					1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	2.0E-02	mg/kg-day	2.7E-03			
Thallium	1E+00	mg/kg					2.3E-08	mg/kg-day	N/A	N/A	N/A	8.0E-07	mg/kg-day	8.0E-05	mg/kg-day	1.0E-02			
Vanadium	7E+01	mg/kg					1.4E-06	mg/kg-day	N/A	N/A	N/A	4.9E-05	mg/kg-day	1.0E-03	mg/kg-day	4.9E-02			
Zinc	3E+03	mg/kg					6.2E-05	mg/kg-day	N/A	N/A	N/A	2.2E-03	mg/kg-day	3.0E-01	mg/kg-day	7.3E-03			
						Exp. Route Total							3E-06				3E-01		
						Dermal	Arsenic	2E+02	mg/kg	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-06	4.3E-05	mg/kg-day	3.0E-04	mg/kg-day	1.4E-01
							Cadmium	6E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	2.5E-05	mg/kg-day	1.8E-02
							Exp. Route Total						2E-06				2E-01		
							Exposure Point Total						5E-06				5E-01		

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations							
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient			
							Value	Units	Value	Units		Value	Units	Value	Units				
Sediment (cont.)	Sediment (cont.)	Station CB-06	Ingestion	Antimony	5E+00	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	4.0E-04	mg/kg-day	8.4E-03			
				Arsenic	1E+02	mg/kg	2.8E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.2E-06	1.0E-04	mg/kg-day	5.9E-04	mg/kg-day	1.7E-01			
				Barium	5E+01	mg/kg	1.0E-06	mg/kg-day	N/A	N/A	N/A	3.6E-05	mg/kg-day	7.0E-02	mg/kg-day	5.2E-04			
				Cadmium	2E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02			
				Chromium III	5E+02	mg/kg	1.0E-05	mg/kg-day	N/A	N/A	N/A	3.5E-04	mg/kg-day	1.5E+00	mg/kg-day	2.4E-04			
				Copper	2E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	3.0E-02	mg/kg-day	5.6E-03			
				Lead															
				Manganese	9E+01	mg/kg	1.9E-06	mg/kg-day	N/A	N/A	N/A	6.7E-05	mg/kg-day	7.0E-02	mg/kg-day	9.5E-04			
				Mercury	3E-01	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	1.0E-04	mg/kg-day	2.4E-03			
				Nickel	3E+01	mg/kg	5.6E-07	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	2.0E-02	mg/kg-day	9.8E-04			
				Thallium	4E+00	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	8.0E-05	mg/kg-day	3.7E-02			
				Vanadium	7E+01	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	1.0E-03	mg/kg-day	5.1E-02			
				Zinc	2E+03	mg/kg	4.2E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	4.9E-03			
				Chromium VI	6E-01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.6E-07	mg/kg-day	3.0E-03	mg/kg-day	1.5E-04			
					Exp. Route Total							2E-06					3E-01		
					Dermal	Arsenic	1E+02	mg/kg	9.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-06	3.3E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01	
						Cadmium	2E+01	mg/kg	3.9E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	2.5E-05	mg/kg-day	5.5E-02	
					Exp. Route Total							1E-06					2E-01		
					Exposure Point Total							4E-06					5E-01		
				Station CB-07	Ingestion	Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.1E-06	5.0E-05	mg/kg-day	5.9E-04	mg/kg-day	8.5E-02	
							Barium	6E+01	mg/kg	3.8E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.9E-04
							Cadmium	5E+00	mg/kg	3.3E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03
							Chromium III	7E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	1.7E-04	mg/kg-day	1.5E+00	mg/kg-day	1.1E-04
							Copper	2E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.9E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03
			Lead																
			Manganese			3E+02	mg/kg	2.3E-06	mg/kg-day	N/A	N/A	N/A	7.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03		
			Mercury			1E+00	mg/kg	8.8E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	1.0E-04	mg/kg-day	3.1E-03		
			Nickel			2E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	2.0E-02	mg/kg-day	2.6E-04		
			Vanadium			9E+01	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	2.2E-05	mg/kg-day	1.0E-03	mg/kg-day	2.2E-02		
			Zinc			6E+02	mg/kg	4.2E-06	mg/kg-day	N/A	N/A	N/A	1.5E-04	mg/kg-day	3.0E-01	mg/kg-day	4.9E-04		
			Exp. Route Total									1E-06					1E-01		
			Dermal	Arsenic	2E+02	mg/kg	4.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.2E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02			
				Cadmium	5E+00	mg/kg	3.7E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.2E-03			
			Exp. Route Total							7E-07					6E-02				
			Exposure Point Total							2E-06					2E-01				

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 16/TT-33	Ingestion	Benzo(a)anthracene	1E-01	mg/kg	7.5E-10	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.4E-10	2.6E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	1E-01	mg/kg	9.5E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.9E-09	3.3E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-09	5.6E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	1E-01	mg/kg	6.7E-10	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.9E-11	2.4E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	4.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.0E-10	1.4E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	1E-01	mg/kg	8.8E-10	mg/kg-day	N/A	N/A	N/A	3.1E-08	mg/kg-day	2.0E-02	mg/kg-day	1.5E-06				
				Antimony	6E+00	mg/kg	4.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	3.5E-03				
				Arsenic	2E+02	mg/kg	1.6E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.2E-06	5.6E-05	mg/kg-day	5.9E-04	mg/kg-day	9.5E-02				
				Barium	6E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	7.0E-02	mg/kg-day	2.1E-04				
				Cadmium	6E+00	mg/kg	3.8E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	1.3E-03				
				Chromium III	6E+02	mg/kg	3.9E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	1.5E+00	mg/kg-day	9.1E-05				
				Copper	4E+02	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	9.5E-05	mg/kg-day	3.0E-02	mg/kg-day	3.2E-03				
				Lead																
				Manganese	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.2E-05	mg/kg-day	7.0E-02	mg/kg-day	1.3E-03				
				Mercury	3E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	8.1E-07	mg/kg-day	1.0E-04	mg/kg-day	8.1E-03				
				Nickel	2E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.7E-06	mg/kg-day	2.0E-02	mg/kg-day	1.8E-04				
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.3E-06	mg/kg-day	1.0E-03	mg/kg-day	7.3E-03				
				Zinc	9E+02	mg/kg	6.3E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-01	mg/kg-day	7.4E-04				
				Chromium VI	7E-01	mg/kg	5.1E-09	mg/kg-day	N/A	N/A	N/A	1.8E-07	mg/kg-day	3.0E-03	mg/kg-day	5.9E-05				
				Exp. Route Total											1E-06				1E-01	
							Dermal	Benzo(a)anthracene	1E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	7.9E-10	3.8E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	1E-01	mg/kg	1.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.0E-08	4.8E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	2E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-09	8.1E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	1E-01	mg/kg	9.8E-10	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	7.1E-11	3.4E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	6E-02	mg/kg	5.9E-10	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.3E-10	2.1E-08	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	1E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	2.0E-02	mg/kg-day	2.2E-06
								Arsenic	2E+02	mg/kg	5.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.1E-07	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.3E-02
								Cadmium	6E+00	mg/kg	4.3E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.5E-05	mg/kg-day	6.0E-03
Exp. Route Total											8E-07				7E-02					
Exposure Point Total											2E-06				2E-01					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 09	Ingestion	Benzo(a)anthracene	5E-01	mg/kg	3.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	5E-01	mg/kg	3.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.5E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	9.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.5E-09	3.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	1E+00	mg/kg	8.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.0E-10	2.9E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	8E-02	mg/kg	5.4E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.0E-09	1.9E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-09	6.0E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	3E-01	mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	2.0E-02	mg/kg-day	3.6E-06				
				Antimony	1E+00	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.0E-04				
				Arsenic	3E+01	mg/kg	2.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.8E-07	8.3E-06	mg/kg-day	5.9E-04	mg/kg-day	1.4E-02				
				Barium	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	7.9E-06	mg/kg-day	7.0E-02	mg/kg-day	1.1E-04				
				Cadmium	7E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	1.6E-04				
				Chromium III	6E+01	mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.5E+00	mg/kg-day	9.3E-06				
				Copper	6E+01	mg/kg	4.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	5.0E-04				
				Lead																
				Manganese	4E+02	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03				
				Mercury	4E-01	mg/kg	2.6E-09	mg/kg-day	N/A	N/A	N/A	9.1E-08	mg/kg-day	1.0E-04	mg/kg-day	9.1E-04				
				Nickel	1E+01	mg/kg	6.6E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.0E-02	mg/kg-day	1.1E-04				
				Thallium	1E+00	mg/kg	8.8E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	8.0E-05	mg/kg-day	3.8E-03				
				Vanadium	1E+01	mg/kg	9.3E-08	mg/kg-day	N/A	N/A	N/A	3.2E-06	mg/kg-day	1.0E-03	mg/kg-day	3.2E-03				
				Zinc	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-01	mg/kg-day	1.9E-04				
				Exp. Route Total											2E-07					2E-02
							Dermal	Benzo(a)anthracene	5E-01	mg/kg	4.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.4E-09	1.6E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	5E-01	mg/kg	5.0E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.6E-08	1.7E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.5E-09	4.6E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	1E+00	mg/kg	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.7E-10	4.2E-07	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	8E-02	mg/kg	7.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.8E-09	2.8E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.8E-09	8.7E-08	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	3E-01	mg/kg	3.0E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.3E-06
				Arsenic	3E+01	mg/kg	7.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-07	2.8E-06	mg/kg-day	3.0E-04	mg/kg-day	9.3E-03				
				Cadmium	7E-01	mg/kg	5.2E-10	mg/kg-day	N/A	N/A	N/A	1.8E-08	mg/kg-day	2.5E-05	mg/kg-day	7.2E-04				
Exp. Route Total											2E-07					1E-02				
Exposure Point Total											4E-07					3E-02				

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 08	Ingestion	Benzo(a)anthracene	5E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.4E-09	1.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	6E-01	mg/kg	4.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.1E-08	1.5E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+00	mg/kg	8.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.4E-08	3.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	1E+00	mg/kg	9.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.7E-10	3.2E-07	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	9E-02	mg/kg	6.3E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.6E-09	2.2E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	2.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.0E-09	9.5E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.7E-06				
				Antimony	1E+00	mg/kg	7.0E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	4.0E-04	mg/kg-day	6.1E-04				
				Arsenic	2E+01	mg/kg	1.3E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	9.8E-08	4.4E-06	mg/kg-day	5.9E-04	mg/kg-day	7.5E-03				
				Barium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	7.0E-02	mg/kg-day	6.4E-05				
				Chromium III	5E+01	mg/kg	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.6E-06				
				Copper	7E+01	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	5.8E-04				
				Lead																
				Manganese	2E+02	mg/kg	1.1E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	7.0E-02	mg/kg-day	5.5E-04				
				Mercury	5E-01	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03				
				Nickel	1E+01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.0E-02	mg/kg-day	1.4E-04				
				Thallium	1E+00	mg/kg	9.7E-09	mg/kg-day	N/A	N/A	N/A	3.4E-07	mg/kg-day	8.0E-05	mg/kg-day	4.3E-03				
				Vanadium	1E+01	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-03	mg/kg-day	3.5E-03				
				Zinc	4E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.3E-05	mg/kg-day	3.0E-01	mg/kg-day	2.8E-04				
				Exp. Route Total										1E-07				2E-02		
							Dermal	Benzo(a)anthracene	5E-01	mg/kg	4.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.5E-09	1.7E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	6E-01	mg/kg	6.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.5E-08	2.2E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.3E-09	4.4E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	9.8E-10	4.7E-07	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	9E-02	mg/kg	9.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	6.7E-09	3.2E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	4E-01	mg/kg	4.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.9E-09	1.4E-07	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	5E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.2E-06
				Arsenic	2E+01	mg/kg	4.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.4E-08	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.0E-03				
Exp. Route Total											1E-07				5E-03					
Exposure Point Total											3E-07				2E-02					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 07/DP	Ingestion	Trichloroethene	2E-02	mg/kg	1.5E-10	mg/kg-day	4.0E-01	(mg/kg-day) ⁻¹	6.0E-11	5.3E-09	mg/kg-day	3.0E-04	mg/kg-day	1.8E-05				
				Benzo(a)anthracene	6E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	6E+00	mg/kg	3.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.7E-07	1.3E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	1E+01	mg/kg	6.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.7E-08	2.3E-06	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	9E+00	mg/kg	6.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	4.5E-09	2.2E-06	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	1E+00	mg/kg	7.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.4E-08	2.6E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.9E-08	9.2E-07	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	7E+00	mg/kg	4.6E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	8.1E-05				
				Aroclor 1260	7E-02	mg/kg	4.5E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	4.5E-10	1.6E-08	mg/kg-day	2.0E-05	mg/kg-day	7.9E-04				
				Antimony	2E+00	mg/kg	1.6E-08	mg/kg-day	N/A	N/A	N/A	5.5E-07	mg/kg-day	4.0E-04	mg/kg-day	1.4E-03				
				Arsenic	8E+01	mg/kg	5.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	4.2E-07	1.9E-05	mg/kg-day	5.9E-04	mg/kg-day	3.2E-02				
				Barium	8E+01	mg/kg	5.7E-07	mg/kg-day	N/A	N/A	N/A	2.0E-05	mg/kg-day	7.0E-02	mg/kg-day	2.9E-04				
				Cadmium	5E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	1.2E-03				
				Chromium III	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	1.5E+00	mg/kg-day	3.9E-05				
				Copper	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.6E-05	mg/kg-day	3.0E-02	mg/kg-day	1.9E-03				
				Lead																
				Manganese	4E+02	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	9.9E-05	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03				
				Mercury	3E+00	mg/kg	1.9E-08	mg/kg-day	N/A	N/A	N/A	6.6E-07	mg/kg-day	1.0E-04	mg/kg-day	6.6E-03				
				Nickel	3E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	6.5E-06	mg/kg-day	2.0E-02	mg/kg-day	3.3E-04				
				Thallium	2E+00	mg/kg	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	8.0E-05	mg/kg-day	6.6E-03				
				Vanadium	5E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02				
				Zinc	1E+03	mg/kg	9.1E-06	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	3.0E-01	mg/kg-day	1.1E-03				
				Exp. Route Total										8E-07					7E-02	
							Dermal	Benzo(a)anthracene	6E+00	mg/kg	5.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.0E-08	1.9E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	6E+00	mg/kg	5.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	4.0E-07	1.9E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	1E+01	mg/kg	9.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	6.9E-08	3.3E-06	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	9E+00	mg/kg	9.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	6.6E-09	3.2E-06	mg/kg-day	N/A	N/A	N/A
				Dibenz(a,h)anthracene	1E+00	mg/kg	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.8E-08	3.7E-07	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	4E+00	mg/kg	3.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-08	1.3E-06	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	7E+00	mg/kg	6.7E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04				
				Aroclor 1260	7E-02	mg/kg	7.1E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	7.1E-10	2.5E-08	mg/kg-day	2.0E-05	mg/kg-day	1.2E-03				
				Arsenic	8E+01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-07	6.4E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02				
				Cadmium	5E+00	mg/kg	3.9E-09	mg/kg-day	N/A	N/A	N/A	1.4E-07	mg/kg-day	2.5E-05	mg/kg-day	5.4E-03				
Exp. Route Total											9E-07				3E-02					
Exposure Point Total											2E-06				9E-02					

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 05	Ingestion	Benzo(a)anthracene	4E-01	mg/kg	2.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.1E-09	1.0E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.7E-08	8.2E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	4E-01	mg/kg	2.4E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-08	8.4E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	3E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.3E-10	6.0E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.6E-10	4.1E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	7E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.1E-06				
				Antimony	9E-01	mg/kg	6.4E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	4.0E-04	mg/kg-day	5.6E-04				
				Arsenic	8E+00	mg/kg	5.6E-08	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	4.3E-08	2.0E-06	mg/kg-day	5.9E-04	mg/kg-day	3.3E-03				
				Barium	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04				
				Cadmium	2E-01	mg/kg	1.5E-09	mg/kg-day	N/A	N/A	N/A	5.2E-08	mg/kg-day	1.0E-03	mg/kg-day	5.2E-05				
				Chromium III	3E+01	mg/kg	2.3E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.5E+00	mg/kg-day	5.3E-06				
				Copper	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	3.0E-02	mg/kg-day	2.0E-04				
				Lead																
				Manganese	4E+02	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.4E-03				
				Mercury	9E-02	mg/kg	6.1E-10	mg/kg-day	N/A	N/A	N/A	2.1E-08	mg/kg-day	1.0E-04	mg/kg-day	2.1E-04				
				Nickel	1E+01	mg/kg	6.9E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	1.2E-04				
				Thallium	6E-01	mg/kg	4.2E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	8.0E-05	mg/kg-day	1.8E-03				
				Vanadium	2E+01	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	1.0E-03	mg/kg-day	4.5E-03				
				Zinc	1E+02	mg/kg	8.2E-07	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	3.0E-01	mg/kg-day	9.6E-05				
				Exp. Route Total											7E-08					
							Dermal	Benzo(a)anthracene	4E-01	mg/kg	4.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.1E-09	1.5E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.5E-08	1.2E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	4E-01	mg/kg	3.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.5E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	3E-01	mg/kg	2.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.8E-10	8.8E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-09	6.0E-08	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	7E-01	mg/kg	6.7E-09	mg/kg-day	N/A	N/A	N/A	2.4E-07	mg/kg-day	2.0E-02	mg/kg-day	1.2E-05
								Arsenic	8E+00	mg/kg	1.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.8E-08	6.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.2E-03
				Cadmium	2E-01	mg/kg	1.7E-10	mg/kg-day	N/A	N/A	N/A	5.8E-09	mg/kg-day	2.5E-05	mg/kg-day	2.3E-04				
Exp. Route Total											6E-08									
Exposure Point Total											1E-07									

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE UO3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 03	Ingestion	Benzo(a)anthracene	6E-01	mg/kg	3.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.8E-09	1.3E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	5E-01	mg/kg	3.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	2.3E-08	1.1E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	6E-01	mg/kg	4.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	3.0E-08	1.4E-07	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.7E-10	8.2E-08	mg/kg-day	N/A	N/A	N/A				
				Dibenz(a,h)anthracene	1E-01	mg/kg	7.5E-10	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	5.4E-09	2.6E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	2.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.7E-09	8.0E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.5E-06				
				Aroclor 1260	5E-02	mg/kg	3.4E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	3.4E-10	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	5.9E-04				
				Antimony	8E-01	mg/kg	5.4E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	4.0E-04	mg/kg-day	4.7E-04				
				Arsenic	3E+01	mg/kg	2.2E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.7E-07	7.8E-06	mg/kg-day	5.9E-04	mg/kg-day	1.3E-02				
				Barium	4E+01	mg/kg	2.4E-07	mg/kg-day	N/A	N/A	N/A	8.3E-06	mg/kg-day	7.0E-02	mg/kg-day	1.2E-04				
				Cadmium	2E+00	mg/kg	1.2E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	1.0E-03	mg/kg-day	4.1E-04				
				Chromium III	7E+01	mg/kg	5.0E-07	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	1.5E+00	mg/kg-day	1.2E-05				
				Copper	6E+01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	3.0E-02	mg/kg-day	4.9E-04				
				Lead																
				Manganese	2E+02	mg/kg	1.5E-06	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	7.0E-02	mg/kg-day	7.3E-04				
				Mercury	3E-01	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	6.3E-08	mg/kg-day	1.0E-04	mg/kg-day	6.3E-04				
				Nickel	1E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.0E-02	mg/kg-day	1.5E-04				
				Vanadium	2E+01	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	5.3E-06	mg/kg-day	1.0E-03	mg/kg-day	5.3E-03				
				Zinc	5E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	4.1E-04				
				Exp. Route Total										2E-07					2E-02	
							Dermal	Benzo(a)anthracene	6E-01	mg/kg	5.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.1E-09	2.0E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	5E-01	mg/kg	4.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	3.4E-08	1.6E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	6E-01	mg/kg	5.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	4.3E-09	2.1E-07	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	3E-01	mg/kg	3.4E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	2.5E-10	1.2E-07	mg/kg-day	N/A	N/A	N/A
								Dibenz(a,h)anthracene	1E-01	mg/kg	1.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	7.9E-09	3.8E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	3E-01	mg/kg	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	2.4E-09	1.2E-07	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	5E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.0E-06
								Aroclor 1260	5E-02	mg/kg	5.3E-10	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	5.3E-10	1.9E-08	mg/kg-day	2.0E-05	mg/kg-day	9.3E-04
				Arsenic	3E+01	mg/kg	7.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-07	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.8E-03				
				Cadmium	2E+00	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.9E-03				
Exp. Route Total											2E-07					1E-02				
Exposure Point Total											4E-07					3E-02				

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Sediment (cont.)	Sediment (cont.)	Station 01	Ingestion	Benzo(a)anthracene	2E-01	mg/kg	1.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	9.5E-10	4.5E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(a)pyrene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	8.6E-09	4.1E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(b)fluoranthene	2E-01	mg/kg	1.1E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.2E-10	3.9E-08	mg/kg-day	N/A	N/A	N/A				
				Benzo(k)fluoranthene	2E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	8.7E-11	4.2E-08	mg/kg-day	N/A	N/A	N/A				
				Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	8.1E-10	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	5.9E-10	2.8E-08	mg/kg-day	N/A	N/A	N/A				
				Phenanthrene	5E-01	mg/kg	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	5.5E-06				
				Antimony	9E-01	mg/kg	6.0E-09	mg/kg-day	N/A	N/A	N/A	2.1E-07	mg/kg-day	4.0E-04	mg/kg-day	5.2E-04				
				Arsenic	6E+00	mg/kg	4.2E-08	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.2E-08	1.5E-06	mg/kg-day	5.9E-04	mg/kg-day	2.5E-03				
				Barium	1E+01	mg/kg	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	7.0E-02	mg/kg-day	4.2E-05				
				Cadmium	2E-01	mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	1.0E-03	mg/kg-day	3.9E-05				
				Chromium III	8E+00	mg/kg	5.6E-08	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	1.5E+00	mg/kg-day	1.3E-06				
				Copper	1E+01	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	9.3E-05				
				Lead																
				Manganese	8E+01	mg/kg	5.5E-07	mg/kg-day	N/A	N/A	N/A	1.9E-05	mg/kg-day	7.0E-02	mg/kg-day	2.8E-04				
				Nickel	6E+00	mg/kg	4.3E-08	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.0E-02	mg/kg-day	7.6E-05				
				Thallium	5E-01	mg/kg	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	8.0E-05	mg/kg-day	1.5E-03				
				Vanadium	1E+01	mg/kg	6.5E-08	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	1.0E-03	mg/kg-day	2.3E-03				
				Zinc	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-01	mg/kg-day	8.1E-05				
				Exp. Route Total										4E-08					7E-03	
							Dermal	Benzo(a)anthracene	2E-01	mg/kg	1.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.4E-09	6.6E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(a)pyrene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) ⁻¹	1.3E-08	6.0E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(b)fluoranthene	2E-01	mg/kg	1.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	1.2E-09	5.7E-08	mg/kg-day	N/A	N/A	N/A
								Benzo(k)fluoranthene	2E-01	mg/kg	1.7E-09	mg/kg-day	7.3E-02	(mg/kg-day) ⁻¹	1.3E-10	6.1E-08	mg/kg-day	N/A	N/A	N/A
								Indeno(1,2,3-cd)pyrene	1E-01	mg/kg	1.2E-09	mg/kg-day	7.3E-01	(mg/kg-day) ⁻¹	8.7E-10	4.1E-08	mg/kg-day	N/A	N/A	N/A
								Phenanthrene	5E-01	mg/kg	4.6E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	8.0E-06
								Arsenic	6E+00	mg/kg	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-08	4.9E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03
								Cadmium	2E-01	mg/kg	1.3E-10	mg/kg-day	N/A	N/A	N/A	4.4E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
Exp. Route Total											4E-08					2E-03				
Exposure Point Total											8E-08					9E-03				
Exposure Medium Total											N/A					N/A				

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Soil	Surface Soil	Station NR	Ingestion	Arsenic	2E+02	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-06	4.8E-05	mg/kg-day	3.0E-04	mg/kg-day	1.6E-01		
				Cadmium	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	1.0E-03	mg/kg-day	5.1E-04		
				Chromium VI	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	3.0E-03	mg/kg-day	1.4E-02		
				Copper	2E+02	mg/kg	1.2E-06	mg/kg-day	N/A	N/A	N/A	4.1E-05	mg/kg-day	3.0E-02	mg/kg-day	1.4E-03		
				Manganese	3E+02	mg/kg	2.1E-06	mg/kg-day	N/A	N/A	N/A	7.3E-05	mg/kg-day	7.0E-02	mg/kg-day	1.0E-03		
				Mercury	8E-01	mg/kg	5.5E-09	mg/kg-day	N/A	N/A	N/A	1.9E-07	mg/kg-day	1.0E-04	mg/kg-day	1.9E-03		
				Vanadium	3E+01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	6.0E-06	mg/kg-day	1.0E-03	mg/kg-day	6.0E-03		
				Zinc	5E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	4.2E-04		
				Exp. Route Total								2E-06						2E-01
				Dermal	Arsenic	2E+02	mg/kg	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.9E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.3E-02	
		Cadmium	2E+00		mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.7E-08	mg/kg-day	2.5E-05	mg/kg-day	2.3E-03			
		Exp. Route Total								7E-07						6E-02		
		Exposure Point Total								3E-06						2E-01		
		Station WS/WSS	Ingestion	Arsenic	1E+01	mg/kg	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.8E-06	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.8E-02		
				Cadmium	2E-01	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-03	mg/kg-day	2.8E-04		
				Chromium VI	2E+01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-03	mg/kg-day	8.7E-03		
				Copper	3E+01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	3.0E-02	mg/kg-day	1.3E-03		
				Manganese	2E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	2.7E-04	mg/kg-day	7.0E-02	mg/kg-day	3.9E-03		
				Mercury	1E-01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	1.0E-04	mg/kg-day	1.7E-03		
				Thallium	1E+00	mg/kg	1.5E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	8.0E-05	mg/kg-day	2.1E-02		
				Vanadium	2E+01	mg/kg	2.9E-06	mg/kg-day	N/A	N/A	N/A	3.4E-05	mg/kg-day	1.0E-03	mg/kg-day	3.4E-02		
				Zinc	7E+01	mg/kg	8.8E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	3.0E-01	mg/kg-day	3.4E-04		
				Exp. Route Total								2E-06						1E-01
				Dermal	Arsenic	1E+01	mg/kg	6.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-07	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.0E-03	
					Cadmium	2E-01	mg/kg	4.4E-10	mg/kg-day	N/A	N/A	N/A	1.6E-08	mg/kg-day	2.5E-05	mg/kg-day	6.2E-04	
					Exp. Route Total							1E-07						9E-03
				Exposure Point Total								2E-06						1E-01

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Soil (cont.)	Surface Soil (cont.)	Station CB-05	Ingestion	Arsenic	6E+01	mg/kg	7.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-05	8.5E-05	mg/kg-day	3.0E-04	mg/kg-day	2.8E-01
				Cadmium	7E-01	mg/kg	8.3E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	1.0E-03	mg/kg-day	9.7E-04
				Chromium VI	1E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	3.0E-03	mg/kg-day	6.5E-02
				Copper	5E+01	mg/kg	6.2E-06	mg/kg-day	N/A	N/A	N/A	7.2E-05	mg/kg-day	3.0E-02	mg/kg-day	2.4E-03
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.2E-04	mg/kg-day	7.0E-02	mg/kg-day	4.6E-03
				Mercury	3E-01	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	1.0E-04	mg/kg-day	4.1E-03
				Thallium	2E+00	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	8.0E-05	mg/kg-day	2.9E-02
				Vanadium	3E+01	mg/kg	3.2E-06	mg/kg-day	N/A	N/A	N/A	3.7E-05	mg/kg-day	1.0E-03	mg/kg-day	3.7E-02
				Zinc	2E+02	mg/kg	2.0E-05	mg/kg-day	N/A	N/A	N/A	2.4E-04	mg/kg-day	3.0E-01	mg/kg-day	7.9E-04
				Exp. Route Total								1E-05				
		Dermal	Arsenic	6E+01	mg/kg	4.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.1E-07	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.8E-02	
			Cadmium	7E-01	mg/kg	1.6E-09	mg/kg-day	N/A	N/A	N/A	5.4E-08	mg/kg-day	2.5E-05	mg/kg-day	2.2E-03	
			Exp. Route Total							6E-07					5E-02	
		Exposure Point Total							1E-05						5E-01	
		Station DA	Ingestion	Arsenic	2E+02	mg/kg	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-06	4.6E-05	mg/kg-day	3.0E-04	mg/kg-day	1.5E-01
				Cadmium	1E+00	mg/kg	9.2E-09	mg/kg-day	N/A	N/A	N/A	3.2E-07	mg/kg-day	1.0E-03	mg/kg-day	3.2E-04
				Chromium VI	4E+02	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	3.0E-03	mg/kg-day	3.1E-02
				Copper	2E+02	mg/kg	1.7E-06	mg/kg-day	N/A	N/A	N/A	5.9E-05	mg/kg-day	3.0E-02	mg/kg-day	2.0E-03
				Manganese	8E+02	mg/kg	5.4E-06	mg/kg-day	N/A	N/A	N/A	1.9E-04	mg/kg-day	7.0E-02	mg/kg-day	2.7E-03
				Mercury	1E+00	mg/kg	8.1E-09	mg/kg-day	N/A	N/A	N/A	2.8E-07	mg/kg-day	1.0E-04	mg/kg-day	2.8E-03
				Thallium	3E+00	mg/kg	2.3E-08	mg/kg-day	N/A	N/A	N/A	7.9E-07	mg/kg-day	8.0E-05	mg/kg-day	9.9E-03
				Vanadium	4E+01	mg/kg	2.6E-07	mg/kg-day	N/A	N/A	N/A	9.0E-06	mg/kg-day	1.0E-03	mg/kg-day	9.0E-03
				Zinc	6E+02	mg/kg	4.0E-06	mg/kg-day	N/A	N/A	N/A	1.4E-04	mg/kg-day	3.0E-01	mg/kg-day	4.7E-04
Exp. Route Total									2E-06						2E-01	
Dermal	Arsenic			2E+02	mg/kg	4.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.7E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.2E-02	
	Cadmium			1E+00	mg/kg	1.0E-09	mg/kg-day	N/A	N/A	N/A	3.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.4E-03	
	Exp. Route Total									7E-07					5E-02	
Exposure Point Total							3E-06						3E-01			

TABLE 3-7.4.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Soil (cont.)	Surface Soil (cont.)	Station KF	Ingestion	Arsenic	5E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.7E-07	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.6E-02		
				Cadmium	1E+00	mg/kg	9.6E-09	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	1.0E-03	mg/kg-day	3.3E-04		
				Chromium VI	1E+02	mg/kg	8.1E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	3.0E-03	mg/kg-day	9.4E-03		
				Copper	1E+02	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	3.0E-02	mg/kg-day	8.6E-04		
				Manganese	8E+02	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	2.0E-04	mg/kg-day	7.0E-02	mg/kg-day	2.8E-03		
				Mercury	7E-01	mg/kg	4.7E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-04	mg/kg-day	1.6E-03		
				Vanadium	3E+01	mg/kg	2.0E-07	mg/kg-day	N/A	N/A	N/A	6.9E-06	mg/kg-day	1.0E-03	mg/kg-day	6.9E-03		
				Zinc	4E+02	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.3E-05	mg/kg-day	3.0E-01	mg/kg-day	3.1E-04		
				Exp. Route Total								5E-07						6E-02
				Dermal	Arsenic	5E+01	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-07	3.7E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02	
		Cadmium	1E+00		mg/kg	1.1E-09	mg/kg-day	N/A	N/A	N/A	3.7E-08	mg/kg-day	2.5E-05	mg/kg-day	1.5E-03			
		Exp. Route Total								2E-07					1E-02			
		Exposure Point Total								6E-07					7E-02			
		Station 07/DP	Ingestion	Arsenic	4E+01	mg/kg	3.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.5E-07	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	3.5E-02		
				Cadmium	2E-01	mg/kg	1.3E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	1.0E-03	mg/kg-day	4.5E-05		
				Chromium VI	1E+02	mg/kg	9.5E-07	mg/kg-day	N/A	N/A	N/A	3.3E-05	mg/kg-day	3.0E-03	mg/kg-day	1.1E-02		
				Copper	1E+02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	2.4E-05	mg/kg-day	3.0E-02	mg/kg-day	8.0E-04		
				Manganese	3E+02	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	7.8E-05	mg/kg-day	7.0E-02	mg/kg-day	1.1E-03		
				Mercury	1E+00	mg/kg	6.5E-09	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-04	mg/kg-day	2.3E-03		
				Thallium	2E+00	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	4.5E-07	mg/kg-day	8.0E-05	mg/kg-day	5.6E-03		
				Vanadium	3E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	1.0E-03	mg/kg-day	7.5E-03		
				Zinc	2E+04	mg/kg	1.3E-04	mg/kg-day	N/A	N/A	N/A	4.5E-03	mg/kg-day	3.0E-01	mg/kg-day	1.5E-02		
				Exp. Route Total								5E-07					8E-02	
		Dermal	Arsenic	4E+01	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.5E-07	3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02			
			Cadmium	2E-01	mg/kg	1.4E-10	mg/kg-day	N/A	N/A	N/A	5.0E-09	mg/kg-day	2.5E-05	mg/kg-day	2.0E-04			
			Exp. Route Total							2E-07					1E-02			
		Exposure Point Total								6E-07					9E-02			
Exposure Medium Total								N/A					N/A					
Medium Total								N/A					N/A					
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A			

TABLE 3-7.5.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion	4,4'-DDD	7E-03	mg/kg	6.0E-08	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	1.4E-08	7.0E-07	mg/kg-day	2.0E-03	mg/kg-day	3.5E-04		
				4,4'-DDE	2E-02	mg/kg	1.4E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	4.8E-08	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	5.5E-03		
				4,4'-DDT	3E-03	mg/kg	2.5E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	8.6E-09	3.0E-07	mg/kg-day	5.0E-04	mg/kg-day	5.9E-04		
				Aldrin	3E-04	mg/kg	2.9E-09	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	4.9E-08	3.4E-08	mg/kg-day	3.0E-05	mg/kg-day	1.1E-03		
				alpha-Chlordane	6E-03	mg/kg	5.2E-08	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	1.8E-08	6.0E-07	mg/kg-day	5.0E-04	mg/kg-day	1.2E-03		
				Aroclor-1254	2E-02	mg/kg	2.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	3.9E-07	2.3E-06	mg/kg-day	2.0E-05	mg/kg-day	1.1E-01		
				Aroclor-1260	6E-02	mg/kg	5.6E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.1E-06	6.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.3E-01		
				delta-BHC	6E-04	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	6.1E-08	mg/kg-day	3.0E-04	mg/kg-day	2.0E-04		
				Dieldrin	2E-03	mg/kg	2.0E-08	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	3.2E-07	2.3E-07	mg/kg-day	5.0E-05	mg/kg-day	4.7E-03		
				Heptachlor epoxide	8E-04	mg/kg	7.6E-09	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	6.9E-08	8.9E-08	mg/kg-day	1.3E-05	mg/kg-day	6.8E-03		
				Antimony	9E-02	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	4.0E-04	mg/kg-day	2.5E-02		
				Lead														
				Mercury	4E-01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.0E-04	mg/kg-day	3.8E-01		
				Selenium	6E-01	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	5.0E-03	mg/kg-day	1.2E-02		
				Exp. Route Total								2E-06						
				Exposure Point Total								2E-06					9E-01	
				Fillet, Reaches 4 and 5	Ingestion	4,4'-DDD	2E-02	mg/kg	1.4E-07	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	3.4E-08	1.7E-06	mg/kg-day	2.0E-03	mg/kg-day	8.3E-04
						4,4'-DDE	9E-02	mg/kg	7.7E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	2.6E-07	9.0E-06	mg/kg-day	3.0E-04	mg/kg-day	3.0E-02
						4,4'-DDT	8E-03	mg/kg	7.2E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	2.5E-08	8.5E-07	mg/kg-day	5.0E-04	mg/kg-day	1.7E-03
						Aldrin	5E-04	mg/kg	4.8E-09	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03
						alpha-Chlordane	3E-03	mg/kg	2.3E-08	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	8.0E-09	2.7E-07	mg/kg-day	5.0E-04	mg/kg-day	5.3E-04
				Aroclor-1254	9E-02	mg/kg	7.7E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.5E-06	9.0E-06	mg/kg-day	2.0E-05	mg/kg-day	4.5E-01		
				Aroclor-1260	2E-01	mg/kg	1.7E-06	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	3.4E-06	2.0E-05	mg/kg-day	2.0E-05	mg/kg-day	9.9E-01		
				Dieldrin	2E-03	mg/kg	1.3E-08	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	2.2E-07	1.6E-07	mg/kg-day	5.0E-05	mg/kg-day	3.1E-03		
				Antimony	8E-02	mg/kg	6.9E-07	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.0E-02		
				Lead														
				Mercury	3E-01	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-04	mg/kg-day	3.2E-01		
				Selenium	7E-01	mg/kg	6.1E-06	mg/kg-day	N/A	N/A	N/A	7.1E-05	mg/kg-day	5.0E-03	mg/kg-day	1.4E-02		
											6E-06							
											6E-06							
											6E-06							
											6E-06							

TABLE 3-7.5.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	1.8E-07	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	4.3E-08	2.1E-06	mg/kg-day	2.0E-03	mg/kg-day	1.0E-03		
				4,4'-DDE	6E-02	mg/kg	5.2E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.8E-07	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02		
				4,4'-DDT	5E-03	mg/kg	4.2E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.4E-08	4.9E-07	mg/kg-day	5.0E-04	mg/kg-day	9.8E-04		
				Aldrin	5E-04	mg/kg	4.8E-09	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03		
				alpha-Chlordane	8E-03	mg/kg	7.5E-08	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	2.6E-08	8.8E-07	mg/kg-day	5.0E-04	mg/kg-day	1.8E-03		
				Aroclor-1248	8E-03	mg/kg	7.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-07	8.3E-07	mg/kg-day	2.0E-05	mg/kg-day	4.1E-02		
				Aroclor-1254	1E-01	mg/kg	1.1E-06	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.3E-06	1.3E-05	mg/kg-day	2.0E-05	mg/kg-day	6.7E-01		
				Aroclor-1260	8E-02	mg/kg	7.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-06	8.2E-06	mg/kg-day	2.0E-05	mg/kg-day	4.1E-01		
				Dieldrin	2E-03	mg/kg	2.1E-08	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	3.3E-07	2.4E-07	mg/kg-day	5.0E-05	mg/kg-day	4.8E-03		
				Heptachlor epoxide	5E-04	mg/kg	4.8E-09	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.3E-08	5.6E-08	mg/kg-day	1.3E-05	mg/kg-day	4.3E-03		
				Arsenic	2E-01	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-06	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.5E-02		
				Lead														
				Mercury	2E-01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-04	mg/kg-day	2.1E-01		
				Selenium	6E-01	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	6.5E-05	mg/kg-day	5.0E-03	mg/kg-day	1.3E-02		
							Exp. Route Total							7E-06				
		Exposure Point Total								7E-06					1E+00			
	Exposure Medium Total									N/A					N/A			
Medium Total										N/A					N/A			
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A			

TABLE 3-7.5.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion	4,4'-DDD	7E-03	mg/kg	7.7E-09	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	1.8E-09	2.7E-07	mg/kg-day	2.0E-03	mg/kg-day	1.3E-04				
				4,4'-DDE	2E-02	mg/kg	1.8E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	6.2E-09	6.4E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03				
				4,4'-DDT	3E-03	mg/kg	3.2E-09	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.1E-09	1.1E-07	mg/kg-day	5.0E-04	mg/kg-day	2.3E-04				
				Aldrin	3E-04	mg/kg	3.7E-10	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	6.3E-09	1.3E-08	mg/kg-day	3.0E-05	mg/kg-day	4.3E-04				
				alpha-Chlordane	6E-03	mg/kg	6.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	2.3E-09	2.3E-07	mg/kg-day	5.0E-04	mg/kg-day	4.7E-04				
				Aroclor-1254	2E-02	mg/kg	2.5E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.5E-08	8.8E-07	mg/kg-day	2.0E-05	mg/kg-day	4.4E-02				
				Aroclor-1260	6E-02	mg/kg	7.2E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	7.2E-08	2.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.3E-01				
				delta-BHC	5E-04	mg/kg	6.2E-10	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	3.0E-04	mg/kg-day	7.3E-05				
				Dieldrin	2E-03	mg/kg	2.6E-09	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	4.1E-08	9.0E-08	mg/kg-day	5.0E-05	mg/kg-day	1.8E-03				
				Heptachlor epoxide	8E-04	mg/kg	9.8E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	8.9E-09	3.4E-08	mg/kg-day	1.3E-05	mg/kg-day	2.6E-03				
				Antimony	9E-02	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	4.0E-04	mg/kg-day	9.6E-03				
				Lead																
				Mercury	4E-01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-04	mg/kg-day	1.5E-01				
				Selenium	6E-01	mg/kg	6.6E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	5.0E-03	mg/kg-day	4.6E-03				
						Exp. Route Total								2E-07					3E-01	
						Exposure Point Total								2E-07						3E-01
						Fillet, Reaches 4 and 5	Ingestion	4,4'-DDD	2E-02	mg/kg	1.8E-08	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	4.4E-09	6.4E-07	mg/kg-day	2.0E-03	mg/kg-day	3.2E-04
								4,4'-DDE	9E-02	mg/kg	9.9E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	3.4E-08	3.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
								4,4'-DDT	8E-03	mg/kg	9.3E-09	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	3.2E-09	3.3E-07	mg/kg-day	5.0E-04	mg/kg-day	6.5E-04
				Aldrin	5E-04			mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04		
		alpha-Chlordane	3E-03	mg/kg	2.9E-09			mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	1.0E-09	1.0E-07	mg/kg-day	5.0E-04	mg/kg-day	2.0E-04				
		Aroclor-1254	9E-02	mg/kg	9.9E-08			mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.9E-08	3.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.7E-01				
		Aroclor-1260	2E-01	mg/kg	2.2E-07			mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.2E-07	7.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.8E-01				
		Dieldrin	1E-03	mg/kg	1.7E-09			mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	2.7E-08	5.9E-08	mg/kg-day	5.0E-05	mg/kg-day	1.2E-03				
		Antimony	8E-02	mg/kg	8.8E-08			mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	4.0E-04	mg/kg-day	7.7E-03				
		Lead																		
		Mercury	3E-01	mg/kg	3.5E-07			mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-04	mg/kg-day	1.2E-01				
		Selenium	7E-01	mg/kg	7.8E-07			mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	5.0E-03	mg/kg-day	5.5E-03				
		Exp. Route Total										4E-07					7E-01			
		Exposure Point Total										4E-07					7E-01			

TABLE 3-7.5.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Older Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	2.3E-08	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	5.5E-09	8.1E-07	mg/kg-day	2.0E-03	mg/kg-day	4.0E-04	
				4,4'-DDE	6E-02	mg/kg	6.7E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	2.3E-08	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	7.8E-03	
				4,4'-DDT	5E-03	mg/kg	5.4E-09	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.8E-09	1.9E-07	mg/kg-day	5.0E-04	mg/kg-day	3.8E-04	
				Aldrin	5E-04	mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04	
				alpha-Chlordane	8E-03	mg/kg	9.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	3.4E-09	3.4E-07	mg/kg-day	5.0E-04	mg/kg-day	6.7E-04	
				Aroclor-1248	8E-03	mg/kg	9.1E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.1E-09	3.2E-07	mg/kg-day	2.0E-05	mg/kg-day	1.6E-02	
				Aroclor-1254	1E-01	mg/kg	1.5E-07	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.5E-07	5.2E-06	mg/kg-day	2.0E-05	mg/kg-day	2.6E-01	
				Aroclor-1260	8E-02	mg/kg	9.0E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.0E-08	3.2E-06	mg/kg-day	2.0E-05	mg/kg-day	1.6E-01	
				Dieldrin	2E-03	mg/kg	2.5E-09	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	3.9E-08	8.6E-08	mg/kg-day	5.0E-05	mg/kg-day	1.7E-03	
				Heptachlor epoxide	5E-04	mg/kg	6.1E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	5.6E-09	2.1E-08	mg/kg-day	1.3E-05	mg/kg-day	1.6E-03	
				Arsenic	2E-01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-07	6.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02	
				Lead													
				Mercury	1E-01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	1.0E-04	mg/kg-day	5.9E-02	
				Selenium	6E-01	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	5.0E-03	mg/kg-day	5.0E-03	
			Exp. Route Total							6E-07				5E-01			
		Exposure Point Total								6E-07				5E-01			
	Exposure Medium Total									N/A				N/A			
Medium Total										N/A				N/A			
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A		

TABLE 3-7.6.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion	4,4'-DDD	7E-03	mg/kg	6.0E-08	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	1.4E-08	7.0E-07	mg/kg-day	2.0E-03	mg/kg-day	3.5E-04				
				4,4'-DDE	2E-02	mg/kg	1.4E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	4.8E-08	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	5.5E-03				
				4,4'-DDT	3E-03	mg/kg	2.5E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	8.6E-09	3.0E-07	mg/kg-day	5.0E-04	mg/kg-day	5.9E-04				
				Aldrin	3E-04	mg/kg	2.9E-09	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	4.9E-08	3.4E-08	mg/kg-day	3.0E-05	mg/kg-day	1.1E-03				
				alpha-Chlordane	6E-03	mg/kg	5.2E-08	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	1.8E-08	6.0E-07	mg/kg-day	5.0E-04	mg/kg-day	1.2E-03				
				Aroclor-1254	2E-02	mg/kg	2.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	3.9E-07	2.3E-06	mg/kg-day	2.0E-05	mg/kg-day	1.1E-01				
				Aroclor-1260	6E-02	mg/kg	5.6E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.1E-06	6.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.3E-01				
				delta-BHC	6E-04	mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	6.1E-08	mg/kg-day	3.0E-04	mg/kg-day	2.0E-04				
				Dieldrin	2E-03	mg/kg	2.0E-08	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	3.2E-07	2.3E-07	mg/kg-day	5.0E-05	mg/kg-day	4.7E-03				
				Heptachlor epoxide	8E-04	mg/kg	7.6E-09	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	6.9E-08	8.9E-08	mg/kg-day	1.3E-05	mg/kg-day	6.8E-03				
				Antimony	9E-02	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	4.0E-04	mg/kg-day	2.5E-02				
				Lead																
				Mercury	4E-01	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.0E-04	mg/kg-day	3.8E-01				
				Selenium	6E-01	mg/kg	5.2E-06	mg/kg-day	N/A	N/A	N/A	6.0E-05	mg/kg-day	5.0E-03	mg/kg-day	1.2E-02				
						Exp. Route Total								2E-06					9E-01	
						Exposure Point Total								2E-06						9E-01
						Fillet, Reaches 4 and 5	Ingestion	4,4'-DDD	2E-02	mg/kg	1.4E-07	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	3.4E-08	1.7E-06	mg/kg-day	2.0E-03	mg/kg-day	8.3E-04
								4,4'-DDE	9E-02	mg/kg	7.7E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	2.6E-07	9.0E-06	mg/kg-day	3.0E-04	mg/kg-day	3.0E-02
								4,4'-DDT	8E-03	mg/kg	7.2E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	2.5E-08	8.5E-07	mg/kg-day	5.0E-04	mg/kg-day	1.7E-03
		Aldrin	5E-04					mg/kg	4.8E-09	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03		
		alpha-Chlordane	3E-03					mg/kg	2.3E-08	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	8.0E-09	2.7E-07	mg/kg-day	5.0E-04	mg/kg-day	5.3E-04		
Aroclor-1254	9E-02	mg/kg	7.7E-07					mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.5E-06	9.0E-06	mg/kg-day	2.0E-05	mg/kg-day	4.5E-01				
Aroclor-1260	2E-01	mg/kg	1.7E-06					mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	3.4E-06	2.0E-05	mg/kg-day	2.0E-05	mg/kg-day	9.9E-01				
Dieldrin	2E-03	mg/kg	1.3E-08					mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	2.2E-07	1.6E-07	mg/kg-day	5.0E-05	mg/kg-day	3.1E-03				
Antimony	8E-02	mg/kg	6.9E-07					mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	4.0E-04	mg/kg-day	2.0E-02				
Lead																				
Mercury	3E-01	mg/kg	2.7E-06					mg/kg-day	N/A	N/A	N/A	3.2E-05	mg/kg-day	1.0E-04	mg/kg-day	3.2E-01				
Selenium	7E-01	mg/kg	6.1E-06					mg/kg-day	N/A	N/A	N/A	7.1E-05	mg/kg-day	5.0E-03	mg/kg-day	1.4E-02				
		Exp. Route Total												6E-06					2E+00	
		Exposure Point Total												6E-06					2E+00	

TABLE 3-7.6.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	1.8E-07	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	4.3E-08	2.1E-06	mg/kg-day	2.0E-03	mg/kg-day	1.0E-03	
				4,4'-DDE	6E-02	mg/kg	5.2E-07	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.8E-07	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02	
				4,4'-DDT	5E-03	mg/kg	4.2E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.4E-08	4.9E-07	mg/kg-day	5.0E-04	mg/kg-day	9.8E-04	
				Aldrin	5E-04	mg/kg	4.8E-09	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	8.1E-08	5.6E-08	mg/kg-day	3.0E-05	mg/kg-day	1.9E-03	
				alpha-Chlordane	8E-03	mg/kg	7.5E-08	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	2.6E-08	8.8E-07	mg/kg-day	5.0E-04	mg/kg-day	1.8E-03	
				Aroclor-1248	8E-03	mg/kg	7.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-07	8.3E-07	mg/kg-day	2.0E-05	mg/kg-day	4.1E-02	
				Aroclor-1254	1E-01	mg/kg	1.1E-06	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	2.3E-06	1.3E-05	mg/kg-day	2.0E-05	mg/kg-day	6.7E-01	
				Aroclor-1260	8E-02	mg/kg	7.0E-07	mg/kg-day	2.0E+00	(mg/kg-day) ⁻¹	1.4E-06	8.2E-06	mg/kg-day	2.0E-05	mg/kg-day	4.1E-01	
				Dieldrin	2E-03	mg/kg	2.1E-08	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	3.3E-07	2.4E-07	mg/kg-day	5.0E-05	mg/kg-day	4.8E-03	
				Heptachlor epoxide	5E-04	mg/kg	4.8E-09	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	4.3E-08	5.6E-08	mg/kg-day	1.3E-05	mg/kg-day	4.3E-03	
				Arsenic	2E-01	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-06	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.5E-02	
				Lead													
				Mercury	2E-01	mg/kg	1.8E-06	mg/kg-day	N/A	N/A	N/A	2.1E-05	mg/kg-day	1.0E-04	mg/kg-day	2.1E-01	
				Selenium	6E-01	mg/kg	5.6E-06	mg/kg-day	N/A	N/A	N/A	6.5E-05	mg/kg-day	5.0E-03	mg/kg-day	1.3E-02	
							Exp. Route Total							7E-06			
		Exposure Point Total								7E-06					1E+00		
	Exposure Medium Total									N/A					N/A		
Medium Total										N/A					N/A		
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A		

TABLE 3-7.6.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water	Fish Fillet Tissue	Fillet, Reach 3	Ingestion	4,4'-DDD	7E-03	mg/kg	7.7E-09	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	1.8E-09	2.7E-07	mg/kg-day	2.0E-03	mg/kg-day	1.3E-04		
				4,4'-DDE	2E-02	mg/kg	1.8E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	6.2E-09	6.4E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03		
				4,4'-DDT	3E-03	mg/kg	3.2E-09	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.1E-09	1.1E-07	mg/kg-day	5.0E-04	mg/kg-day	2.3E-04		
				Aldrin	3E-04	mg/kg	3.7E-10	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	6.3E-09	1.3E-08	mg/kg-day	3.0E-05	mg/kg-day	4.3E-04		
				alpha-Chlordane	6E-03	mg/kg	6.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	2.3E-09	2.3E-07	mg/kg-day	5.0E-04	mg/kg-day	4.7E-04		
				Aroclor-1254	2E-02	mg/kg	2.5E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.5E-08	8.8E-07	mg/kg-day	2.0E-05	mg/kg-day	4.4E-02		
				Aroclor-1260	6E-02	mg/kg	7.2E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	7.2E-08	2.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.3E-01		
				delta-BHC	5E-04	mg/kg	6.2E-10	mg/kg-day	N/A	N/A	N/A	2.2E-08	mg/kg-day	3.0E-04	mg/kg-day	7.3E-05		
				Dieldrin	2E-03	mg/kg	2.6E-09	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	4.1E-08	9.0E-08	mg/kg-day	5.0E-05	mg/kg-day	1.8E-03		
				Heptachlor epoxide	8E-04	mg/kg	9.8E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	8.9E-09	3.4E-08	mg/kg-day	1.3E-05	mg/kg-day	2.6E-03		
				Antimony	9E-02	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	4.0E-04	mg/kg-day	9.6E-03		
				Lead														
				Mercury	4E-01	mg/kg	4.2E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-04	mg/kg-day	1.5E-01		
		Selenium	6E-01	mg/kg	6.6E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	5.0E-03	mg/kg-day	4.6E-03				
					Exp. Route Total							2E-07					3E-01	
				Exposure Point Total								2E-07					3E-01	
				Fillet, Reaches 4 and 5	Ingestion	4,4'-DDD	2E-02	mg/kg	1.8E-08	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	4.4E-09	6.4E-07	mg/kg-day	2.0E-03	mg/kg-day	3.2E-04
		4,4'-DDE	9E-02			mg/kg	9.9E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	3.4E-08	3.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02		
		4,4'-DDT	8E-03			mg/kg	9.3E-09	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	3.2E-09	3.3E-07	mg/kg-day	5.0E-04	mg/kg-day	6.5E-04		
		Aldrin	5E-04			mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04		
		alpha-Chlordane	3E-03			mg/kg	2.9E-09	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	1.0E-09	1.0E-07	mg/kg-day	5.0E-04	mg/kg-day	2.0E-04		
Aroclor-1254	9E-02	mg/kg	9.9E-08			mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.9E-08	3.5E-06	mg/kg-day	2.0E-05	mg/kg-day	1.7E-01				
Aroclor-1260	2E-01	mg/kg	2.2E-07			mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	2.2E-07	7.6E-06	mg/kg-day	2.0E-05	mg/kg-day	3.8E-01				
Dieldrin	1E-03	mg/kg	1.7E-09			mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	2.7E-08	5.9E-08	mg/kg-day	5.0E-05	mg/kg-day	1.2E-03				
Antimony	8E-02	mg/kg	8.8E-08			mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	4.0E-04	mg/kg-day	7.7E-03				
Lead																		
Mercury	3E-01	mg/kg	3.5E-07			mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-04	mg/kg-day	1.2E-01				
Selenium	7E-01	mg/kg	7.8E-07			mg/kg-day	N/A	N/A	N/A	2.7E-05	mg/kg-day	5.0E-03	mg/kg-day	5.5E-03				
			Exp. Route Total									4E-07					7E-01	
		Exposure Point Total								4E-07					7E-01			

TABLE 3-7.6.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Fish Fillet Tissue (cont.)	Fillet, Reach 6	Ingestion	4,4'-DDD	2E-02	mg/kg	2.3E-08	mg/kg-day	2.4E-01	(mg/kg-day) ⁻¹	5.5E-09	8.1E-07	mg/kg-day	2.0E-03	mg/kg-day	4.0E-04	
				4,4'-DDE	6E-02	mg/kg	6.7E-08	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	2.3E-08	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	7.8E-03	
				4,4'-DDT	5E-03	mg/kg	5.4E-09	mg/kg-day	3.4E-01	(mg/kg-day) ⁻¹	1.8E-09	1.9E-07	mg/kg-day	5.0E-04	mg/kg-day	3.8E-04	
				Aldrin	5E-04	mg/kg	6.1E-10	mg/kg-day	1.7E+01	(mg/kg-day) ⁻¹	1.0E-08	2.1E-08	mg/kg-day	3.0E-05	mg/kg-day	7.1E-04	
				alpha-Chlordane	8E-03	mg/kg	9.6E-09	mg/kg-day	3.5E-01	(mg/kg-day) ⁻¹	3.4E-09	3.4E-07	mg/kg-day	5.0E-04	mg/kg-day	6.7E-04	
				Aroclor-1248	8E-03	mg/kg	9.1E-09	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.1E-09	3.2E-07	mg/kg-day	2.0E-05	mg/kg-day	1.6E-02	
				Aroclor-1254	1E-01	mg/kg	1.5E-07	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	1.5E-07	5.2E-06	mg/kg-day	2.0E-05	mg/kg-day	2.6E-01	
				Aroclor-1260	8E-02	mg/kg	9.0E-08	mg/kg-day	1.0E+00	(mg/kg-day) ⁻¹	9.0E-08	3.2E-06	mg/kg-day	2.0E-05	mg/kg-day	1.6E-01	
				Dieldrin	2E-03	mg/kg	2.5E-09	mg/kg-day	1.6E+01	(mg/kg-day) ⁻¹	3.9E-08	8.6E-08	mg/kg-day	5.0E-05	mg/kg-day	1.7E-03	
				Heptachlor epoxide	5E-04	mg/kg	6.1E-10	mg/kg-day	9.1E+00	(mg/kg-day) ⁻¹	5.6E-09	2.1E-08	mg/kg-day	1.3E-05	mg/kg-day	1.6E-03	
				Arsenic	2E-01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.7E-07	6.3E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02	
				Lead													
				Mercury	1E-01	mg/kg	1.7E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	1.0E-04	mg/kg-day	5.9E-02	
				Selenium	6E-01	mg/kg	7.2E-07	mg/kg-day	N/A	N/A	N/A	2.5E-05	mg/kg-day	5.0E-03	mg/kg-day	5.0E-03	
			Exp. Route Total							6E-07				5E-01			
		Exposure Point Total								6E-07				5E-01			
	Exposure Medium Total									N/A				N/A			
Medium Total										N/A				N/A			
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A		

TABLE 3-7.7.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units			
Surface Water	Surface Water	AJRW (Reach 5)	Dermal	Chloroform	1E+00	ug/L	7.9E-08	mg/kg-day	N/A	N/A	N/A	2.3E-07	mg/kg-day	1.0E-02	mg/kg-day	2.3E-05
				Tetrachloroethene	2E+00	ug/L	1.0E-06	mg/kg-day	5.4E-01	(mg/kg-day) ⁻¹	5.6E-07	3.0E-06	mg/kg-day	1.0E-02	mg/kg-day	3.0E-04
				Chromium VI	9E-01	ug/L	1.0E-08	mg/kg-day	N/A	N/A	N/A	3.0E-08	mg/kg-day	7.5E-05	mg/kg-day	3.9E-04
				Manganese	3E+02	ug/L	1.9E-06	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03
				Exp. Route Total								6E-07				
		Exposure Point Total							6E-07						3E-03	
		Exposure Medium Total							N/A						N/A	
Sediment	Sediment	AJRW	Ingestion	Arsenic	2E+01	mg/kg	9.9E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	7.7E-07	2.9E-06	mg/kg-day	5.9E-04	mg/kg-day	4.9E-03
				Lead												
				Manganese	2E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	7.0E-02	mg/kg-day	5.1E-04
				Mercury	7E-01	mg/kg	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	1.0E-04	mg/kg-day	1.1E-03
			Exp. Route Total								8E-07					
		Dermal	Arsenic	2E+01	mg/kg	2.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.6E-07	6.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.3E-03	
Exp. Route Total									4E-07					2E-03		
		Exposure Point Total							1E-06						9E-03	
		Exposure Medium Total							N/A						N/A	
Soil	Surface Soil	AJRW	Ingestion	Arsenic	7E+01	mg/kg	3.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.3E-06	1.0E-05	mg/kg-day	3.0E-04	mg/kg-day	3.4E-02
				Chromium III	5E+01	mg/kg	2.8E-06	mg/kg-day	N/A	N/A	N/A	8.2E-06	mg/kg-day	1.5E+00	mg/kg-day	5.4E-06
				Lead												
				Manganese	4E+02	mg/kg	1.8E-05	mg/kg-day	N/A	N/A	N/A	5.4E-05	mg/kg-day	7.0E-02	mg/kg-day	7.7E-04
				Mercury	7E-01	mg/kg	3.4E-08	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	1.0E-04	mg/kg-day	1.0E-03
		Vanadium	5E+01	mg/kg	2.7E-06	mg/kg-day	N/A	N/A	N/A	8.0E-06	mg/kg-day	1.0E-03	mg/kg-day	8.0E-03		
		Exp. Route Total							5E-06						4E-02	
		Dermal	Arsenic	7E+01	mg/kg	8.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-06	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	8.2E-03	
Exp. Route Total									1E-06					8E-03		
		Exposure Point Total							7E-06						5E-02	
		Exposure Medium Total							N/A						N/A	
Medium Total									N/A						N/A	
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A	

TABLE 3-7.8.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water	Surface Water	AJRW (Reach 5)	Dermal	Chloroform	1E+00	ug/L	4.5E-08	mg/kg-day	N/A	N/A	N/A	5.2E-07	mg/kg-day	1.0E-02	mg/kg-day	5.2E-05	
				Tetrachloroethene	2E+00	ug/L	5.9E-07	mg/kg-day	5.4E-01	(mg/kg-day) ⁻¹	3.2E-07	6.9E-06	mg/kg-day	1.0E-02	mg/kg-day	6.9E-04	
				Chromium VI	9E-01	ug/L	5.8E-09	mg/kg-day	N/A	N/A	N/A	6.8E-08	mg/kg-day	7.5E-05	mg/kg-day	9.0E-04	
				Manganese	3E+02	ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.6E-03	
				Exp. Route Total													
		Exposure Point Total														6E-03	
		Exposure Medium Total														N/A	
Sediment	Sediment	AJRW	Ingestion	Arsenic	2E+01	mg/kg	2.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.8E-06	2.7E-05	mg/kg-day	5.9E-04	mg/kg-day	4.6E-02	
				Lead													
				Manganese	2E+02	mg/kg	2.8E-05	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	7.0E-02	mg/kg-day	4.7E-03	
				Mercury	7E-01	mg/kg	8.5E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02	
				Exp. Route Total													
		Dermal	Arsenic	2E+01	mg/kg	3.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.8E-07	4.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.5E-02		
		Exp. Route Total													2E-02		
		Exposure Point Total														8E-02	
		Exposure Medium Total														N/A	
Soil	Surface Soil	AJRW	Ingestion	Arsenic	7E+01	mg/kg	8.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-05	9.6E-05	mg/kg-day	3.0E-04	mg/kg-day	3.2E-01	
				Chromium III	5E+01	mg/kg	6.5E-06	mg/kg-day	N/A	N/A	N/A	7.6E-05	mg/kg-day	1.5E+00	mg/kg-day	5.1E-05	
				Lead													
				Manganese	4E+02	mg/kg	4.3E-05	mg/kg-day	N/A	N/A	N/A	5.0E-04	mg/kg-day	7.0E-02	mg/kg-day	7.2E-03	
				Mercury	7E-01	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	1.0E-04	mg/kg-day	9.4E-03	
		Vanadium	5E+01	mg/kg	6.4E-06	mg/kg-day	N/A	N/A	N/A	7.4E-05	mg/kg-day	1.0E-03	mg/kg-day	7.4E-02			
		Exp. Route Total													4E-01		
		Dermal	Arsenic	7E+01	mg/kg	1.4E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-06	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.4E-02		
		Exp. Route Total													5E-02		
		Exposure Point Total														5E-01	
		Exposure Medium Total														N/A	
Medium Total																N/A	
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media					N/A	

TABLE 3-7.8.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations							
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient			
							Value	Units	Value	Units		Value	Units						
Surface Water	Surface Water	AJRW (Reach 5)	Dermal	Chloroform	1E+00	ug/L	3.5E-09	mg/kg-day	N/A	N/A	N/A	1.2E-07	mg/kg-day	1.0E-02	mg/kg-day	1.2E-05			
				Tetrachloroethene	2E+00	ug/L	4.6E-08	mg/kg-day	5.4E-01	(mg/kg-day) ⁻¹	2.5E-08	1.6E-06	mg/kg-day	1.0E-02	mg/kg-day	1.6E-04			
				Chromium VI	9E-01	ug/L	3.2E-10	mg/kg-day	N/A	N/A	N/A	1.1E-08	mg/kg-day	7.5E-05	mg/kg-day	1.5E-04			
				Manganese	3E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	2.8E-03	mg/kg-day	7.6E-04			
				Exp. Route Total								2E-08				1E-03			
			Exposure Point Total								2E-08				1E-03				
			Exposure Medium Total								N/A				N/A				
			Sediment	Sediment	AJRW	Ingestion	Arsenic	2E+01	mg/kg	1.3E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	9.9E-08	4.5E-06	mg/kg-day	5.9E-04	mg/kg-day	7.6E-03
							Lead												
							Manganese	2E+02	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.5E-05	mg/kg-day	7.0E-02	mg/kg-day	7.9E-04
Mercury	7E-01	mg/kg					4.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	1.0E-04	mg/kg-day	1.7E-03			
Exp. Route Total											1E-07				1E-02				
Dermal	Arsenic	2E+01				mg/kg	4.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.5E-08	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.1E-03			
Exp. Route Total								6E-08				5E-03							
Exposure Point Total								2E-07				2E-02							
Exposure Medium Total								N/A				N/A							
Soil	Surface Soil	AJRW	Ingestion	Arsenic	7E+01	mg/kg	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.8E-07	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	5.3E-02			
				Chromium III	5E+01	mg/kg	3.6E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.5E+00	mg/kg-day	8.5E-06			
				Lead															
				Manganese	4E+02	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	7.0E-02	mg/kg-day	1.2E-03			
				Mercury	7E-01	mg/kg	4.5E-09	mg/kg-day	N/A	N/A	N/A	1.6E-07	mg/kg-day	1.0E-04	mg/kg-day	1.6E-03			
			Vanadium	5E+01	mg/kg	3.5E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	1.2E-02				
			Exp. Route Total								7E-07				7E-02				
			Dermal	Arsenic	7E+01	mg/kg	1.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.3E-07	5.4E-06	mg/kg-day	3.0E-04	mg/kg-day	1.8E-02			
			Exp. Route Total								2E-07				2E-02				
			Exposure Point Total								9E-07				9E-02				
Exposure Medium Total								N/A				N/A							
Medium Total								N/A				N/A							
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media					N/A			

TABLE 3-7.9.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units			
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal	Arsenic	2E+01	ug/L	4.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.1E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.6E-04
				Chromium VI	1E+01	ug/L	3.8E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03
				Manganese	6E+02	ug/L	1.3E-06	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.8E-03	mg/kg-day	1.3E-03
				Mercury	6E-02	ug/L	1.3E-10	mg/kg-day	N/A	N/A	N/A	3.8E-10	mg/kg-day	2.1E-05	mg/kg-day	1.8E-05
				Exp. Route Total								7E-08				
		Exposure Point Total								7E-08						3E-03
		SW-05 - 52 days	Dermal	Arsenic	2E+01	ug/L	9.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	2.8E-07	mg/kg-day	3.0E-04	mg/kg-day	9.2E-04
				Chromium VI	1E+01	ug/L	7.6E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	3.0E-03
				Manganese	6E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.5E-06	mg/kg-day	2.8E-03	mg/kg-day	2.7E-03
				Mercury	6E-02	ug/L	2.6E-10	mg/kg-day	N/A	N/A	N/A	7.5E-10	mg/kg-day	2.1E-05	mg/kg-day	3.6E-05
				Exp. Route Total								1E-07				
		Exposure Point Total								1E-07						7E-03
		SW-05 - 78 days	Dermal	Arsenic	2E+01	ug/L	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.1E-07	4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03
				Chromium VI	1E+01	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.3E-07	mg/kg-day	7.5E-05	mg/kg-day	4.4E-03
				Manganese	6E+02	ug/L	3.9E-06	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	2.8E-03	mg/kg-day	4.0E-03
				Mercury	6E-02	ug/L	3.9E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	5.4E-05
				Exp. Route Total								2E-07				
		Exposure Point Total								2E-07						1E-02
		SW-05 - 104 days	Dermal	Arsenic	2E+01	ug/L	1.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.8E-07	5.5E-07	mg/kg-day	3.0E-04	mg/kg-day	1.8E-03
				Chromium VI	1E+01	ug/L	1.5E-07	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	7.5E-05	mg/kg-day	5.9E-03
				Manganese	6E+02	ug/L	5.2E-06	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	2.8E-03	mg/kg-day	5.4E-03
				Mercury	6E-02	ug/L	5.2E-10	mg/kg-day	N/A	N/A	N/A	1.5E-09	mg/kg-day	2.1E-05	mg/kg-day	7.2E-05
				Exp. Route Total								3E-07				
		Exposure Point Total								3E-07						1E-02
SW-06 - 26 days	Dermal	Arsenic	1E+01	ug/L	2.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.3E-08	8.3E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04		
		Chromium VI	6E+00	ug/L	2.5E-08	mg/kg-day	N/A	N/A	N/A	7.3E-08	mg/kg-day	7.5E-05	mg/kg-day	9.8E-04		
		Manganese	6E+02	ug/L	1.2E-06	mg/kg-day	N/A	N/A	N/A	3.4E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03		
		Exp. Route Total								4E-08					2E-03	
		Exposure Point Total								4E-08						2E-03

TABLE 3-7.9.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units					
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-06 - 78 days	Dermal	Arsenic	1E+01	ug/L	8.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-07	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	8.3E-04		
				Chromium VI	6E+00	ug/L	7.5E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	2.9E-03		
				Manganese	6E+02	ug/L	3.5E-06	mg/kg-day	N/A	N/A	N/A	1.0E-05	mg/kg-day	2.8E-03	mg/kg-day	3.6E-03		
				Exp. Route Total														
				Exposure Point Total														
		SW-06 - 104 days	Dermal	Arsenic	1E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.7E-07	3.3E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03		
				Chromium VI	6E+00	ug/L	1.0E-07	mg/kg-day	N/A	N/A	N/A	2.9E-07	mg/kg-day	7.5E-05	mg/kg-day	3.9E-03		
				Manganese	6E+02	ug/L	4.6E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03		
				Exp. Route Total														
				Exposure Point Total														
		SW-07 - 26 days	Dermal	Arsenic	6E+00	ug/L	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-08	3.7E-08	mg/kg-day	3.0E-04	mg/kg-day	1.2E-04		
				Manganese	4E+02	ug/L	8.8E-07	mg/kg-day	N/A	N/A	N/A	2.6E-06	mg/kg-day	2.8E-03	mg/kg-day	9.1E-04		
						Exp. Route Total												
				Exposure Point Total														
		SW-07 - 78 days	Dermal	Arsenic	6E+00	ug/L	3.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.7E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.7E-04		
				Manganese	4E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.7E-03		
						Exp. Route Total												
				Exposure Point Total														
		SW-08 - 78 days	Dermal	Arsenic	5E+00	ug/L	2.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.0E-08	7.8E-08	mg/kg-day	3.0E-04	mg/kg-day	2.6E-04		
				Manganese	3E+02	ug/L	1.8E-06	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03		
						Exp. Route Total												
				Exposure Point Total														
		SW-09 - 78 days	Dermal	Arsenic	3E+00	ug/L	1.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.4E-08	4.7E-08	mg/kg-day	3.0E-04	mg/kg-day	1.6E-04		
				Manganese	6E+01	ug/L	3.4E-07	mg/kg-day	N/A	N/A	N/A	9.9E-07	mg/kg-day	2.8E-03	mg/kg-day	3.6E-04		
				Exp. Route Total														
		Exposure Point Total																

TABLE 3-7.9.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-10 - 39 days	Ingestion	Arsenic	2E+00	ug/L	4.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.0E-08	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Mercury	2E-01	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	3.0E-04	mg/kg-day	5.5E-05
			Exp. Route Total								7E-08					5E-04
			Dermal	Arsenic	2E+00	ug/L	1.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.5E-08	4.9E-08	mg/kg-day	3.0E-04	mg/kg-day	1.6E-04
				Mercury	2E-01	ug/L	2.1E-09	mg/kg-day	N/A	N/A	N/A	6.0E-09	mg/kg-day	2.1E-05	mg/kg-day	2.9E-04
			Exp. Route Total								3E-08					4E-04
			Exposure Point Total								1E-07					1E-03
			Exposure Medium Total								N/A					N/A
			Medium Total								N/A					N/A
			Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media		

TABLE 3-7.9.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal	Arsenic	2E+01	ug/L	6.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.0E-08	6.9E-08	mg/kg-day	3.0E-04	mg/kg-day	2.3E-04	
				Chromium VI	1E+01	ug/L	5.5E-09	mg/kg-day	N/A	N/A	N/A	5.5E-08	mg/kg-day	7.5E-05	mg/kg-day	7.4E-04	
				Manganese	6E+02	ug/L	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.8E-03	mg/kg-day	6.7E-04	
				Mercury	6E-02	ug/L	1.9E-11	mg/kg-day	N/A	N/A	N/A	1.9E-10	mg/kg-day	2.1E-05	mg/kg-day	8.9E-06	
			Exp. Route Total									1E-08					2E-03
			Exposure Point Total									1E-08					2E-03
		SW-05 - 78 days	Dermal	Arsenic	2E+01	ug/L	2.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.1E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	6.9E-04	
				Chromium VI	1E+01	ug/L	1.7E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	7.5E-05	mg/kg-day	2.2E-03	
				Manganese	6E+02	ug/L	5.6E-07	mg/kg-day	N/A	N/A	N/A	5.6E-06	mg/kg-day	2.8E-03	mg/kg-day	2.0E-03	
				Mercury	6E-02	ug/L	5.6E-11	mg/kg-day	N/A	N/A	N/A	5.6E-10	mg/kg-day	2.1E-05	mg/kg-day	2.7E-05	
			Exp. Route Total									3E-08					5E-03
			Exposure Point Total									3E-08					5E-03
		SW-06 - 26 days	Dermal	Arsenic	1E+01	ug/L	4.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.2E-09	4.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.4E-04	
				Chromium VI	6E+00	ug/L	3.7E-09	mg/kg-day	N/A	N/A	N/A	3.7E-08	mg/kg-day	7.5E-05	mg/kg-day	4.9E-04	
				Manganese	6E+02	ug/L	1.7E-07	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	2.8E-03	mg/kg-day	6.0E-04	
					Exp. Route Total									6E-09			
			Exposure Point Total									6E-09					1E-03
		SW-06 - 78 days	Dermal	Arsenic	1E+01	ug/L	1.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.9E-08	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	4.2E-04	
				Chromium VI	6E+00	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03	
				Manganese	6E+02	ug/L	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.0E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03	
					Exp. Route Total									2E-08			
			Exposure Point Total									2E-08					4E-03
		SW-07 - 26 days	Dermal	Arsenic	6E+00	ug/L	1.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.8E-09	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.2E-05	
				Manganese	4E+02	ug/L	1.3E-07	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	2.8E-03	mg/kg-day	4.6E-04	
	Exp. Route Total											3E-09				5E-04	
	Exposure Point Total											3E-09				5E-04	
SW-08 - 26 days	Dermal	Arsenic	5E+00	ug/L	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-09	1.3E-08	mg/kg-day	3.0E-04	mg/kg-day	4.4E-05			
		Manganese	3E+02	ug/L	8.6E-08	mg/kg-day	N/A	N/A	N/A	8.6E-07	mg/kg-day	2.8E-03	mg/kg-day	3.1E-04			
			Exp. Route Total									2E-09				4E-04	
			Exposure Point Total									2E-09				4E-04	

TABLE 3-7.9.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-09 - 26 days	Dermal	Arsenic	3E+00	ug/L	7.8E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-09	7.8E-09	mg/kg-day	3.0E-04	mg/kg-day	2.6E-05	
				Manganese	6E+01	ug/L	1.7E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	2.8E-03	mg/kg-day	5.9E-05	
			Exp. Route Total														9E-05
		Exposure Point Total															9E-05
		SW-10 - 5 days	Ingestion	Arsenic	2E+00	ug/L	8.7E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-09	8.7E-09	mg/kg-day	3.0E-04	mg/kg-day	2.9E-05	
				Mercury	2E-01	ug/L	1.1E-10	mg/kg-day	N/A	N/A	N/A	1.1E-09	mg/kg-day	3.0E-04	mg/kg-day	3.6E-06	
			Exp. Route Total														3E-05
			Dermal	Arsenic	2E+00	ug/L	3.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.7E-10	3.1E-09	mg/kg-day	3.0E-04	mg/kg-day	1.0E-05	
				Mercury	2E-01	ug/L	3.8E-11	mg/kg-day	N/A	N/A	N/A	3.8E-10	mg/kg-day	2.1E-05	mg/kg-day	1.8E-05	
		Exp. Route Total									5E-10					3E-05	
		Exposure Point Total									2E-09						6E-05
		Exposure Medium Total										N/A					N/A
		Medium Total										N/A					N/A
		Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A

TABLE 3-7.10.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal	Arsenic	2E+01	ug/L	2.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.1E-08	3.2E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Chromium VI	1E+01	ug/L	2.2E-08	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.4E-03
				Manganese	6E+02	ug/L	7.4E-07	mg/kg-day	N/A	N/A	N/A	8.6E-06	mg/kg-day	2.8E-03	mg/kg-day	3.1E-03
				Mercury	6E-02	ug/L	7.4E-11	mg/kg-day	N/A	N/A	N/A	8.6E-10	mg/kg-day	2.1E-05	mg/kg-day	4.1E-05
				Exp. Route Total												
		Exposure Point Total														8E-03
		SW-05 - 52 days	Dermal	Arsenic	2E+01	ug/L	5.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.1E-08	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Chromium VI	1E+01	ug/L	4.4E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	7.5E-05	mg/kg-day	6.8E-03
				Manganese	6E+02	ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.7E-05	mg/kg-day	2.8E-03	mg/kg-day	6.2E-03
				Mercury	6E-02	ug/L	1.5E-10	mg/kg-day	N/A	N/A	N/A	1.7E-09	mg/kg-day	2.1E-05	mg/kg-day	8.2E-05
				Exp. Route Total												
		Exposure Point Total														2E-02
		SW-05 - 78 days	Dermal	Arsenic	2E+01	ug/L	8.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-07	9.5E-07	mg/kg-day	3.0E-04	mg/kg-day	3.2E-03
				Chromium VI	1E+01	ug/L	6.5E-08	mg/kg-day	N/A	N/A	N/A	7.6E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Manganese	6E+02	ug/L	2.2E-06	mg/kg-day	N/A	N/A	N/A	2.6E-05	mg/kg-day	2.8E-03	mg/kg-day	9.3E-03
				Mercury	6E-02	ug/L	2.2E-10	mg/kg-day	N/A	N/A	N/A	2.6E-09	mg/kg-day	2.1E-05	mg/kg-day	1.2E-04
				Exp. Route Total												
		Exposure Point Total														2E-02
		SW-05 - 104 days	Dermal	Arsenic	2E+01	ug/L	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-07	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.2E-03
				Chromium VI	1E+01	ug/L	8.7E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	7.5E-05	mg/kg-day	1.4E-02
				Manganese	6E+02	ug/L	3.0E-06	mg/kg-day	N/A	N/A	N/A	3.5E-05	mg/kg-day	2.8E-03	mg/kg-day	1.2E-02
				Mercury	6E-02	ug/L	3.0E-10	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04
				Exp. Route Total												
		Exposure Point Total														3E-02
SW-06 - 26 days	Dermal	Arsenic	1E+01	ug/L	1.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.5E-08	1.9E-07	mg/kg-day	3.0E-04	mg/kg-day	6.4E-04		
		Chromium VI	6E+00	ug/L	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-07	mg/kg-day	7.5E-05	mg/kg-day	2.2E-03		
		Manganese	6E+02	ug/L	6.6E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	2.8E-03	mg/kg-day	2.7E-03		
		Exp. Route Total														
		Exposure Point Total														6E-03

TABLE 3-7.10.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units					
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-06 - 78 days	Dermal	Arsenic	1E+01	ug/L	4.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.4E-08	5.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03		
				Chromium VI	6E+00	ug/L	4.3E-08	mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	7.5E-05	mg/kg-day	6.7E-03		
				Manganese	6E+02	ug/L	2.0E-06	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	2.8E-03	mg/kg-day	8.2E-03		
				Exp. Route Total														
				Exposure Point Total								7E-08					2E-02	
				SW-06 - 104 days	Dermal	Arsenic	1E+01	ug/L	6.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.8E-08	7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.5E-03
						Chromium VI	6E+00	ug/L	5.8E-08	mg/kg-day	N/A	N/A	N/A	6.7E-07	mg/kg-day	7.5E-05	mg/kg-day	9.0E-03
						Manganese	6E+02	ug/L	2.6E-06	mg/kg-day	N/A	N/A	N/A	3.1E-05	mg/kg-day	2.8E-03	mg/kg-day	1.1E-02
						Exp. Route Total												
				Exposure Point Total								1E-07					2E-02	
				SW-07 - 26 days	Dermal	Arsenic	6E+00	ug/L	7.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-08	8.5E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04
						Manganese	4E+02	ug/L	5.0E-07	mg/kg-day	N/A	N/A	N/A	5.9E-06	mg/kg-day	2.8E-03	mg/kg-day	2.1E-03
						Exp. Route Total												
				Exposure Point Total								1E-08					2E-03	
				SW-07 - 78 days	Dermal	Arsenic	6E+00	ug/L	2.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.3E-08	2.6E-07	mg/kg-day	3.0E-04	mg/kg-day	8.5E-04
		Manganese	4E+02			ug/L	1.5E-06	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	2.8E-03	mg/kg-day	6.3E-03		
		Exp. Route Total																
		Exposure Point Total								3E-08					7E-03			
		SW-08 - 78 days	Dermal	Arsenic	5E+00	ug/L	1.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.3E-08	1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	6.0E-04		
				Manganese	3E+02	ug/L	1.0E-06	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	4.2E-03		
				Exp. Route Total														
		Exposure Point Total								2E-08					5E-03			
		SW-09 - 78 days	Dermal	Arsenic	3E+00	ug/L	9.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-08	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	3.6E-04		
				Manganese	6E+01	ug/L	2.0E-07	mg/kg-day	N/A	N/A	N/A	2.3E-06	mg/kg-day	2.8E-03	mg/kg-day	8.1E-04		
				Exp. Route Total														
		Exposure Point Total								1E-08					1E-03			
		Exposure Point Total								1E-08					1E-03			

TABLE 3-7.10.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Recreational User
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water (cont.)	Baseflow Surface Water (cont.)	SW-10 - 39 days	Ingestion	Arsenic	2E+00	ug/L	5.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.2E-08	6.4E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03	
				Mercury	2E-01	ug/L	6.7E-09	mg/kg-day	N/A	N/A	N/A	7.8E-08	mg/kg-day	3.0E-04	mg/kg-day	2.6E-04	
				Exp. Route Total							8E-08					2E-03	
				Dermal	Arsenic	2E+00	ug/L	7.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-08	8.4E-08	mg/kg-day	3.0E-04	mg/kg-day	2.8E-04
					Mercury	2E-01	ug/L	8.8E-10	mg/kg-day	N/A	N/A	N/A	1.0E-08	mg/kg-day	2.1E-05	mg/kg-day	4.9E-04
			Exp. Route Total							1E-08					8E-04		
			Exposure Point Total							9E-08						3E-03	
			Exposure Medium Total							N/A						N/A	
			Medium Total								N/A						N/A
			Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media			

TABLE 3-7.10.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Dermal	Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.8E-09	1.6E-07	mg/kg-day	3.0E-04	mg/kg-day	5.3E-04	
				Chromium VI	1E+01	ug/L	3.6E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	7.5E-05	mg/kg-day	1.7E-03	
				Manganese	6E+02	ug/L	1.2E-07	mg/kg-day	N/A	N/A	N/A	4.3E-06	mg/kg-day	2.8E-03	mg/kg-day	1.5E-03	
				Mercury	6E-02	ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.3E-10	mg/kg-day	2.1E-05	mg/kg-day	2.1E-05	
				Exp. Route Total								7E-09					4E-03
				Exposure Point Total								7E-09					4E-03
		SW-05 - 78 days	Dermal	Arsenic	2E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.0E-08	4.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.6E-03	
				Chromium VI	1E+01	ug/L	1.1E-08	mg/kg-day	N/A	N/A	N/A	3.8E-07	mg/kg-day	7.5E-05	mg/kg-day	5.1E-03	
				Manganese	6E+02	ug/L	3.7E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.6E-03	
				Mercury	6E-02	ug/L	3.7E-11	mg/kg-day	N/A	N/A	N/A	1.3E-09	mg/kg-day	2.1E-05	mg/kg-day	6.2E-05	
				Exp. Route Total								2E-08					1E-02
				Exposure Point Total								2E-08					1E-02
		SW-06 - 26 days	Dermal	Arsenic	1E+01	ug/L	2.7E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.1E-09	9.5E-08	mg/kg-day	3.0E-04	mg/kg-day	3.2E-04	
				Chromium VI	6E+00	ug/L	2.4E-09	mg/kg-day	N/A	N/A	N/A	8.4E-08	mg/kg-day	7.5E-05	mg/kg-day	1.1E-03	
				Manganese	6E+02	ug/L	1.1E-07	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	2.8E-03	mg/kg-day	1.4E-03	
						Exp. Route Total								4E-09			
				Exposure Point Total								4E-09					3E-03
		SW-06 - 78 days	Dermal	Arsenic	1E+01	ug/L	8.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-08	2.9E-07	mg/kg-day	3.0E-04	mg/kg-day	9.5E-04	
				Chromium VI	6E+00	ug/L	7.2E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	7.5E-05	mg/kg-day	3.4E-03	
				Manganese	6E+02	ug/L	3.3E-07	mg/kg-day	N/A	N/A	N/A	1.2E-05	mg/kg-day	2.8E-03	mg/kg-day	4.1E-03	
						Exp. Route Total								1E-08			
				Exposure Point Total								1E-08					8E-03
		SW-07 - 26 days	Dermal	Arsenic	6E+00	ug/L	1.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.8E-09	4.3E-08	mg/kg-day	3.0E-04	mg/kg-day	1.4E-04	
				Manganese	4E+02	ug/L	8.4E-08	mg/kg-day	N/A	N/A	N/A	2.9E-06	mg/kg-day	2.8E-03	mg/kg-day	1.0E-03	
				Exp. Route Total								2E-09				1E-03	
				Exposure Point Total								2E-09				1E-03	
SW-08 - 26 days	Dermal	Arsenic	5E+00	ug/L	8.6E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-09	3.0E-08	mg/kg-day	3.0E-04	mg/kg-day	1.0E-04			
		Manganese	3E+02	ug/L	5.6E-08	mg/kg-day	N/A	N/A	N/A	2.0E-06	mg/kg-day	2.8E-03	mg/kg-day	7.0E-04			
				Exp. Route Total								1E-09				8E-04	
				Exposure Point Total								1E-09				8E-04	

TABLE 3-7.11.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Area Resident
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units				
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	5.7E-09	mg/kg-day	N/A	N/A	N/A	1.7E-08	mg/kg-day	6.0E-05	mg/kg-day	2.8E-04	
				Arsenic	4E+00	ug/L	1.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.8E-08	3.6E-08	mg/kg-day	3.0E-04	mg/kg-day	1.2E-04	
				Exp. Route Total													4E-04
		Exposure Point Total															4E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	6.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.5E-09	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.2E-05	
				Mercury	8E-02	ug/L	2.4E-10	mg/kg-day	N/A	N/A	N/A	7.0E-10	mg/kg-day	2.1E-05	mg/kg-day	3.4E-05	
				Exp. Route Total												1E-04	
		Exposure Point Total														1E-04	
		Exposure Medium Total															N/A
		Medium Total															N/A
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A		

TABLE 3-7.11.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Area Resident
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Surface Water	Storm Event Surface Water	SW-05	Dermal	Antimony	3E+00	ug/L	6.3E-10	mg/kg-day	N/A	N/A	N/A	6.3E-09	mg/kg-day	6.0E-05	mg/kg-day	1.0E-04	
				Arsenic	2E+01	ug/L	4.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.7E-09	4.5E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04	
				Chromium VI	1E+01	ug/L	4.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-08	mg/kg-day	7.5E-05	mg/kg-day	6.4E-04	
				Manganese	4E+02	ug/L	9.4E-08	mg/kg-day	N/A	N/A	N/A	9.4E-07	mg/kg-day	2.8E-03	mg/kg-day	3.3E-04	
				Mercury	9E-02	ug/L	2.1E-11	mg/kg-day	N/A	N/A	N/A	2.1E-10	mg/kg-day	2.1E-05	mg/kg-day	1.0E-05	
			Exp. Route Total									7E-09					1E-03
			Exposure Point Total									7E-09					1E-03
			SW-06	Dermal	Antimony	3E+00	ug/L	6.6E-10	mg/kg-day	N/A	N/A	N/A	6.6E-09	mg/kg-day	6.0E-05	mg/kg-day	1.1E-04
			Arsenic		2E+01	ug/L	5.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.4E-09	5.6E-08	mg/kg-day	3.0E-04	mg/kg-day	1.9E-04	
			Chromium VI		2E+01	ug/L	9.5E-09	mg/kg-day	N/A	N/A	N/A	9.5E-08	mg/kg-day	7.5E-05	mg/kg-day	1.3E-03	
			Lead														
			Manganese		4E+02	ug/L	9.6E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	2.8E-03	mg/kg-day	3.4E-04	
			Mercury	8E-02	ug/L	1.9E-11	mg/kg-day	N/A	N/A	N/A	1.9E-10	mg/kg-day	2.1E-05	mg/kg-day	8.9E-06		
				Exp. Route Total									8E-09				2E-03
			Exposure Point Total										8E-09				2E-03
			SW-07	Dermal	Arsenic	1E+01	ug/L	3.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.9E-09	3.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.1E-04
			Chromium VI		1E+01	ug/L	4.5E-09	mg/kg-day	N/A	N/A	N/A	4.5E-08	mg/kg-day	7.5E-05	mg/kg-day	5.9E-04	
			Lead														
			Manganese		2E+02	ug/L	5.6E-08	mg/kg-day	N/A	N/A	N/A	5.6E-07	mg/kg-day	2.8E-03	mg/kg-day	2.0E-04	
			Mercury		8E-02	ug/L	1.9E-11	mg/kg-day	N/A	N/A	N/A	1.9E-10	mg/kg-day	2.1E-05	mg/kg-day	8.9E-06	
				Exp. Route Total									5E-09				9E-04
			Exposure Point Total										5E-09				9E-04
			SW-08	Dermal	Antimony	1E+00	ug/L	3.4E-10	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	6.0E-05	mg/kg-day	5.7E-05
			Arsenic		3E+01	ug/L	6.2E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.3E-09	6.2E-08	mg/kg-day	3.0E-04	mg/kg-day	2.1E-04	
	Chromium VI	5E+01	ug/L		2.2E-08	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	3.0E-03			
	Lead																
	Manganese	6E+02	ug/L		1.5E-07	mg/kg-day	N/A	N/A	N/A	1.5E-06	mg/kg-day	2.8E-03	mg/kg-day	5.2E-04			
	Mercury	2E-01	ug/L		4.1E-11	mg/kg-day	N/A	N/A	N/A	4.1E-10	mg/kg-day	2.1E-05	mg/kg-day	1.9E-05			
	Thallium	2E+00	ug/L		4.3E-10	mg/kg-day	N/A	N/A	N/A	4.3E-09	mg/kg-day	8.0E-05	mg/kg-day	5.4E-05			
		Exp. Route Total									9E-09				4E-03		
	Exposure Point Total										9E-09				4E-03		

TABLE 3-7.11.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations								
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient				
							Value	Units	Value	Units		Value	Units	Value	Units					
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	4.2E-10	mg/kg-day	N/A	N/A	N/A	4.2E-09	mg/kg-day	6.0E-05	mg/kg-day	6.9E-05				
				Arsenic	4E+00	ug/L	9.0E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.3E-09	9.0E-09	mg/kg-day	3.0E-04	mg/kg-day	3.0E-05				
				Exp. Route Total													1E-09		1E-04	
		Exposure Point Total																	1E-09	1E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	4.6E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.9E-10	4.6E-09	mg/kg-day	3.0E-04	mg/kg-day	1.5E-05				
				Mercury	8E-02	ug/L	1.8E-11	mg/kg-day	N/A	N/A	N/A	1.8E-10	mg/kg-day	2.1E-05	mg/kg-day	8.4E-06				
				Exp. Route Total													7E-10		2E-05	
		Exposure Point Total																	7E-10	2E-05
		Exposure Medium Total																	N/A	N/A
		Medium Total																	N/A	N/A
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media					N/A				

TABLE 3-7.12.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Area Resident
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units					
Surface Water	Storm Event Surface Water	SW-05	Dermal	Antimony	3E+00	ug/L	4.9E-09	mg/kg-day	N/A	N/A	N/A	5.8E-08	mg/kg-day	6.0E-05	mg/kg-day	9.6E-04		
				Arsenic	2E+01	ug/L	3.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.3E-08	4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03		
				Chromium VI	1E+01	ug/L	3.8E-08	mg/kg-day	N/A	N/A	N/A	4.4E-07	mg/kg-day	7.5E-05	mg/kg-day	5.9E-03		
				Manganese	4E+02	ug/L	7.4E-07	mg/kg-day	N/A	N/A	N/A	8.6E-06	mg/kg-day	2.8E-03	mg/kg-day	3.1E-03		
				Mercury	9E-02	ug/L	1.7E-10	mg/kg-day	N/A	N/A	N/A	1.9E-09	mg/kg-day	2.1E-05	mg/kg-day	9.2E-05		
				Exp. Route Total								5E-08					1E-02	
				Exposure Point Total								5E-08					1E-02	
				SW-06	Dermal	Antimony	3E+00	ug/L	5.2E-09	mg/kg-day	N/A	N/A	N/A	6.0E-08	mg/kg-day	6.0E-05	mg/kg-day	1.0E-03
		Arsenic	2E+01			ug/L	4.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.6E-08	5.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.7E-03		
		Chromium VI	2E+01			ug/L	7.5E-08	mg/kg-day	N/A	N/A	N/A	8.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.2E-02		
		Lead																
		Manganese	4E+02			ug/L	7.6E-07	mg/kg-day	N/A	N/A	N/A	8.8E-06	mg/kg-day	2.8E-03	mg/kg-day	3.2E-03		
				Mercury	2E-01	ug/L	2.9E-10	mg/kg-day	N/A	N/A	N/A	3.4E-09	mg/kg-day	2.1E-05	mg/kg-day	1.6E-04		
				Exp. Route Total									7E-08				2E-02	
				Exposure Point Total									7E-08				2E-02	
				SW-07	Dermal	Arsenic	1E+01	ug/L	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.8E-08	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	9.9E-04
		Chromium VI	1E+01			ug/L	3.5E-08	mg/kg-day	N/A	N/A	N/A	4.1E-07	mg/kg-day	7.5E-05	mg/kg-day	5.4E-03		
		Lead																
		Manganese	2E+02			ug/L	4.4E-07	mg/kg-day	N/A	N/A	N/A	5.2E-06	mg/kg-day	2.8E-03	mg/kg-day	1.8E-03		
		Mercury	8E-02			ug/L	1.5E-10	mg/kg-day	N/A	N/A	N/A	1.7E-09	mg/kg-day	2.1E-05	mg/kg-day	8.2E-05		
		Exp. Route Total									4E-08				8E-03			
		Exposure Point Total									4E-08				8E-03			
		SW-08	Dermal	Antimony	1E+00	ug/L	2.7E-09	mg/kg-day	N/A	N/A	N/A	3.1E-08	mg/kg-day	6.0E-05	mg/kg-day	5.2E-04		
Arsenic	3E+01			ug/L	4.9E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.3E-08	5.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03				
Chromium VI	5E+01			ug/L	1.8E-07	mg/kg-day	N/A	N/A	N/A	2.1E-06	mg/kg-day	7.5E-05	mg/kg-day	2.7E-02				
Lead																		
Manganese	6E+02			ug/L	1.1E-06	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	2.8E-03	mg/kg-day	4.8E-03				
Mercury	2E-01			ug/L	3.2E-10	mg/kg-day	N/A	N/A	N/A	3.7E-09	mg/kg-day	2.1E-05	mg/kg-day	1.8E-04				
Thallium	2E+00			ug/L	3.4E-09	mg/kg-day	N/A	N/A	N/A	3.9E-08	mg/kg-day	8.0E-05	mg/kg-day	4.9E-04				
		Exp. Route Total									7E-08				4E-02			
		Exposure Point Total									7E-08				4E-02			

TABLE 3-7.12.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Area Resident
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units					
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	3.3E-09	mg/kg-day	N/A	N/A	N/A	3.8E-08	mg/kg-day	6.0E-05	mg/kg-day	6.3E-04		
				Arsenic	4E+00	ug/L	7.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.1E-08	8.2E-08	mg/kg-day	3.0E-04	mg/kg-day	2.7E-04		
				Exp. Route Total							1E-08					9E-04		
			Exposure Point Total													1E-08		9E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	3.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.5E-09	4.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.4E-04		
				Mercury	8E-02	ug/L	1.4E-10	mg/kg-day	N/A	N/A	N/A	1.6E-09	mg/kg-day	2.1E-05	mg/kg-day	7.7E-05		
				Exp. Route Total							5E-09					2E-04		
			Exposure Point Total													5E-09		2E-04
			Exposure Medium Total															N/A
			Medium Total															
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A			

TABLE 3-7.12.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
 Receptor Population: Area Resident
 Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations						
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient		
							Value	Units	Value	Units		Value	Units	Value	Units			
Surface Water	Storm Event Surface Water	SW-05	Dermal	Antimony	3E+00	ug/L	4.1E-10	mg/kg-day	N/A	N/A	N/A	1.4E-08	mg/kg-day	6.0E-05	mg/kg-day	2.4E-04		
				Arsenic	2E+01	ug/L	2.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.4E-09	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.4E-04		
				Chromium VI	1E+01	ug/L	3.1E-09	mg/kg-day	N/A	N/A	N/A	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.5E-03		
				Manganese	4E+02	ug/L	6.1E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	2.8E-03	mg/kg-day	7.7E-04		
				Mercury	9E-02	ug/L	1.4E-11	mg/kg-day	N/A	N/A	N/A	4.8E-10	mg/kg-day	2.1E-05	mg/kg-day	2.3E-05		
				Exp. Route Total								4E-09					3E-03	
				Exposure Point Total								4E-09					3E-03	
				SW-06	Dermal	Antimony	3E+00	ug/L	4.3E-10	mg/kg-day	N/A	N/A	N/A	1.5E-08	mg/kg-day	6.0E-05	mg/kg-day	2.5E-04
		Arsenic	2E+01			ug/L	3.7E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.5E-09	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.3E-04		
		Chromium VI	2E+01			ug/L	6.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	2.9E-03		
		Lead																
		Manganese	4E+02			ug/L	6.3E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	2.8E-03	mg/kg-day	7.9E-04		
						Mercury	8E-02	ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.3E-10	mg/kg-day	2.1E-05	mg/kg-day	2.0E-05
						Exp. Route Total												4E-03
				Exposure Point Total									5E-09					4E-03
				SW-07	Dermal	Arsenic	1E+01	ug/L	2.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.2E-09	7.4E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
		Chromium VI	1E+01			ug/L	2.9E-09	mg/kg-day	N/A	N/A	N/A	1.0E-07	mg/kg-day	7.5E-05	mg/kg-day	1.4E-03		
		Lead																
		Manganese	2E+02			ug/L	3.7E-08	mg/kg-day	N/A	N/A	N/A	1.3E-06	mg/kg-day	2.8E-03	mg/kg-day	4.6E-04		
		Mercury	8E-02			ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.3E-10	mg/kg-day	2.1E-05	mg/kg-day	2.0E-05		
				Exp. Route Total												2E-03		
		Exposure Point Total									3E-09					2E-03		
		SW-08	Dermal	Antimony	1E+00	ug/L	2.2E-10	mg/kg-day	N/A	N/A	N/A	7.8E-09	mg/kg-day	6.0E-05	mg/kg-day	1.3E-04		
Arsenic	3E+01			ug/L	4.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.1E-09	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.8E-04				
Chromium VI	5E+01			ug/L	1.5E-08	mg/kg-day	N/A	N/A	N/A	5.1E-07	mg/kg-day	7.5E-05	mg/kg-day	6.8E-03				
Lead																		
Manganese	6E+02			ug/L	9.5E-08	mg/kg-day	N/A	N/A	N/A	3.3E-06	mg/kg-day	2.8E-03	mg/kg-day	1.2E-03				
Mercury	2E-01			ug/L	2.7E-11	mg/kg-day	N/A	N/A	N/A	9.3E-10	mg/kg-day	2.1E-05	mg/kg-day	4.4E-05				
Thallium	2E+00			ug/L	2.8E-10	mg/kg-day	N/A	N/A	N/A	9.9E-09	mg/kg-day	8.0E-05	mg/kg-day	1.2E-04				
				Exp. Route Total												9E-03		
		Exposure Point Total									6E-09					9E-03		

TABLE 3-7.12.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units			
Surface Water (cont.)	Storm Event Surface Water (cont.)	SW-09	Dermal	Antimony	2E+00	ug/L	2.7E-10	mg/kg-day	N/A	N/A	N/A	9.5E-09	mg/kg-day	6.0E-05	mg/kg-day	1.6E-04
				Arsenic	4E+00	ug/L	5.9E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.8E-10	2.1E-08	mg/kg-day	3.0E-04	mg/kg-day	6.9E-05
				Exp. Route Total							9E-10					2E-04
		Exposure Point Total									9E-10					2E-04
		SW-10	Dermal	Arsenic	2E+00	ug/L	3.0E-10	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.6E-10	1.1E-08	mg/kg-day	3.0E-04	mg/kg-day	3.5E-05
				Mercury	8E-02	ug/L	1.2E-11	mg/kg-day	N/A	N/A	N/A	4.0E-10	mg/kg-day	2.1E-05	mg/kg-day	1.9E-05
				Exp. Route Total							5E-10					5E-05
		Exposure Point Total									5E-10					5E-05
		Exposure Medium Total									N/A					N/A
		Medium Total									N/A					N/A
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A	

TABLE 3-7.13.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Sediment	Sediment Cores	SC05	Ingestion	Antimony	1E+01	mg/kg	4.4E-07	mg/kg-day	N/A	N/A	N/A	1.6E-05	mg/kg-day	4.0E-04	mg/kg-day	3.9E-02	
				Arsenic	9E+02	mg/kg	3.4E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.6E-05	1.2E-03	mg/kg-day	5.9E-04	mg/kg-day	2.0E+00	
				Cadmium	2E+01	mg/kg	8.5E-07	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	1.0E-03	mg/kg-day	3.0E-02	
				Copper	2E+03	mg/kg	6.0E-05	mg/kg-day	N/A	N/A	N/A	2.1E-03	mg/kg-day	3.0E-02	mg/kg-day	7.0E-02	
				Lead													
				Manganese	4E+02	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	5.1E-04	mg/kg-day	7.0E-02	mg/kg-day	7.3E-03	
				Mercury	2E+01	mg/kg	8.6E-07	mg/kg-day	N/A	N/A	N/A	3.0E-05	mg/kg-day	1.0E-04	mg/kg-day	3.0E-01	
				Vanadium	6E+01	mg/kg	2.2E-06	mg/kg-day	N/A	N/A	N/A	7.6E-05	mg/kg-day	1.0E-03	mg/kg-day	7.6E-02	
				Exp. Route Total								3E-05					3E+00
				Dermal	Arsenic	9E+02	mg/kg	3.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.0E-06	1.2E-04	mg/kg-day	3.0E-04	mg/kg-day	3.9E-01
		Cadmium	2E+01		mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.8E-07	mg/kg-day	2.5E-05	mg/kg-day	3.9E-02		
		Exp. Route Total								5E-06					4E-01		
		Exposure Point Total								3E-05					3E+00		
		SC06	Ingestion	Arsenic	2E+03	mg/kg	6.3E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	4.9E-05	2.2E-03	mg/kg-day	5.9E-04	mg/kg-day	3.8E+00	
				Cadmium	4E+01	mg/kg	1.6E-06	mg/kg-day	N/A	N/A	N/A	5.7E-05	mg/kg-day	1.0E-03	mg/kg-day	5.7E-02	
				Copper	1E+03	mg/kg	3.5E-05	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	3.0E-02	mg/kg-day	4.1E-02	
				Lead													
				Manganese	2E+03	mg/kg	6.2E-05	mg/kg-day	N/A	N/A	N/A	2.2E-03	mg/kg-day	7.0E-02	mg/kg-day	3.1E-02	
				Mercury	8E+00	mg/kg	3.1E-07	mg/kg-day	N/A	N/A	N/A	1.1E-05	mg/kg-day	1.0E-04	mg/kg-day	1.1E-01	
				Vanadium	6E+01	mg/kg	2.4E-06	mg/kg-day	N/A	N/A	N/A	8.4E-05	mg/kg-day	1.0E-03	mg/kg-day	8.4E-02	
				Zinc	4E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	5.5E-03	mg/kg-day	3.0E-01	mg/kg-day	1.8E-02	
				Exp. Route Total								5E-05					4E+00
				Dermal	Arsenic	2E+03	mg/kg	6.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	9.4E-06	2.2E-04	mg/kg-day	3.0E-04	mg/kg-day	7.3E-01
Cadmium	4E+01				mg/kg	5.3E-08	mg/kg-day	N/A	N/A	N/A	1.9E-06	mg/kg-day	2.5E-05	mg/kg-day	7.5E-02		
Exp. Route Total										9E-06					8E-01		
Exposure Point Total										6E-05					5E+00		

TABLE 3-7.13.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Sediment (cont.)	Sediment Cores (cont.)	SC07	Ingestion	Arsenic	4E+02	mg/kg	1.5E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.1E-05	5.2E-04	mg/kg-day	5.9E-04	mg/kg-day	8.8E-01	
				Cadmium	2E+01	mg/kg	8.3E-07	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.0E-03	mg/kg-day	2.9E-02	
				Copper	8E+02	mg/kg	3.1E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-02	mg/kg-day	3.6E-02	
				Lead													
				Manganese	2E+03	mg/kg	8.6E-05	mg/kg-day	N/A	N/A	N/A	3.0E-03	mg/kg-day	7.0E-02	mg/kg-day	4.3E-02	
				Mercury	3E+00	mg/kg	1.3E-07	mg/kg-day	N/A	N/A	N/A	4.4E-06	mg/kg-day	1.0E-04	mg/kg-day	4.4E-02	
				Vanadium	7E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	1.0E-03	mg/kg-day	8.7E-02	
				Zinc	4E+03	mg/kg	1.6E-04	mg/kg-day	N/A	N/A	N/A	5.7E-03	mg/kg-day	3.0E-01	mg/kg-day	1.9E-02	
				Exp. Route Total								1E-05					1E+00
				Dermal													
		Arsenic	4E+02	mg/kg	1.5E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	2.2E-06	5.2E-05	mg/kg-day	3.0E-04	mg/kg-day	1.7E-01			
		Cadmium	2E+01	mg/kg	2.7E-08	mg/kg-day	N/A	N/A	N/A	9.6E-07	mg/kg-day	2.5E-05	mg/kg-day	3.8E-02			
		Exp. Route Total								2E-06					2E-01		
		Exposure Point Total								1E-05						1E+00	
		SC08	Ingestion	Arsenic	1E+03	mg/kg	4.7E-05	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.6E-05	1.6E-03	mg/kg-day	5.9E-04	mg/kg-day	2.8E+00	
		Cadmium		2E+01	mg/kg	8.4E-07	mg/kg-day	N/A	N/A	N/A	2.9E-05	mg/kg-day	1.0E-03	mg/kg-day	2.9E-02		
		Copper		1E+03	mg/kg	5.3E-05	mg/kg-day	N/A	N/A	N/A	1.8E-03	mg/kg-day	3.0E-02	mg/kg-day	6.1E-02		
		Lead															
		Manganese		5E+02	mg/kg	1.9E-05	mg/kg-day	N/A	N/A	N/A	6.8E-04	mg/kg-day	7.0E-02	mg/kg-day	9.7E-03		
		Mercury		1E+01	mg/kg	5.2E-07	mg/kg-day	N/A	N/A	N/A	1.8E-05	mg/kg-day	1.0E-04	mg/kg-day	1.8E-01		
		Vanadium		7E+01	mg/kg	2.5E-06	mg/kg-day	N/A	N/A	N/A	8.7E-05	mg/kg-day	1.0E-03	mg/kg-day	8.7E-02		
		Zinc		2E+03	mg/kg	8.6E-05	mg/kg-day	N/A	N/A	N/A	3.0E-03	mg/kg-day	3.0E-01	mg/kg-day	1.0E-02		
		Exp. Route Total									4E-05					3E+00	
		Dermal															
		Arsenic	1E+03	mg/kg	4.6E-06	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.9E-06	1.6E-04	mg/kg-day	3.0E-04	mg/kg-day	5.4E-01			
		Cadmium	2E+01	mg/kg	2.8E-08	mg/kg-day	N/A	N/A	N/A	9.7E-07	mg/kg-day	2.5E-05	mg/kg-day	3.9E-02			
		Exp. Route Total								7E-06					6E-01		
Exposure Point Total								4E-05						4E+00			
SC09	Ingestion	Arsenic	9E+01	mg/kg	3.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.6E-06	1.2E-04	mg/kg-day	5.9E-04	mg/kg-day	2.0E-01			
Mercury		1E+00	mg/kg	4.5E-08	mg/kg-day	N/A	N/A	N/A	1.6E-06	mg/kg-day	1.0E-04	mg/kg-day	1.6E-02				
Exp. Route Total									3E-06					2E-01			
Dermal																	
Arsenic	9E+01	mg/kg	3.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.9E-07	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	3.8E-02					
Exp. Route Total								5E-07						4E-02			
Exposure Point Total								3E-06						3E-01			

TABLE 3-7.13.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Sediment (cont.)	Sediment Cores (cont.)	SC10	Ingestion	Arsenic	6E+01	mg/kg	2.2E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	1.7E-06	7.7E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01	
			Exp. Route Total									2E-06					1E-01
			Dermal	Arsenic	6E+01	mg/kg	2.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	3.3E-07	7.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.5E-02	
			Exp. Route Total									3E-07					3E-02
		Exposure Point Total										2E-06					2E-01
		SC11	Ingestion	Arsenic	1E+02	mg/kg	4.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.2E-06	1.4E-04	mg/kg-day	5.9E-04	mg/kg-day	2.4E-01	
				Cadmium	7E+00	mg/kg	2.7E-07	mg/kg-day	N/A	N/A	N/A	9.4E-06	mg/kg-day	1.0E-03	mg/kg-day	9.4E-03	
				Copper	3E+02	mg/kg	1.2E-05	mg/kg-day	N/A	N/A	N/A	4.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.4E-02	
				Lead													
				Manganese	6E+02	mg/kg	2.3E-05	mg/kg-day	N/A	N/A	N/A	8.0E-04	mg/kg-day	7.0E-02	mg/kg-day	1.1E-02	
				Mercury	2E+00	mg/kg	8.0E-08	mg/kg-day	N/A	N/A	N/A	2.8E-06	mg/kg-day	1.0E-04	mg/kg-day	2.8E-02	
				Vanadium	7E+01	mg/kg	2.6E-06	mg/kg-day	N/A	N/A	N/A	9.1E-05	mg/kg-day	1.0E-03	mg/kg-day	9.1E-02	
			Exp. Route Total									3E-06					4E-01
			Dermal	Arsenic	1E+02	mg/kg	4.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.1E-07	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	4.7E-02	
				Cadmium	7E+00	mg/kg	8.9E-09	mg/kg-day	N/A	N/A	N/A	3.1E-07	mg/kg-day	2.5E-05	mg/kg-day	1.2E-02	
		Exp. Route Total										6E-07				6E-02	
		Exposure Point Total										4E-06				5E-01	
		SC12	Ingestion	Arsenic	1E+02	mg/kg	4.9E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.7E-06	1.7E-04	mg/kg-day	5.9E-04	mg/kg-day	2.9E-01	
				Cadmium	1E+01	mg/kg	4.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02	
				Copper	4E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	5.8E-04	mg/kg-day	3.0E-02	mg/kg-day	1.9E-02	
				Lead													
				Manganese	9E+02	mg/kg	3.4E-05	mg/kg-day	N/A	N/A	N/A	1.2E-03	mg/kg-day	7.0E-02	mg/kg-day	1.7E-02	
				Mercury	3E+00	mg/kg	1.0E-07	mg/kg-day	N/A	N/A	N/A	3.5E-06	mg/kg-day	1.0E-04	mg/kg-day	3.5E-02	
				Vanadium	8E+01	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	1.1E-04	mg/kg-day	1.0E-03	mg/kg-day	1.1E-01	
Exp. Route Total										4E-06					5E-01		
Dermal	Arsenic		1E+02	mg/kg	4.8E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.2E-07	1.7E-05	mg/kg-day	3.0E-04	mg/kg-day	5.6E-02			
	Cadmium		1E+01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	4.7E-07	mg/kg-day	2.5E-05	mg/kg-day	1.9E-02			
	Exp. Route Total									7E-07				8E-02			
Exposure Point Total										4E-06				6E-01			

TABLE 3-7.13.RME
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units			
Sediment (cont.)	Sediment Cores (cont.)	SC13	Ingestion	Arsenic	1E+02	mg/kg	4.4E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.4E-06	1.5E-04	mg/kg-day	5.9E-04	mg/kg-day	2.6E-01
				Cadmium	1E+01	mg/kg	4.3E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02
				Copper	5E+02	mg/kg	1.7E-05	mg/kg-day	N/A	N/A	N/A	6.0E-04	mg/kg-day	3.0E-02	mg/kg-day	2.0E-02
				Lead												
				Manganese	3E+02	mg/kg	1.3E-05	mg/kg-day	N/A	N/A	N/A	4.6E-04	mg/kg-day	7.0E-02	mg/kg-day	6.5E-03
				Mercury	2E+00	mg/kg	7.8E-08	mg/kg-day	N/A	N/A	N/A	2.7E-06	mg/kg-day	1.0E-04	mg/kg-day	2.7E-02
				Vanadium	8E+01	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	1.0E-04	mg/kg-day	1.0E-03	mg/kg-day	1.0E-01
				Zinc	3E+03	mg/kg	9.3E-05	mg/kg-day	N/A	N/A	N/A	3.3E-03	mg/kg-day	3.0E-01	mg/kg-day	1.1E-02
				Exp. Route Total								3E-06				
			Dermal	Arsenic	1E+02	mg/kg	4.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.5E-07	1.5E-05	mg/kg-day	3.0E-04	mg/kg-day	5.1E-02
				Cadmium	1E+01	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	5.0E-07	mg/kg-day	2.5E-05	mg/kg-day	2.0E-02
			Exp. Route Total								7E-07					7E-02
			Exposure Point Total								4E-06					
Exposure Medium Total								N/A						N/A		
Medium Total								N/A						N/A		
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A	

TABLE 3-7.13.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Sediment	Sediment Cores	SC05	Ingestion	Antimony	1E+01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	7.7E-06	mg/kg-day	4.0E-04	mg/kg-day	1.9E-02	
				Arsenic	5E+02	mg/kg	5.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.8E-06	3.5E-04	mg/kg-day	5.9E-04	mg/kg-day	5.9E-01	
				Cadmium	2E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-03	mg/kg-day	1.5E-02	
				Copper	1E+03	mg/kg	9.2E-06	mg/kg-day	N/A	N/A	N/A	6.4E-04	mg/kg-day	3.0E-02	mg/kg-day	2.1E-02	
				Lead													
				Manganese	4E+02	mg/kg	3.3E-06	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	7.0E-02	mg/kg-day	3.3E-03	
				Mercury	2E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	1.5E-05	mg/kg-day	1.0E-04	mg/kg-day	1.5E-01	
				Vanadium	6E+01	mg/kg	5.4E-07	mg/kg-day	N/A	N/A	N/A	3.8E-05	mg/kg-day	1.0E-03	mg/kg-day	3.8E-02	
				Exp. Route Total								4E-06					8E-01
				Dermal	Arsenic	5E+02	mg/kg	4.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	7.4E-07	3.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01
					Cadmium	2E+01	mg/kg	6.9E-09	mg/kg-day	N/A	N/A	N/A	4.9E-07	mg/kg-day	2.5E-05	mg/kg-day	1.9E-02
					Exp. Route Total							7E-07					1E-01
				Exposure Point Total							5E-06						1E+00
				SC06	Ingestion	Arsenic	9E+02	mg/kg	8.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	6.1E-06	5.6E-04	mg/kg-day	5.9E-04	mg/kg-day
		Cadmium	4E+01			mg/kg	4.0E-07	mg/kg-day	N/A	N/A	N/A	2.8E-05	mg/kg-day	1.0E-03	mg/kg-day	2.8E-02	
		Copper	5E+02			mg/kg	4.6E-06	mg/kg-day	N/A	N/A	N/A	3.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.1E-02	
		Lead															
		Manganese	2E+03			mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	7.0E-02	mg/kg-day	1.5E-02	
		Mercury	5E+00			mg/kg	4.4E-08	mg/kg-day	N/A	N/A	N/A	3.1E-06	mg/kg-day	1.0E-04	mg/kg-day	3.1E-02	
		Vanadium	4E+01			mg/kg	3.3E-07	mg/kg-day	N/A	N/A	N/A	2.3E-05	mg/kg-day	1.0E-03	mg/kg-day	2.3E-02	
		Zinc	4E+03			mg/kg	3.9E-05	mg/kg-day	N/A	N/A	N/A	2.7E-03	mg/kg-day	3.0E-01	mg/kg-day	9.1E-03	
		Exp. Route Total									6E-06						1E+00
		Dermal	Arsenic			9E+02	mg/kg	7.9E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.2E-06	5.5E-05	mg/kg-day	3.0E-04	mg/kg-day	1.8E-01
			Cadmium			4E+01	mg/kg	1.3E-08	mg/kg-day	N/A	N/A	N/A	9.3E-07	mg/kg-day	2.5E-05	mg/kg-day	3.7E-02
		Exp. Route Total									1E-06						2E-01
		Exposure Point Total									7E-06						1E+00

TABLE 3-7.13.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Sediment (cont.)	Sediment Cores (cont.)	SC07	Ingestion	Arsenic	4E+02	mg/kg	3.7E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.9E-06	2.6E-04	mg/kg-day	5.9E-04	mg/kg-day	4.4E-01	
				Cadmium	2E+01	mg/kg	2.1E-07	mg/kg-day	N/A	N/A	N/A	1.4E-05	mg/kg-day	1.0E-03	mg/kg-day	1.4E-02	
				Copper	8E+02	mg/kg	7.6E-06	mg/kg-day	N/A	N/A	N/A	5.3E-04	mg/kg-day	3.0E-02	mg/kg-day	1.8E-02	
				Lead													
				Manganese	2E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	7.0E-02	mg/kg-day	2.1E-02	
				Mercury	3E+00	mg/kg	3.1E-08	mg/kg-day	N/A	N/A	N/A	2.2E-06	mg/kg-day	1.0E-04	mg/kg-day	2.2E-02	
				Vanadium	7E+01	mg/kg	6.2E-07	mg/kg-day	N/A	N/A	N/A	4.3E-05	mg/kg-day	1.0E-03	mg/kg-day	4.3E-02	
				Zinc	4E+03	mg/kg	4.0E-05	mg/kg-day	N/A	N/A	N/A	2.8E-03	mg/kg-day	3.0E-01	mg/kg-day	9.4E-03	
				Exp. Route Total								3E-06					6E-01
				Dermal	Arsenic	4E+02	mg/kg	3.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	5.5E-07	2.6E-05	mg/kg-day	3.0E-04	mg/kg-day	8.6E-02
		Cadmium	2E+01		mg/kg	6.8E-09	mg/kg-day	N/A	N/A	N/A	4.8E-07	mg/kg-day	2.5E-05	mg/kg-day	1.9E-02		
		Exp. Route Total								6E-07					1E-01		
		Exposure Point Total								3E-06					7E-01		
		SC08	Ingestion	Arsenic	4E+02	mg/kg	3.3E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	2.5E-06	2.3E-04	mg/kg-day	5.9E-04	mg/kg-day	3.9E-01	
				Cadmium	7E+00	mg/kg	6.4E-08	mg/kg-day	N/A	N/A	N/A	4.5E-06	mg/kg-day	1.0E-03	mg/kg-day	4.5E-03	
				Copper	4E+02	mg/kg	3.6E-06	mg/kg-day	N/A	N/A	N/A	2.5E-04	mg/kg-day	3.0E-02	mg/kg-day	8.4E-03	
				Lead													
				Manganese	5E+02	mg/kg	4.8E-06	mg/kg-day	N/A	N/A	N/A	3.4E-04	mg/kg-day	7.0E-02	mg/kg-day	4.8E-03	
				Mercury	4E+00	mg/kg	3.5E-08	mg/kg-day	N/A	N/A	N/A	2.4E-06	mg/kg-day	1.0E-04	mg/kg-day	2.4E-02	
				Vanadium	2E+01	mg/kg	1.9E-07	mg/kg-day	N/A	N/A	N/A	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	1.3E-02	
				Zinc	2E+03	mg/kg	2.1E-05	mg/kg-day	N/A	N/A	N/A	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	5.0E-03	
				Exp. Route Total								3E-06					4E-01
				Dermal	Arsenic	4E+02	mg/kg	3.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	4.9E-07	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	7.6E-02
		Cadmium	7E+00		mg/kg	2.1E-09	mg/kg-day	N/A	N/A	N/A	1.5E-07	mg/kg-day	2.5E-05	mg/kg-day	5.9E-03		
		Exp. Route Total								5E-07					8E-02		
		Exposure Point Total								3E-06					5E-01		
		SC09	Ingestion	Arsenic	5E+01	mg/kg	4.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	3.4E-07	3.1E-05	mg/kg-day	5.9E-04	mg/kg-day	5.3E-02	
Mercury	6E-01			mg/kg	5.2E-09	mg/kg-day	N/A	N/A	N/A	3.7E-07	mg/kg-day	1.0E-04	mg/kg-day	3.7E-03			
Exp. Route Total									3E-07					6E-02			
Dermal	Arsenic			5E+01	mg/kg	4.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	6.6E-08	3.1E-06	mg/kg-day	3.0E-04	mg/kg-day	1.0E-02		
	Exp. Route Total							7E-08					1E-02				
Exposure Point Total								4E-07					7E-02				

TABLE 3-7.13.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations					
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient	
							Value	Units	Value	Units		Value	Units	Value	Units		
Sediment (cont.)	Sediment Cores (cont.)	SC10	Ingestion	Arsenic	6E+01	mg/kg	5.5E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	4.2E-07	3.8E-05	mg/kg-day	5.9E-04	mg/kg-day	6.5E-02	
			Exp. Route Total														6E-02
			Dermal	Arsenic	6E+01	mg/kg	5.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	8.1E-08	3.8E-06	mg/kg-day	3.0E-04	mg/kg-day	1.3E-02	
			Exp. Route Total														1E-02
		Exposure Point Total															8E-02
		SC11	Ingestion	Arsenic	1E+02	mg/kg	9.4E-07	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	7.2E-07	6.5E-05	mg/kg-day	5.9E-04	mg/kg-day	1.1E-01	
				Cadmium	6E+00	mg/kg	5.5E-08	mg/kg-day	N/A	N/A	N/A	3.8E-06	mg/kg-day	1.0E-03	mg/kg-day	3.8E-03	
				Copper	3E+02	mg/kg	3.0E-06	mg/kg-day	N/A	N/A	N/A	2.1E-04	mg/kg-day	3.0E-02	mg/kg-day	7.0E-03	
				Lead													
				Manganese	6E+02	mg/kg	5.7E-06	mg/kg-day	N/A	N/A	N/A	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	5.7E-03	
				Mercury	2E+00	mg/kg	2.0E-08	mg/kg-day	N/A	N/A	N/A	1.4E-06	mg/kg-day	1.0E-04	mg/kg-day	1.4E-02	
				Vanadium	7E+01	mg/kg	6.5E-07	mg/kg-day	N/A	N/A	N/A	4.5E-05	mg/kg-day	1.0E-03	mg/kg-day	4.5E-02	
			Exp. Route Total														2E-01
			Dermal	Arsenic	1E+02	mg/kg	9.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.4E-07	6.5E-06	mg/kg-day	3.0E-04	mg/kg-day	2.2E-02	
				Cadmium	6E+00	mg/kg	1.8E-09	mg/kg-day	N/A	N/A	N/A	1.3E-07	mg/kg-day	2.5E-05	mg/kg-day	5.1E-03	
		Exp. Route Total														3E-02	
		Exposure Point Total															2E-01
		SC12	Ingestion	Arsenic	1E+02	mg/kg	1.0E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	8.0E-07	7.3E-05	mg/kg-day	5.9E-04	mg/kg-day	1.2E-01	
				Cadmium	1E+01	mg/kg	9.6E-08	mg/kg-day	N/A	N/A	N/A	6.7E-06	mg/kg-day	1.0E-03	mg/kg-day	6.7E-03	
				Copper	4E+02	mg/kg	4.1E-06	mg/kg-day	N/A	N/A	N/A	2.9E-04	mg/kg-day	3.0E-02	mg/kg-day	9.7E-03	
				Lead													
				Manganese	9E+02	mg/kg	8.4E-06	mg/kg-day	N/A	N/A	N/A	5.9E-04	mg/kg-day	7.0E-02	mg/kg-day	8.4E-03	
				Mercury	3E+00	mg/kg	2.4E-08	mg/kg-day	N/A	N/A	N/A	1.7E-06	mg/kg-day	1.0E-04	mg/kg-day	1.7E-02	
				Vanadium	8E+01	mg/kg	7.7E-07	mg/kg-day	N/A	N/A	N/A	5.4E-05	mg/kg-day	1.0E-03	mg/kg-day	5.4E-02	
			Exp. Route Total														2E-01
			Dermal	Arsenic	1E+02	mg/kg	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-07	7.2E-06	mg/kg-day	3.0E-04	mg/kg-day	2.4E-02	
				Cadmium	1E+01	mg/kg	3.2E-09	mg/kg-day	N/A	N/A	N/A	2.2E-07	mg/kg-day	2.5E-05	mg/kg-day	8.9E-03	
Exp. Route Total														3E-02			
Exposure Point Total															3E-01		

TABLE 3-7.13.CT
 CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Dredger
 Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment (cont.)	Sediment Cores (cont.)	SC13	Ingestion	Arsenic	1E+02	mg/kg	1.1E-06	mg/kg-day	7.7E-01	(mg/kg-day) ⁻¹	8.4E-07	7.6E-05	mg/kg-day	5.9E-04	mg/kg-day	1.3E-01
				Cadmium	1E+01	mg/kg	1.1E-07	mg/kg-day	N/A	N/A	N/A	7.6E-06	mg/kg-day	1.0E-03	mg/kg-day	7.6E-03
				Copper	3E+02	mg/kg	3.1E-06	mg/kg-day	N/A	N/A	N/A	2.2E-04	mg/kg-day	3.0E-02	mg/kg-day	7.2E-03
				Lead												
				Manganese	3E+02	mg/kg	3.2E-06	mg/kg-day	N/A	N/A	N/A	2.3E-04	mg/kg-day	7.0E-02	mg/kg-day	3.2E-03
				Mercury	2E+00	mg/kg	1.4E-08	mg/kg-day	N/A	N/A	N/A	1.0E-06	mg/kg-day	1.0E-04	mg/kg-day	1.0E-02
				Vanadium	8E+01	mg/kg	7.3E-07	mg/kg-day	N/A	N/A	N/A	5.1E-05	mg/kg-day	1.0E-03	mg/kg-day	5.1E-02
				Zinc	2E+03	mg/kg	1.5E-05	mg/kg-day	N/A	N/A	N/A	1.1E-03	mg/kg-day	3.0E-01	mg/kg-day	3.5E-03
			Exp. Route Total								8E-07					2E-01
			Dermal	Arsenic	1E+02	mg/kg	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) ⁻¹	1.6E-07	7.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.5E-02
Cadmium	1E+01	mg/kg		3.6E-09	mg/kg-day	N/A	N/A	N/A	2.5E-07	mg/kg-day	2.5E-05	mg/kg-day	1.0E-02			
Exp. Route Total								2E-07					4E-02			
Exposure Point Total									1E-06					2E-01		
Exposure Medium Total									N/A					N/A		
Medium Total									N/A					N/A		
Total of Receptor Risks Across All Media										N/A	Total of Receptor Hazards Across All Media				N/A	

TABLE 3-8.1.RME
 CALCULATION OF RADIATION CANCER RISKS
 Reasonable Maximum Exposure
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe:
 Receptor Population:
 Receptor Age:

Medium	Exposure Medium	Exposure Point	Exposure Route	Radionuclide of Potential Concern	EPC		Risk Calculation Approach	Cancer Risk Calculations				Cancer Risk
					Value	Units		Intake/Activity		CSF		
								Value	Units	Value	Units	
			Exp. Route Total									
				NOT APPLICABLE								
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												
			Exp. Route Total									
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												

Total of Receptor Risks Across All Media

TABLE 3-8.1.CT
 CALCULATION OF RADIATION CANCER RISKS
 Central Tendency
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe:
 Receptor Population:
 Receptor Age:

Medium	Exposure Medium	Exposure Point	Exposure Route	Radionuclide of Potential Concern	EPC		Risk Calculation Approach	Cancer Risk Calculations				Cancer Risk
					Value	Units		Intake/Activity		CSF		
								Value	Units	Value	Units	
			Exp. Route Total									
				NOT APPLICABLE								
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												
			Exp. Route Total									
			Exp. Route Total									
		Exposure Point Total										
	Exposure Medium Total											
Medium Total												

Total of Receptor Risks Across All Media

TABLE 3-9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	--	4E-09	--	4E-09	Liver
			Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Chemical Total	--	--	2E-07	--	2E-07		--	--	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
		Exposure Medium Total						2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station NR	Arsenic	1E-05	--	4E-06	--	1E-05	Skin	2E-01	--	6E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	2E-03	3E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	8E-05	--	--	8E-05
			Copper	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A	Blood	6E-04	--	--	6E-04
			Chemical Total	1E-05	--	4E-06	--	1E-05		2E-01	--	6E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					3E-01
		Exposure Medium Total						1E-05					3E-01
Medium Total								1E-05					3E-01
Soil	Surface Soil	Station NR	Arsenic	2E-05	--	3E-06	--	2E-05	Skin	3E-01	--	5E-02	4E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	2E-03	3E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	3E-02	--	--	3E-02
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	9E-03	--	--	9E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A	Blood	8E-04	--	--	8E-04
			Chemical Total	2E-05	--	3E-06	--	2E-05		4E-01	--	6E-02	4E-01
			Radionuclide Total										
		Exposure Point Total						2E-05					4E-01
		Exposure Medium Total						2E-05					4E-01
Medium Total								2E-05					4E-01
Receptor Total								3E-05					7E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

7E-01

Total Skin HI = 6E-01
Total Nervous System HI = 4E-02
Total Immune System HI = 4E-04
Total Kidney HI = 4E-02
Total Blood HI = 2E-03
Total General Toxicity HI = 4E-04
Total Liver HI = 1E-04
Total Gastrointestinal System HI = 5E-02
Total Cardiovascular HI = 4E-04
Total Developmental HI = NA

TABLE 3-9.1.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total						3E-08						1E-02	
Medium Total						3E-08						1E-02	
Sediment	Sediment	Station NR	Arsenic	2E-06	--	1E-06	--	3E-06	Skin	9E-02	--	6E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-04	--	2E-03	3E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	4E-05	--	--	4E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-04	--	--	8E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
Zinc	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04			
Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	6E-02	2E-01			
Radionuclide Total													
Exposure Point Total					3E-06						2E-01		
Exposure Medium Total						3E-06						2E-01	
Medium Total						3E-06						2E-01	
Soil	Surface Soil	Station NR	Arsenic	3E-06	--	1E-06	--	4E-06	Skin	2E-01	--	5E-02	2E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-04	--	2E-03	3E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-02	--	--	1E-02
			Copper	N/A	--	--	--	N/A	Kidney	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Zinc	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04
			Chemical Total	3E-06	--	1E-06	--	4E-06		2E-01	--	6E-02	2E-01
			Radionuclide Total										
Exposure Point Total					4E-06						2E-01		
Exposure Medium Total						4E-06						2E-01	
Medium Total						4E-06						2E-01	
Receptor Total						7E-06						4E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-06

Total Hazard Across All Media

4E-01

Total Skin HI = 4E-01
Total Nervous System HI = 2E-02
Total Immune System HI = 2E-04
Total Kidney HI = 2E-02
Total Blood HI = 8E-04
Total General Toxicity HI = 2E-04
Total Liver HI = 9E-05
Total Gastrointestinal System HI = 2E-02
Total Cardiovascular HI = 2E-04
Total Developmental HI = N/A

TABLE 3-9.2.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	--	4E-09	--	4E-09	Liver
			Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	2E-07	--	2E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					3E-02
			Exposure Medium Total					2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station 14	Benzo(a)anthracene	5E-08	--	4E-08	--	9E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	9E-08	--	7E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	5E-09	--	4E-09	--	9E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	6E-05	--	4E-05	1E-04
			Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Arsenic	3E-06	--	1E-06	--	4E-06	Skin	6E-02	--	2E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-04	--	1E-03	2E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	7E-05	--	--	7E-05
			Copper	N/A	--	--	--	N/A	Kidney	1E-03	--	--	1E-03
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Nickel	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Thallium	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Vanadium	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	4E-06	--	2E-06	--	5E-06		8E-02	--	2E-02	1E-01
			Radionuclide Total										
			Exposure Point Total					5E-06					1E-01
			Exposure Medium Total					5E-06					1E-01
Medium Total								5E-06					1E-01
Receptor Total								6E-06					1E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

6E-06

Total Hazard Across All Media

1E-01

Total Skin HI = 8E-02
 Total Nervous System HI = 1E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 1E-02
 Total Blood HI = 6E-03
 Total General Toxicity HI = 4E-04
 Total Liver HI = 1E-04
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = N/A

TABLE 3-9.2.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					1E-02
Exposure Medium Total						3E-08					1E-02		
Medium Total						3E-08					1E-02		
Sediment	Sediment	Station 14	Benzo(a)anthracene	7E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	6E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	7E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-05	--	3E-05	4E-05
			Antimony	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Arsenic	4E-07	--	3E-07	--	8E-07	Skin	2E-02	--	2E-02	4E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-05	--	--	5E-05
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-04	--	7E-04	8E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-05	--	--	2E-05
			Copper	N/A	--	--	--	N/A	Kidney	5E-04	--	--	5E-04
			Lead	N/A	--	--	--	N/A	Nervous System	4E-04	--	--	4E-04
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	9E-05	--	--	9E-05
			Nickel	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Zinc	N/A	--	--	--	N/A	Blood	2E-04	--	--	2E-04
Chemical Total	5E-07	--	4E-07	--	1E-06		3E-02	--	2E-02	5E-02			
Radionuclide Total													
Exposure Point Total					1E-06					5E-02			
Exposure Medium Total						1E-06					5E-02		
Medium Total						1E-06					5E-02		
Receptor Total						1E-06					6E-02		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

6E-02

Total Skin HI = 4E-02
Total Nervous System HI = 3E-03
Total Immune System HI = 2E-04
Total Kidney HI = 4E-03
Total Blood HI = 2E-03
Total General Toxicity HI = 1E-04
Total Liver HI = 9E-05
Total Gastrointestinal System HI = 1E-02
Total Cardiovascular HI = 5E-05
Total Developmental HI = N/A

TABLE 3-9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	--	4E-09	--	4E-09	Liver	--	--	1E-04	1E-04
			Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	2E-07	--	2E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					
Exposure Medium Total					2E-07						3E-02		
Medium Total					2E-07						3E-02		
Sediment	Sediment	Station 22/TT-22	Tetrachloroethene	9E-08	--	--	--	9E-08	Liver	1E-04	--	--	1E-04
			Trichloroethene	2E-08	--	--	--	2E-08	Liver	1E-03	--	--	1E-03
			Benzo(a)anthracene	1E-08	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	8E-08	--	7E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-09	--	2E-09	--	4E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-09	--	8E-09	--	2E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	1E-05	--	8E-06	2E-05
			Aroclor 1260	3E-09	--	3E-09	--	6E-09	Immune System	7E-04	--	5E-04	1E-03
			Antimony	N/A	--	--	--	N/A	Blood	4E-01	--	--	4E-01
			Arsenic	3E-06	--	1E-06	--	5E-06	Skin	6E-02	--	2E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-04	--	2E-03	2E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-05	--	--	2E-05
			Copper	N/A	--	--	--	N/A	Kidney	5E-04	--	--	5E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-04	--	--	8E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-04	--	--	2E-04
Chemical Total	4E-06	--	1E-06	--	5E-06		5E-01	--	2E-02	5E-01			
Radionuclide Total													
Exposure Point Total					5E-06						5E-01		
Exposure Medium Total					5E-06						5E-01		
Medium Total					5E-06						5E-01		
Receptor Total					5E-06						5E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

5E-06

Total Hazard Across All Media

5E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to

5E-06

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

5E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

5E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

5E-06

Total Skin HI =

8E-02

Total Nervous System HI =

6E-03

Total Immune System HI =

2E-03

Total Kidney HI =

2E-02

Total Blood HI =

4E-01

Total General Toxicity HI =

3E-04

Total Liver HI =

1E-03

Total Gastrointestinal System HI =

2E-02

Total Cardiovascular HI =

3E-04

Total Developmental HI =

N/A

TABLE 3-9.3.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05	
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03	
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04	
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02	
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03	
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04	
			Mercury	--	--	N/A	--	N/A						
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02	
			Radionuclide Total											
			Exposure Point Total					3E-08						1E-02
Exposure Medium Total					3E-08						1E-02			
Medium Total					3E-08						1E-02			
Sediment	Sediment	Station 22/TT-22	Tetrachloroethene	1E-08	--	--	--	1E-08	Liver	7E-05	--	--	7E-05	
			Trichloroethene	3E-09	--	--	--	3E-09	Liver	6E-04	--	--	6E-04	
			Benzo(a)anthracene	2E-09	--	3E-09	--	5E-09	N/A	N/A	--	N/A	N/A	
			Benzo(a)pyrene	1E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A	
			Benzo(b)fluoranthene	3E-09	--	4E-09	--	7E-09	N/A	N/A	--	N/A	N/A	
			Benzo(k)fluoranthene	3E-10	--	5E-10	--	8E-10	N/A	N/A	--	N/A	N/A	
			Dibenz(a,h)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A	
			Indeno(1,2,3-cd)pyrene	1E-09	--	2E-09	--	4E-09	N/A	N/A	--	N/A	N/A	
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	5E-06	--	7E-06	1E-05	
			Aroclor 1260	3E-10	--	5E-10	--	7E-10	Immune System	3E-04	--	5E-04	9E-04	
			Antimony	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02	
			Arsenic	6E-07	--	4E-07	--	1E-06	Skin	3E-02	--	2E-02	5E-02	
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-04	--	2E-03	2E-03	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-05	--	--	1E-05	
			Copper	N/A	--	--	--	N/A	Kidney	2E-04	--	--	2E-04	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-04	--	--	4E-04	
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03	
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04	
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02	
			Zinc	N/A	--	--	--	N/A	Blood	8E-05	--	--	8E-05	
			Chemical Total	6E-07	--	4E-07	--	1E-06		9E-02	--	2E-02	1E-01	
			Radionuclide Total											
			Exposure Point Total					1E-06						1E-01
			Exposure Medium Total					1E-06						1E-01
			Medium Total					1E-06						1E-01
Receptor Total					1E-06						1E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

1E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to

1E-06

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

1E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

1E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

1E-06

Total Skin HI =

5E-02

Total Nervous System HI =

3E-03

Total Immune System HI =

1E-03

Total Kidney HI =

1E-02

Total Blood HI =

4E-02

Total General Toxicity HI =

2E-04

Total Liver HI =

7E-04

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

2E-04

Total Developmental HI =

N/A

TABLE 3-9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	--	4E-09	--	4E-09	Liver
			Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Chemical Total	--	--	2E-07	--	2E-07		--	--	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total						2E-07					3E-02
		Exposure Medium Total						2E-07					3E-02
Medium Total								2E-07					3E-02
Sediment	Sediment	Station WH	Trichloroethene	1E-09	--	--	--	1E-09	Liver	8E-05	--	--	8E-05
			Benzo(a)anthracene	2E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	4E-07	--	3E-07	--	8E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	6E-08	--	5E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	3E-09	--	3E-09	--	6E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	1E-05	--	1E-05	2E-05
			Aroclor 1260	7E-09	--	6E-09	--	1E-08	Immune System	1E-03	--	1E-03	2E-03
			Antimony	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Arsenic	9E-05	--	3E-05	--	1E-04	Skin	2E+00	--	5E-01	2E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	6E-04	--	--	6E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-03	--	1E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-01	--	--	1E-01
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Thallium	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Zinc	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-04	--	--	2E-04
			Chemical Total	9E-05	--	3E-05	--	1E-04		2E+00	--	5E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						1E-04					2E+00
		Exposure Medium Total						1E-04					2E+00
Medium Total								1E-04					2E+00
Receptor Total								1E-04					2E+00

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-04

Total Hazard Across All Media

2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

1E-04

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

1E-04

Using the MADEP slope factor for TCE, the risk for this receptor would change to

1E-04

Total Skin HI =

2E+00

Total Nervous System HI =

1E-01

Total Immune System HI =

3E-03

Total Kidney HI =

8E-02

Total Blood HI =

5E-02

Total General Toxicity HI =

1E-03

Total Liver HI =

2E-04

Total Gastrointestinal System HI =

2E-02

Total Cardiovascular HI =

6E-04

Total Developmental HI =

N/A

TABLE 3-9.4.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					1E-02
Exposure Medium Total						3E-08					1E-02		
Medium Total						3E-08					1E-02		
Sediment	Sediment	Station WH	Trichloroethene	2E-10	--	--	--	2E-10	Liver	4E-05	--	--	4E-05
			Benzo(a)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	7E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	5E-10	--	8E-10	--	1E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	4E-09	--	6E-09	--	9E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	5E-06	--	8E-06	1E-05
			Aroclor 1260	4E-10	--	7E-10	--	1E-09	Immune System	5E-04	--	8E-04	1E-03
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	1E-05	--	1E-05	--	2E-05	Skin	8E-01	--	5E-01	1E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	1E-02	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Lead	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-02	--	--	7E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-04	--	--	1E-04
			Chemical Total	1E-05	--	1E-05	--	2E-05		9E-01	--	5E-01	1E+00
			Radionuclide Total										
			Exposure Point Total					2E-05					1E+00
			Exposure Medium Total						2E-05				1E+00
			Medium Total						2E-05				1E+00
Receptor Total						2E-05				1E+00			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to 2E-05

Total Skin HI = 1E+00
Total Nervous System HI = 7E-02
Total Immune System HI = 1E-03
Total Kidney HI = 5E-02
Total Blood HI = 2E-02
Total General Toxicity HI = 7E-04
Total Liver HI = 1E-04
Total Gastrointestinal System HI = 1E-02
Total Cardiovascular HI = 3E-04
Total Developmental HI = N/A

TABLE 3-9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	--	4E-09	--	4E-09	Liver	--	--	1E-04	1E-04
			Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	2E-07	--	2E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					
Exposure Medium Total						2E-07						3E-02	
Medium Total						2E-07						3E-02	
Sediment	Sediment	Station WG	Trichloroethene	1E-09	--	--	--	1E-09	Liver	7E-05	--	--	7E-05
			Benzo(a)anthracene	6E-09	--	5E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	7E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	1E-08	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	8E-10	--	7E-10	--	2E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	6E-09	--	5E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-06	--	3E-06	7E-06
			Aroclor 1260	1E-09	--	1E-09	--	2E-09	Immune System	3E-04	--	2E-04	5E-04
			Antimony	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Arsenic	1E-05	--	4E-06	--	2E-05	Skin	2E-01	--	7E-02	3E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	6E-04	--	--	6E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	7E-03	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	8E-04	--	--	8E-04
			Thallium	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02			
Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03			
Chemical Total	1E-05	--	4E-06	--	2E-05		3E-01	--	8E-02	4E-01			
Radionuclide Total													
Exposure Point Total					2E-05						4E-01		
Exposure Medium Total						2E-05						4E-01	
Medium Total						2E-05						4E-01	
Receptor Total						2E-05						4E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

4E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

2E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

2E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

2E-05

Total Skin HI =

3E-01

Total Nervous System HI =

2E-02

Total Immune System HI =

9E-04

Total Kidney HI =

5E-02

Total Blood HI =

2E-02

Total General Toxicity HI =

1E-03

Total Liver HI =

2E-04

Total Gastrointestinal System HI =

2E-02

Total Cardiovascular HI =

6E-04

Total Developmental HI =

N/A

TABLE 3-9.5.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total					3E-08						1E-02		
Medium Total					3E-08						1E-02		
Sediment	Sediment	Station WG	Trichloroethene	2E-10	--	--	--	2E-10	Liver	3E-05	--	--	3E-05
			Benzo(a)anthracene	9E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-09	--	3E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	1E-10	--	2E-10	--	4E-10	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-06	--	3E-06	5E-06
			Aroclor 1260	1E-10	--	2E-10	--	3E-10	Immune System	1E-04	--	2E-04	3E-04
			Antimony	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Arsenic	2E-06	--	1E-06	--	3E-06	Skin	1E-01	--	7E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	7E-03	8E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02			
Zinc	N/A	--	--	--	N/A	Blood	9E-04	--	--	9E-04			
Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	8E-02	2E-01			
Radionuclide Total													
Exposure Point Total					3E-06						2E-01		
Exposure Medium Total					3E-06						2E-01		
Medium Total					3E-06						2E-01		
Receptor Total					3E-06						2E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-06

Total Skin HI =

2E-01

Total Nervous System HI =

1E-02

Total Immune System HI =

5E-04

Total Kidney HI =

3E-02

Total Blood HI =

8E-03

Total General Toxicity HI =

6E-04

Total Liver HI =

1E-04

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

3E-04

Total Developmental HI =

N/A

TABLE 3-9.6.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WS/WSS (Reach 1)	Heptachlor epoxide	--	--	2E-09	--	2E-09	Liver	--	--	3E-04	3E-04
			Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	NA	--	NA	Kidney	--	--	3E-04	3E-04
			Chromium VI	--	--	NA	--	NA	Gastrointestinal System	--	--	3E-02	3E-02
			Lead	--	--	NA	--	NA	Nervous System	--	--	4E-03	4E-03
			Manganese	--	--	NA	--	NA	Immune System	--	--	6E-04	6E-04
			Mercury	--	--	NA	--	NA					
			Chemical Total	--	--	1E-07	--	1E-07		--	--	4E-02	4E-02
			Radionuclide Total										
			Exposure Point Total					1E-07					
Exposure Medium Total						1E-07						4E-02	
Medium Total						1E-07						4E-02	
Sediment	Sediment	Station WS/WSS	Antimony	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Arsenic	5E-06	--	4E-06	--	8E-06	Skin	3E-01	--	2E-01	5E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-03	--	--	1E-03
			Cadmium	N/A	--	NA	--	NA	Kidney	8E-03	--	3E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Thallium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A					
			Chromium VI	N/A	--	--	--	NA	Gastrointestinal System	2E-04	--	--	2E-04
			Chemical Total	5E-06	--	4E-06	--	8E-06		4E-01	--	2E-01	6E-01
			Radionuclide Total										
Exposure Point Total					8E-06						6E-01		
Exposure Medium Total						8E-06						6E-01	
Medium Total						8E-06						6E-01	
Soil	Surface Soil	Station WS/WSS	Arsenic	2E-06	--	2E-07	--	2E-06	Skin	5E-02	--	8E-03	6E-02
			Cadmium	N/A	--	NA	--	NA	Kidney	3E-04	--	6E-04	9E-04
			Chromium VI	N/A	--	--	--	NA	Gastrointestinal System	9E-03	--	--	9E-03
			Copper	N/A	--	--	--	NA	Kidney	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	NA	Nervous System	4E-03	--	--	4E-03
			Mercury	N/A	--	--	--	NA	Nervous System	2E-03	--	--	2E-03
			Thallium	N/A	--	--	--	NA	Blood	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	NA	Kidney	3E-02	--	--	3E-02
			Zinc	N/A	--	--	--	NA	Blood	3E-04	--	--	3E-04
			Chemical Total	2E-06	--	2E-07	--	2E-06		1E-01	--	9E-03	1E-01
Radionuclide Total													
Exposure Point Total					2E-06						1E-01		
Exposure Medium Total						2E-06						1E-01	
Medium Total						2E-06						1E-01	
Receptor Total						1E-05						8E-01	

-- = Not Evaluated
NA = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

8E-01

Total Skin H = 5E-01
Total Nervous System H = 3E-02
Total Immune System H = 6E-04
Total Kidney H = 1E-01
Total Blood H = 5E-02
Total General Toxicity H = 2E-03
Total Liver H = 3E-04
Total Gastrointestinal System H = 4E-02
Total Cardiovascular H = 1E-03
Total Developmental H = NA

TABLE 3-9.7.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	9E-08	--	9E-08	Skin	--	--	9E-04	9E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	9E-05	9E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	2E-07	--	2E-07		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					
Exposure Medium Total						2E-07						1E-02	
Medium Total						2E-07						1E-02	
Sediment	Sediment	Station TT-30	Arsenic	5E-05	--	2E-05	--	7E-05	Skin	9E-01	--	3E-01	1E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	8E-03	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Copper	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-01	--	--	4E-01
			Mercury	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Nickel	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Thallium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Zinc	N/A	--	--	--	N/A	Gastrointestinal System	1E-03	--	--	1E-03
			Chemical Total	5E-05	--	2E-05	--	7E-05		1E+00	--	3E-01	2E+00
			Radionuclide Total										
			Exposure Point Total					7E-05					
Exposure Medium Total						7E-05						2E+00	
Medium Total						7E-05						2E+00	
Receptor Total						7E-05						2E+00	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

7E-05

Total Hazard Across All Media

2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

7E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

7E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

7E-05

Total Skin HI =

1E+00

Total Nervous System HI =

4E-01

Total Immune System HI =

9E-05

Total Kidney HI =

8E-02

Total Blood HI =

1E-02

Total General Toxicity HI =

2E-03

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

5E-03

Total Cardiovascular HI =

2E-04

Total Developmental HI =

N/A

TABLE 3-9.7.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Sediment	Sediment	Station TT-30	Arsenic	8E-06	--	6E-06	--	1E-05	Skin	4E-01	--	3E-01	7E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	8E-03	9E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	8E-04	--	--	8E-04
			Copper	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Lead	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-01	--	--	2E-01
			Nickel	N/A	--	--	--	N/A	General Toxicity	9E-05	--	--	9E-05
			Thallium	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A	Blood	9E-04	--	--	9E-04
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	5E-04	--	--	5E-04
			Chemical Total	8E-06	--	6E-06	--	1E-05		7E-01	--	3E-01	1E+00
			Radionuclide Total										
			Exposure Point Total					1E-05					1E+00
Exposure Medium Total					1E-05					1E+00			
Medium Total					1E-05					1E+00			
Receptor Total					1E-05					1E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

1E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

1E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

1E-05

Total Skin HI = 7E-01
 Total Nervous System HI = 2E-01
 Total Immune System HI = 4E-05
 Total Kidney HI = 4E-02
 Total Blood HI = 5E-03
 Total General Toxicity HI = 9E-04
 Total Liver HI = 2E-03
 Total Gastrointestinal System HI = 2E-03
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = NA

TABLE 3-9.8.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total						6E-07					5E-02		
Medium Total						6E-07					5E-02		
Sediment	Sediment	Station CB-01	Antimony	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Arsenic	1E-05	--	4E-06	--	1E-05	Skin	2E-01	--	6E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	4E-02	6E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Copper	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Lead	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-02	--	--	6E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Nickel	N/A	--	--	--	N/A	Blood	6E-02	--	--	6E-02
			Thallium	N/A	--	--	--	N/A	Kidney	2E-01	--	--	2E-01
			Vanadium	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-05	--	4E-06	--	1E-05		6E-01	--	1E-01	7E-01
			Radionuclide Total										
Exposure Point Total					1E-05					7E-01			
Exposure Medium Total						1E-05					7E-01		
Medium Total						1E-05					7E-01		
Receptor Total						1E-05					7E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 1E-05

Total Hazard Across All Media 7E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 1E-05
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 1E-05
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 1E-05

Total Skin HI = 3E-01
 Total Nervous System HI = 9E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 3E-01
 Total Blood HI = 7E-02
 Total General Toxicity HI = 2E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = NA

TABLE 3-9.8.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					
Exposure Medium Total						8E-08						2E-02	
Medium Total						8E-08						2E-02	
Sediment	Sediment	Station CB-01	Antimony	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Arsenic	1E-06	--	9E-07	--	2E-06	Skin	7E-02	--	5E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	6E-04	--	--	6E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	3E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	7E-04	--	--	7E-04
			Nickel	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Thallium	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Vanadium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-06	--	9E-07	--	2E-06		2E-01	--	8E-02	3E-01
			Radionuclide Total										
Exposure Point Total					2E-06						3E-01		
Exposure Medium Total						2E-06						3E-01	
Medium Total						2E-06						3E-01	
Receptor Total						2E-06						3E-01	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 2E-06

Total Hazard Across All Media 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 2E-06

Total Skin HI = 1E-01
 Total Nervous System HI = 3E-02
 Total Immune System HI = 1E-04
 Total Kidney HI = 1E-01
 Total Blood HI = 3E-02
 Total General Toxicity HI = 9E-04
 Total Liver HI = 5E-03
 Total Gastrointestinal System HI = 4E-03
 Total Cardiovascular HI = 6E-04
 Total Developmental HI = N/A

TABLE 3-9.9.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
		Exposure Point Total						6E-07					5E-02
	Exposure Medium Total							6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-02	Antimony	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Arsenic	7E-06	--	3E-06	--	1E-05	Skin	1E-01	--	4E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-03	--	--	5E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	2E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chemical Total	7E-06	--	3E-06	--	1E-05		2E-01	--	6E-02	3E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					3E-01
	Exposure Medium Total							1E-05					3E-01
Medium Total								1E-05					3E-01
Receptor Total								1E-05					3E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 1E-05
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 1E-05
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 1E-05

1E-05

1E-05

1E-05

Total Skin HI = 2E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 9E-02
 Total Blood HI = 1E-02
 Total General Toxicity HI = 1E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 5E-03
 Total Developmental HI = N/A

TABLE 3-9.9.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					2E-02
Exposure Medium Total						8E-08					2E-02		
Medium Total						8E-08					2E-02		
Sediment	Sediment	Station CB-02	Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	9E-07	--	7E-07	--	2E-06	Skin	5E-02	--	3E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	1E-02	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	7E-05	--	--	7E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04
			Chemical Total	9E-07	--	7E-07	--	2E-06		9E-02	--	5E-02	1E-01
Radionuclide Total													
Exposure Point Total					2E-06					1E-01			
Exposure Medium Total						2E-06					1E-01		
Medium Total						2E-06					1E-01		
Receptor Total						2E-06					1E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

1E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

2E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

2E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

2E-06

Total Skin HI =

8E-02

Total Nervous System HI =

8E-03

Total Immune System HI =

1E-04

Total Kidney HI =

4E-02

Total Blood HI =

4E-03

Total General Toxicity HI =

4E-04

Total Liver HI =

5E-03

Total Gastrointestinal System HI =

4E-03

Total Cardiovascular HI =

2E-03

Total Developmental HI =

N/A

TABLE 3-9.10.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total					6E-07					5E-02			
Medium Total					6E-07					5E-02			
Sediment	Sediment	Station CB-03	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	1E-04	--	4E-05	--	1E-04	Skin	2E+00	--	6E-01	3E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	6E-02	8E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	4E-03	--	--	4E-03
			Nickel	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Thallium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-04	--	4E-05	--	1E-04		2E+00	--	7E-01	3E+00
			Radionuclide Total										
Exposure Point Total					1E-04					3E+00			
Exposure Medium Total					1E-04					3E+00			
Medium Total					1E-04					3E+00			
Receptor Total					1E-04					3E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 1E-04

Total Hazard Across All Media 3E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 1E-04
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 1E-04
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 1E-04

Total Skin HI = 3E+00
 Total Nervous System HI = 7E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 2E-01
 Total Blood HI = 6E-02
 Total General Toxicity HI = 4E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = NA

TABLE 3-9.10.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					2E-02
Exposure Medium Total						8E-08					2E-02		
Medium Total						8E-08					2E-02		
Sediment	Sediment	Station CB-03	Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	1E-05	--	9E-06	--	2E-05	Skin	7E-01	--	5E-01	1E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	7E-04	--	--	7E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-03	--	4E-02	5E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Lead	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Thallium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-05	--	9E-06	--	2E-05		8E-01	--	5E-01	1E+00
			Radionuclide Total										
Exposure Point Total					2E-05					1E+00			
Exposure Medium Total						2E-05					1E+00		
Medium Total						2E-05					1E+00		
Receptor Total						2E-05					1E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

2E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

2E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

2E-05

Total Skin HI =	1E+00
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	7E-04
Total Developmental HI =	N/A

TABLE 3-9.11.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total					6E-07					5E-02			
Medium Total					6E-07					5E-02			
Sediment	Sediment	Station CB-04	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	3E-05	--	1E-05	--	4E-05	Skin	6E-01	--	2E-01	8E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	2E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	7E-03	--	--	7E-03
			Nickel	N/A	--	--	--	N/A	Blood	1E-01	--	--	1E-01
			Thallium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	3E-05	--	1E-05	--	4E-05		1E+00	--	2E-01	1E+00
			Radionuclide Total										
Exposure Point Total					4E-05					1E+00			
Exposure Medium Total					4E-05					1E+00			
Medium Total					4E-05					1E+00			
Receptor Total					5E-05					1E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 5E-05

Total Hazard Across All Media 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 4E-05
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 4E-05
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 4E-05

Total Skin HI = 8E-01
 Total Nervous System HI = 8E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 2E-01
 Total Blood HI = 2E-01
 Total General Toxicity HI = 8E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = NA

TABLE 3-9.11.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					
Exposure Medium Total						8E-08						2E-02	
Medium Total						8E-08						2E-02	
Sediment	Sediment	Station CB-04	Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Arsenic	4E-06	--	3E-06	--	7E-06	Skin	2E-01	--	1E-01	4E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	8E-04	--	--	8E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	2E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Lead	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	9E-03	--	--	9E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Nickel	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Thallium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Vanadium	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	4E-06	--	3E-06	--	7E-06		3E-01	--	2E-01	5E-01
			Radionuclide Total										
Exposure Point Total					7E-06						5E-01		
Exposure Medium Total						7E-06						5E-01	
Medium Total						7E-06						5E-01	
Receptor Total						7E-06						5E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 7E-06

Total Hazard Across All Media 5E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 7E-06
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 7E-06
Using the MADEP slope factor for TCE, the risk for this receptor would change to 7E-06

Total Skin HI = 4E-01
Total Nervous System HI = 3E-02
Total Immune System HI = 1E-04
Total Kidney HI = 8E-02
Total Blood HI = 3E-02
Total General Toxicity HI = 3E-03
Total Liver HI = 5E-03
Total Gastrointestinal System HI = 4E-03
Total Cardiovascular HI = 8E-04
Total Developmental HI = N/A

TABLE 3-9.12.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05	Arsenic	2E-05	--	4E-06	--	2E-05	Skin	4E-01	--	6E-02	4E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	3E-03	4E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	9E-02	--	--	9E-02
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Thallium	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	2E-05	--	4E-06	--	2E-05		6E-01	--	7E-02	6E-01
		Exposure Point Total				2E-05						6E-01	
	Exposure Medium Total					2E-05						6E-01	
Medium Total						2E-05						6E-01	
Receptor Total						2E-05						6E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

6E-01

Total Skin HI =	4E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	6E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	9E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.12.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05	Arsenic	1E-05	--	9E-07	--	1E-05	Skin	3E-01	--	5E-02	3E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	2E-03	3E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	7E-02	--	--	7E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Zinc	N/A	--	--	--	N/A	Blood	8E-04	--	--	8E-04
			Chemical Total	1E-05	--	9E-07	--	1E-05		4E-01	--	5E-02	5E-01
Radionuclide Total													
		Exposure Point Total										5E-01	
		Exposure Medium Total										5E-01	
		Medium Total										5E-01	
		Receptor Total										5E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	9E-03
Total Immune System HI =	N/A
Total Kidney HI =	4E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.13.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total					6E-07					5E-02			
Medium Total					6E-07					5E-02			
Sediment	Sediment	Station CB-06	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	3E-05	--	9E-06	--	3E-05	Skin	5E-01	--	1E-01	6E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-03	--	--	1E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-02	--	7E-02	1E-01
			Chromium III	N/A	--	--	--	N/A	General Toxicity	6E-04	--	--	6E-04
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	4E-04	--	--	4E-04
			Chemical Total	3E-05	--	9E-06	--	3E-05		8E-01	--	2E-01	1E+00
			Radionuclide Total										
Exposure Point Total					3E-05					1E+00			
Exposure Medium Total					3E-05					1E+00			
Medium Total					3E-05					1E+00			
Receptor Total					3E-05					1E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-05

Total Skin HI = 6E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 3E-01
 Total Blood HI = 1E-01
 Total General Toxicity HI = 3E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 1E-03
 Total Developmental HI = N/A

TABLE 3-9.13.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					
Exposure Medium Total						8E-08						2E-02	
Medium Total						8E-08						2E-02	
Sediment	Sediment	Station CB-06	Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Arsenic	3E-06	--	2E-06	--	5E-06	Skin	2E-01	--	1E-01	3E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-04	--	--	5E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	5E-02	7E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Thallium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Vanadium	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A					
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-04	--	--	2E-04
			Chemical Total	3E-06	--	2E-06	--	5E-06		3E-01	--	2E-01	5E-01
			Radionuclide Total										
Exposure Point Total					5E-06						5E-01		
Exposure Medium Total						5E-06						5E-01	
Medium Total						5E-06						5E-01	
Receptor Total						5E-06						5E-01	

-- = Not Evaluated
NA = Not Applicable

Total Risk Across All Media

5E-06

Total Hazard Across All Media

5E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

5E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

5E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

5E-06

Total Skin HI = 3E-01
Total Nervous System HI = 8E-03
Total Immune System HI = 1E-04
Total Kidney HI = 1E-01
Total Blood HI = 5E-02
Total General Toxicity HI = 1E-03
Total Liver HI = 5E-03
Total Gastrointestinal System HI = 5E-03
Total Cardiovascular HI = 5E-04
Total Developmental HI = NA

TABLE 3-9.14.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-03	2E-03	
			Arsenic	--	--	9E-08	--	9E-08	Skin	--	--	9E-04	9E-04	
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04	
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03	
			Lead											
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03	
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	9E-05	9E-05	
			Chemical Total	--	--	2E-07	--	2E-07		--	--	1E-02	1E-02	
			Radionuclide Total											
			Exposure Point Total					2E-07						1E-02
Exposure Medium Total					2E-07						1E-02			
Medium Total					2E-07						1E-02			
Sediment	Sediment	Station CB-07	Arsenic	9E-06	--	3E-06	--	1E-05	Skin	2E-01	--	6E-02	2E-01	
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	5E-03	8E-03	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04	
			Copper	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03	
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03	
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04	
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02	
Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03				
Chemical Total	9E-06	--	3E-06	--	1E-05		2E-01	--	6E-02	3E-01				
Radionuclide Total														
Exposure Point Total					1E-05						3E-01			
Exposure Medium Total					1E-05						3E-01			
Medium Total					1E-05						3E-01			
Receptor Total					1E-05						3E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 1E-05

Total Hazard Across All Media 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to 1E-05

Total Skin HI = 2E-01
Total Nervous System HI = 1E-02
Total Immune System HI = 9E-05
Total Kidney HI = 6E-02
Total Blood HI = 1E-03
Total General Toxicity HI = 7E-04
Total Liver HI = 2E-03
Total Gastrointestinal System HI = 4E-03
Total Cardiovascular HI = 4E-04
Total Developmental HI = N/A

TABLE 3-9.14.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station CB-07	Arsenic	2E-06	--	1E-06	--	3E-06	Skin	9E-02	--	6E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	5E-03	6E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	1E-03	--	--	1E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media **3E-06**

Total Hazard Across All Media **2E-01**

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to **3E-06**
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to **3E-06**
 Using the MADEP slope factor for TCE, the risk for this receptor would change to **3E-06**

Total Skin HI = **1E-01**
 Total Nervous System HI = **6E-03**
 Total Immune System HI = **4E-05**
 Total Kidney HI = **3E-02**
 Total Blood HI = **5E-04**
 Total General Toxicity HI = **4E-04**
 Total Liver HI = **2E-03**
 Total Gastrointestinal System HI = **1E-03**
 Total Cardiovascular HI = **2E-04**
 Total Developmental HI = **N/A**

TABLE 3-9.15.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OUG

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	--	2E-07	--	2E-07	Liver	--	--	7E-03	7E-03
			Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	3E-04	3E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-07	--	5E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					5E-07					3E-02
Exposure Medium Total							5E-07				3E-02		
Medium Total							5E-07				3E-02		
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	1E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	3E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	1E-09	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-09	--	6E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	9E-06	--	7E-06	2E-05
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	3E-05	--	1E-05	--	4E-05	Skin	6E-01	--	2E-01	8E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-03	--	--	1E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	8E-03	--	2E-02	3E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Zinc	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-03	--	--	1E-03
			Chemical Total	3E-05	--	1E-05	--	4E-05		7E-01	--	2E-01	9E-01
Radionuclide Total													
Exposure Point Total					4E-05					9E-01			
Exposure Medium Total							4E-05				9E-01		
Medium Total							4E-05				9E-01		
Receptor Total							4E-05				1E+00		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

4E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

4E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

4E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

4E-05

Total Skin HI =

8E-01

Total Nervous System HI =

8E-02

Total Immune System HI =

3E-04

Total Kidney HI =

9E-02

Total Blood HI =

3E-02

Total General Toxicity HI =

3E-03

Total Liver HI =

7E-03

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

1E-03

Total Developmental HI =

N/A

TABLE 3-9.15.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	7E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-09	--	3E-09	--	4E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	7E-11	--	1E-10	--	2E-10	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	4E-10	--	7E-10	--	1E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-06	--	2E-06	4E-06
			Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	2E-06	--	1E-06	--	3E-06	Skin	1E-01	--	6E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	6E-03	7E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-05	--	--	9E-05
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
			Zinc	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	6E-05	--	--	6E-05
			Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	7E-02	2E-01
Radionuclide Total													
Exposure Point Total					3E-06					2E-01			
Exposure Medium Total					3E-06					2E-01			
Medium Total					3E-06					2E-01			
Receptor Total					3E-06					2E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-06

Total Skin HI =

2E-01

Total Nervous System HI =

1E-02

Total Immune System HI =

4E-05

Total Kidney HI =

2E-02

Total Blood HI =

4E-03

Total General Toxicity HI =

3E-04

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

2E-03

Total Cardiovascular HI =

2E-04

Total Developmental HI =

N/A

TABLE 3-9.16.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	--	2E-07	--	2E-07	Liver	--	--	7E-03	7E-03
			Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	3E-04	3E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-07	--	5E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					5E-07					3E-02
Exposure Medium Total						5E-07					3E-02		
Medium Total						5E-07					3E-02		
Sediment	Sediment	Station 09	Benzo(a)anthracene	6E-08	--	5E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	6E-07	--	5E-07	--	1E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	--	8E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Antimony	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Arsenic	5E-06	--	2E-06	--	6E-06	Skin	8E-02	--	3E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	7E-04	--	--	7E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	2E-03	3E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	6E-05	--	--	6E-05
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	7E-04	--	--	7E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	6E-06	--	3E-06	--	8E-06		2E-01	--	3E-02	2E-01
Radionuclide Total													
Exposure Point Total					8E-06					2E-01			
Exposure Medium Total						8E-06				2E-01			
Medium Total						8E-06				2E-01			
Receptor Total						9E-06				3E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 9E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 9E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 9E-06

9E-06
 9E-06
 9E-06

Total Skin HI = 1E-01
 Total Nervous System HI = 7E-02
 Total Immune System HI = 3E-04
 Total Kidney HI = 3E-02
 Total Blood HI = 3E-02
 Total General Toxicity HI = 7E-04
 Total Liver HI = 7E-03
 Total Gastrointestinal System HI = 1E-02
 Total Cardiovascular HI = 7E-04
 Total Developmental HI = N/A

TABLE 3-9.16.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Sediment	Sediment	Station 09	Benzo(a)anthracene	3E-09	--	5E-09	--	9E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	3E-08	--	6E-08	--	9E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	9E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	8E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	5E-09	--	9E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	--	3E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Antimony	N/A	--	--	--	N/A	Blood	6E-04	--	--	6E-04
			Arsenic	3E-07	--	2E-07	--	4E-07	Skin	1E-02	--	9E-03	2E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-04	--	7E-04	9E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-06	--	--	9E-06
			Copper	N/A	--	--	--	N/A	Kidney	5E-04	--	--	5E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	9E-04	--	--	9E-04
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Thallium	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Zinc	N/A	--	--	--	N/A	Blood	2E-04	--	--	2E-04
			Chemical Total	3E-07	--	3E-07	--	6E-07		2E-02	--	1E-02	3E-02
Radionuclide Total													
Exposure Point Total					6E-07					3E-02			
Exposure Medium Total					6E-07					3E-02			
Medium Total					6E-07					3E-02			
Receptor Total					6E-07					4E-02			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

6E-07

Total Hazard Across All Media

4E-02

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 6E-07
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 6E-07
Using the MADEP slope factor for TCE, the risk for this receptor would change to 6E-07

6E-07
6E-07
6E-07

Total Skin HI = 2E-02
Total Nervous System HI = 4E-03
Total Immune System HI = 4E-05
Total Kidney HI = 5E-03
Total Blood HI = 5E-03
Total General Toxicity HI = 1E-04
Total Liver HI = 2E-03
Total Gastrointestinal System HI = 1E-03
Total Cardiovascular HI = 1E-04
Total Developmental HI = N/A

TABLE 3-9.17.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	--	2E-07	--	2E-07	Liver	--	--	7E-03	7E-03
			Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	3E-04	3E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-07	--	5E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					5E-07					3E-02
Exposure Medium Total					5E-07					3E-02			
Medium Total					5E-07					3E-02			
Soil	Surface Soil	Station DA	Arsenic	5E-05	--	1E-05	--	6E-05	Skin	9E-01	--	2E-01	1E+00
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	1E-02	2E-02
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-01	--	--	2E-01
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-02	--	--	6E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Thallium	N/A	--	--	--	N/A	Blood	6E-02	--	--	6E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Zinc	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Chemical Total	5E-05	--	1E-05	--	6E-05		1E+00	--	2E-01	2E+00
Radionuclide Total													
Exposure Point Total					6E-05					2E+00			
Exposure Medium Total					6E-05					2E+00			
Medium Total					6E-05					2E+00			
Receptor Total					6E-05					2E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

6E-05

Total Hazard Across All Media

2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

6E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

6E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

6E-05

Total Skin HI =

1E+00

Total Nervous System HI =

1E-01

Total Immune System HI =

3E-04

Total Kidney HI =

9E-02

Total Blood HI =

6E-02

Total General Toxicity HI =

N/A

Total Liver HI =

7E-03

Total Gastrointestinal System HI =

2E-01

Total Cardiovascular HI =

N/A

Total Developmental HI =

N/A

TABLE 3-9.17.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Soil	Surface Soil	Station DA	Arsenic	3E-06	--	1E-06	--	4E-06	Skin	2E-01	--	5E-02	2E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-04	--	1E-03	2E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	3E-02	--	--	3E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Zinc	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Chemical Total	3E-06	--	1E-06	--	4E-06		2E-01	--	5E-02	3E-01
Radionuclide Total													
Exposure Point Total					4E-06					3E-01			
Exposure Medium Total					4E-06					3E-01			
Medium Total					4E-06					3E-01			
Receptor Total					4E-06					3E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

4E-06

Total Hazard Across All Media

3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

4E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

4E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

4E-06

Total Skin HI =

2E-01

Total Nervous System HI =

7E-03

Total Immune System HI =

4E-05

Total Kidney HI =

1E-02

Total Blood HI =

1E-02

Total General Toxicity HI =

N/A

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

3E-02

Total Cardiovascular HI =

N/A

Total Developmental HI =

N/A

TABLE 3-9.18.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	9E-08	--	9E-08	Skin	--	--	9E-04	9E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	9E-05	9E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	2E-07	--	2E-07		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					1E-02
Exposure Medium Total					2E-07					1E-02			
Medium Total					2E-07					1E-02			
Sediment	Sediment	Station AM	Antimony	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Arsenic	5E-06	--	2E-06	--	7E-06	Skin	1E-01	--	3E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	4E-03	6E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Lead	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	9E-03	--	--	9E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Nickel	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	5E-06	--	2E-06	--	7E-06		1E-01	--	4E-02	2E-01
			Radionuclide Total										
Exposure Point Total					7E-06					2E-01			
Exposure Medium Total					7E-06					2E-01			
Medium Total					7E-06					2E-01			
Receptor Total					8E-06					2E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 8E-06

Total Hazard Across All Media 2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 8E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 8E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 8E-06

Total Skin HI = 1E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 9E-05
 Total Kidney HI = 2E-02
 Total Blood HI = 6E-03
 Total General Toxicity HI = 5E-04
 Total Liver HI = 2E-03
 Total Gastrointestinal System HI = 4E-03
 Total Cardiovascular HI = 4E-04
 Total Developmental HI = NA

TABLE 3-9.18.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total						3E-08					5E-03		
Medium Total						3E-08					5E-03		
Sediment	Sediment	Station AM	Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Arsenic	9E-07	--	6E-07	--	2E-06	Skin	5E-02	--	3E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-04	--	4E-03	5E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	5E-05	--	--	5E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Lead	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Nickel	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Thallium	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Vanadium	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	9E-07	--	6E-07	--	2E-06		7E-02	--	4E-02	1E-01
			Radionuclide Total										
Exposure Point Total					2E-06					1E-01			
Exposure Medium Total						2E-06					1E-01		
Medium Total						2E-06					1E-01		
Receptor Total						2E-06					1E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 2E-06

Total Hazard Across All Media 1E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 2E-06

Total Skin HI = 8E-02
 Total Nervous System HI = 1E-02
 Total Immune System HI = 4E-05
 Total Kidney HI = 1E-02
 Total Blood HI = 3E-03
 Total General Toxicity HI = 3E-04
 Total Liver HI = 2E-03
 Total Gastrointestinal System HI = 1E-03
 Total Cardiovascular HI = 2E-04
 Total Developmental HI = N/A

TABLE 3-9.19.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient						
				Young Child + Adult					Young Child						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	9E-04	9E-04		
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	2E-03	2E-03	
			Lead						Nervous System						
			Manganese	--	--	N/A	--	N/A					5E-03	5E-03	
			Chemical Total	--	--	1E-07	--	1E-07		--	--	8E-03	8E-03		
			Radionuclide Total												
Exposure Point Total						1E-07						8E-03			
Exposure Medium Total						1E-07						8E-03			
Medium Total						1E-07						8E-03			
Sediment	Sediment	Station KF	Arsenic	7E-06	--	3E-06	--	1E-05	Skin	1E-01	--	4E-02	2E-01		
			Barium	N/A	--	--	--	N/A		Cardiovascular	8E-04	--	--	8E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney		1E-03	--	3E-03	5E-03	
			Chromium III	N/A	--	--	--	N/A		General Toxicity	8E-05	--	--	8E-05	
			Copper	N/A	--	--	--	N/A	Kidney		5E-03	--	--	5E-03	
			Lead							Nervous System					
			Manganese	N/A	--	--	--	N/A			7E-03	--	--	7E-03	
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02		
			Nickel	N/A	--	--	--	N/A		General Toxicity	6E-04	--	--	6E-04	
			Vanadium	N/A	--	--	--	N/A	Kidney		3E-02	--	--	3E-02	
			Zinc	N/A	--	--	--	N/A		Blood	2E-03	--	--	2E-03	
			Chemical Total	7E-06	--	3E-06	--	1E-05			2E-01	--	4E-02	2E-01	
			Radionuclide Total												
			Exposure Point Total						1E-05						2E-01
			Exposure Medium Total						1E-05						2E-01
Medium Total						1E-05						2E-01			
Soil	Surface Soil	Station KF	Arsenic	1E-05	--	2E-06	--	1E-05	Skin	2E-01	--	4E-02	3E-01		
			Cadmium	N/A	--	N/A	--	N/A		Kidney	2E-03	--	4E-03	7E-03	
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System		6E-02	--	--	6E-02	
			Copper	N/A	--	--	--	N/A		Kidney	5E-03	--	--	5E-03	
			Manganese	N/A	--	--	--	N/A	Nervous System		2E-02	--	--	2E-02	
			Mercury	N/A	--	--	--	N/A		Nervous System	1E-02	--	--	1E-02	
			Vanadium	N/A	--	--	--	N/A	Kidney		4E-02	--	--	4E-02	
			Zinc	N/A	--	--	--	N/A		Blood	2E-03	--	--	2E-03	
			Chemical Total	1E-05	--	2E-06	--	1E-05			4E-01	--	4E-02	4E-01	
			Radionuclide Total												
			Exposure Point Total						1E-05						4E-01
			Exposure Medium Total						1E-05						4E-01
			Medium Total						1E-05						4E-01
			Receptor Total						2E-05						6E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

6E-01

Total Skin HI = 4E-01
Total Nervous System HI = 5E-02
Total Immune System HI = N/A
Total Kidney HI = 1E-01
Total Blood HI = 4E-03
Total General Toxicity HI = 7E-04
Total Liver HI = N/A
Total Gastrointestinal System HI = 6E-02
Total Cardiovascular HI = 8E-04
Total Developmental HI = N/A

TABLE 3-9.19.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient						
				Young Child + Adult					Young Child						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	--	5E-09	--	5E-09	Skin	--	--	2E-04	2E-04		
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-04	4E-04	
			Lead	--	--	N/A	--	N/A			Nervous System	--	--	8E-04	8E-04
			Manganese	--	--	N/A	--	N/A							
			Chemical Total	--	--	5E-09	--	5E-09		--	--	1E-03	1E-03		
			Radionuclide Total												
		Exposure Point Total					5E-09					1E-03			
		Exposure Medium Total					5E-09					1E-03			
Medium Total							5E-09					1E-03			
Sediment	Sediment	Station KF	Arsenic	4E-07	--	3E-07	--	6E-07	Skin	2E-02	--	1E-02	3E-02		
			Barium	N/A	--	--	--	N/A		Cardiovascular	1E-04	--	--	1E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney		2E-04	--	1E-03	1E-03	
			Chromium III	N/A	--	--	--	N/A		General Toxicity	1E-05	--	--	1E-05	
			Copper	N/A	--	--	--	N/A	Kidney		9E-04	--	--	9E-04	
			Lead												
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03		
			Mercury	N/A	--	--	--	N/A		Nervous System	2E-03	--	--	2E-03	
			Nickel	N/A	--	--	--	N/A	General Toxicity		1E-04	--	--	1E-04	
			Vanadium	N/A	--	--	--	N/A		Kidney	5E-03	--	--	5E-03	
			Zinc	N/A	--	--	--	N/A	Blood		3E-04	--	--	3E-04	
			Chemical Total	4E-07	--	3E-07	--	6E-07			3E-02	--	1E-02	5E-02	
			Radionuclide Total												
					Exposure Point Total					6E-07					5E-02
					Exposure Medium Total					6E-07					5E-02
Medium Total							6E-07					5E-02			
Soil	Surface Soil	Station KF	Arsenic	6E-07	--	2E-07	--	9E-07	Skin	4E-02	--	1E-02	5E-02		
			Cadmium	N/A	--	N/A	--	N/A		Kidney	3E-04	--	1E-03	2E-03	
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System		9E-03	--	--	9E-03	
			Copper	N/A	--	--	--	N/A		Kidney	9E-04	--	--	9E-04	
			Manganese	N/A	--	--	--	N/A	Nervous System		3E-03	--	--	3E-03	
			Mercury	N/A	--	--	--	N/A		Nervous System	2E-03	--	--	2E-03	
			Vanadium	N/A	--	--	--	N/A	Kidney		7E-03	--	--	7E-03	
			Zinc	N/A	--	--	--	N/A		Blood	3E-04	--	--	3E-04	
			Chemical Total	6E-07	--	2E-07	--	9E-07			6E-02	--	1E-02	7E-02	
			Radionuclide Total												
					Exposure Point Total					9E-07					7E-02
					Exposure Medium Total					9E-07					7E-02
			Medium Total							9E-07					7E-02
			Receptor Total							2E-06					1E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

1E-01

Total Skin HI = 8E-02
 Total Nervous System HI = 9E-03
 Total Immune System HI = N/A
 Total Kidney HI = 2E-02
 Total Blood HI = 6E-04
 Total General Toxicity HI = 1E-04
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 1E-02
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = N/A

TABLE 3-9.20.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child							
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total			
Surface Water	Surface Water	Station 08 (Lower Reach 2)	Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	9E-04	9E-04			
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-03	2E-03			
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03			
			Manganese	--	--	N/A	--	N/A								
			Chemical Total	--	--	1E-07	--	1E-07		--	--	8E-03	8E-03			
			Radionuclide Total													
Exposure Point Total												1E-07	8E-03			
Exposure Medium Total												1E-07	8E-03			
Medium Total												1E-07	8E-03			
Sediment	Sediment	Station 08	Benzo(a)anthracene	9E-08	--	7E-08	--	2E-07	N/A	N/A	--	N/A	N/A			
			Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A			
			Benzo(b)fluoranthene	2E-07	--	2E-07	--	4E-07	N/A	N/A	--	N/A	N/A			
			Benzo(k)fluoranthene	3E-08	--	2E-08	--	5E-08	N/A	N/A	--	N/A	N/A			
			Dibenz(a,h)anthracene	2E-07	--	2E-07	--	4E-07	N/A	N/A	--	N/A	N/A			
			Indeno(1,2,3-cd)pyrene	9E-08	--	7E-08	--	2E-07	N/A	N/A	--	N/A	N/A			
			Antimony	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03			
			Arsenic	4E-06	--	1E-06	--	5E-06	Skin	7E-02	--	2E-02	9E-02			
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04			
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04			
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03			
			Lead													
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03			
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02			
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03			
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02			
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02			
			Zinc	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03			
			Chemical Total				6E-06	--	3E-06	--	9E-06		2E-01	--	2E-02	2E-01
			Radionuclide Total													
Exposure Point Total												9E-06	2E-01			
Exposure Medium Total												9E-06	2E-01			
Medium Total												9E-06	2E-01			
Receptor Total												9E-06	2E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

2E-01

Total Skin HI = 9E-02
 Total Nervous System HI = 2E-02
 Total Immune System HI = N/A
 Total Kidney HI = 3E-02
 Total Blood HI = 4E-02
 Total General Toxicity HI = 2E-03
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 2E-03
 Total Cardiovascular HI = 4E-04
 Total Developmental HI = N/A

TABLE 3-9.20.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 08 (Lower Reach 2)	Arsenic	--	--	5E-09	--	5E-09	Skin	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-04
			Lead	--	--	N/A	--	N/A	Nervous System		--	--	8E-04
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-09	--	5E-09		--	--	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total					5E-09					1E-03	
		Exposure Medium Total					5E-09					1E-03	
Medium Total							5E-09					1E-03	
Sediment	Sediment	Station 08	Benzo(a)anthracene	3E-09	--	5E-09	--	9E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	4E-08	--	7E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	9E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	9E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-09	--	4E-09	--	7E-09	N/A	N/A	--	N/A	N/A
			Antimony	N/A	--	--	--	N/A	Blood	6E-04	--	--	6E-04
			Arsenic	1E-07	--	1E-07	--	2E-07	Skin	8E-03	--	5E-03	1E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	6E-05	--	--	6E-05
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-06	--	--	9E-06
			Copper	N/A	--	--	--	N/A	Kidney	6E-04	--	--	6E-04
			Lead	N/A	--	--	--	N/A	Nervous System	5E-04	--	--	5E-04
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Thallium	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Zinc	N/A	--	--	--	N/A	Blood	3E-04	--	--	3E-04
			Chemical Total	2E-07	--	2E-07	--	4E-07		2E-02	--	5E-03	2E-02
			Radionuclide Total										
					Exposure Point Total				4E-07				
		Exposure Medium Total				4E-07					2E-02		
Medium Total						4E-07					2E-02		
Receptor Total						4E-07					3E-02		

-- = Not Evaluated
 NA = Not Applicable

Total Risk Across All Media

4E-07

Total Hazard Across All Media

3E-02

Total Skin HI = 1E-02
 Total Nervous System HI = 2E-03
 Total Immune System HI = NA
 Total Kidney HI = 4E-03
 Total Blood HI = 5E-03
 Total General Toxicity HI = 2E-04
 Total Liver HI = NA
 Total Gastrointestinal System HI = 4E-04
 Total Cardiovascular HI = 6E-05
 Total Developmental HI = NA

TABLE 3-9.21.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child							
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total			
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03			
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03			
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04			
			Mercury	--	--	N/A	--	N/A								
			Chemical Total	--	--	N/A	--	N/A					1E-02	1E-02		
			Radionuclide Total													
Exposure Point Total												1E-02				
Exposure Medium Total												1E-02				
Medium Total												1E-02				
Sediment	Sediment	Station 07/DP	Trichloroethene	2E-09	--	--	--	2E-09	Liver	1E-04	--	--	1E-04			
			Benzo(a)anthracene	7E-07	--	6E-07	--	1E-06	N/A	N/A	--	N/A	N/A			
			Benzo(a)pyrene	7E-06	--	6E-06	--	1E-05	N/A	N/A	--	N/A	N/A			
			Benzo(b)fluoranthene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A			
			Benzo(k)fluoranthene	1E-07	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A			
			Dibenz(a,h)anthracene	1E-06	--	1E-06	--	3E-06	N/A	N/A	--	N/A	N/A			
			Indeno(1,2,3-cd)pyrene	5E-07	--	4E-07	--	9E-07	N/A	N/A	--	N/A	N/A			
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	5E-04	--	4E-04	8E-04			
			Aroclor 1260	2E-08	--	2E-08	--	4E-08	Immune System	5E-03	--	4E-03	8E-03			
			Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03			
			Arsenic	1E-05	--	4E-06	--	1E-05	Skin	2E-01	--	6E-02	3E-01			
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03			
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	2E-02	3E-02			
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04			
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02			
			Lead	N/A	--	--	--	N/A								
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03			
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02			
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03			
			Thallium	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02			
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-02	--	--	7E-02			
			Zinc	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03			
			Chemical Total	2E-05	--	1E-05	--	3E-05		4E-01	--	8E-02	5E-01			
			Radionuclide Total													
			Exposure Point Total												5E-01	
			Exposure Medium Total												5E-01	
			Medium Total												5E-01	
			Soil	Surface Soil	Station 07/DP	Arsenic	1E-05	--	2E-06	--	1E-05	Skin	2E-01	--	4E-02	2E-01
						Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-04	--	6E-04	9E-04
						Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	7E-02	--	--	7E-02
Copper	N/A	--				--	--	N/A	Kidney	5E-03	--	--	5E-03			
Manganese	N/A	--				--	--	N/A	Nervous System	7E-03	--	--	7E-03			
Mercury	N/A	--				--	--	N/A	Nervous System	1E-02	--	--	1E-02			
Thallium	N/A	--				--	--	N/A	Blood	3E-02	--	--	3E-02			
Vanadium	N/A	--				--	--	N/A	Kidney	4E-02	--	--	4E-02			
Zinc	N/A	--				--	--	N/A	Blood	9E-02	--	--	9E-02			
Chemical Total	1E-05	--				2E-06	--	1E-05		5E-01	--	4E-02	5E-01			
Radionuclide Total																
Exposure Point Total															5E-01	
Exposure Medium Total															5E-01	
Medium Total															5E-01	
Receptor Total															1E+00	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 5E-05

Total Hazard Across All Media 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 5E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 5E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to 5E-05

Total Skin HI = 5E-01
Total Nervous System HI = 8E-02
Total Immune System HI = 9E-03
Total Kidney HI = 2E-01
Total Blood HI = 2E-01
Total General Toxicity HI = 3E-03
Total Liver HI = 1E-04
Total Gastrointestinal System HI = 7E-02
Total Cardiovascular HI = 2E-03
Total Developmental HI = N/A

TABLE 3-9.21.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient							
				Young Child + Adult					Young Child							
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total			
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-04	5E-04			
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03			
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	7E-05	7E-05			
			Mercury	--	--	N/A	--	N/A								
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03			
			Radionuclide Total													
			Exposure Point Total					N/A					2E-03			
Exposure Medium Total						N/A					2E-03					
Medium Total						N/A					2E-03					
Sediment	Sediment	Station 07/DP	Trichloroethene	8E-11	--	--	--	8E-11	Liver	2E-05	--	--	2E-05			
			Benzo(a)anthracene	4E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A			
			Benzo(a)pyrene	4E-07	--	6E-07	--	1E-06	N/A	N/A	--	N/A	N/A			
			Benzo(b)fluoranthene	6E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A			
			Benzo(k)fluoranthene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A			
			Dibenz(a,h)anthracene	7E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A			
			Indeno(1,2,3-cd)pyrene	3E-08	--	4E-08	--	7E-08	N/A	N/A	--	N/A	N/A			
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	8E-05	--	1E-04	2E-04			
			Aroclor 1260	6E-10	--	1E-09	--	2E-09	Immune System	8E-04	--	1E-03	2E-03			
			Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03			
			Arsenic	6E-07	--	4E-07	--	1E-06	Skin	3E-02	--	2E-02	5E-02			
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04			
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	5E-03	7E-03			
			Chromium III	N/A	--	--	--	N/A	General Toxicity	4E-05	--	--	4E-05			
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03			
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03			
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03			
			Mercury	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04			
			Nickel	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03			
			Thallium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02			
			Vanadium	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03			
			Zinc	N/A	--	--	--	N/A								
			Chemical Total	1E-06	--	1E-06	--	3E-06		7E-02	--	3E-02	9E-02			
			Radionuclide Total													
			Exposure Point Total						3E-06					9E-02		
			Exposure Medium Total						3E-06					9E-02		
			Medium Total						3E-06					9E-02		
			Soil	Surface Soil	Station 07/DP	Arsenic	6E-07	--	2E-07	--	9E-07	Skin	4E-02	--	1E-02	5E-02
						Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-05	--	2E-04	2E-04
						Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-02	--	--	1E-02
Copper	N/A	--				--	--	N/A	Kidney	8E-04	--	--	8E-04			
Manganese	N/A	--				--	--	N/A	Nervous System	1E-03	--	--	1E-03			
Mercury	N/A	--				--	--	N/A	Nervous System	2E-03	--	--	2E-03			
Thallium	N/A	--				--	--	N/A	Blood	6E-03	--	--	6E-03			
Vanadium	N/A	--				--	--	N/A	Kidney	7E-03	--	--	7E-03			
Zinc	N/A	--				--	--	N/A	Blood	2E-02	--	--	2E-02			
Chemical Total	6E-07	--				2E-07	--	9E-07		8E-02	--	1E-02	9E-02			
Radionuclide Total																
Exposure Point Total									9E-07					9E-02		
Exposure Medium Total									9E-07					9E-02		
Medium Total						9E-07					9E-02					
Receptor Total						3E-06					2E-01					

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-06

Using the CAPEA slope factor for TCE, the risk for this receptor would change to

3E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-06

Total Skin HI =

1E-01

Total Nervous System HI =

1E-02

Total Immune System HI =

2E-03

Total Kidney HI =

3E-02

Total Blood HI =

3E-02

Total General Toxicity HI =

6E-04

Total Liver HI =

2E-05

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

3E-04

Total Developmental HI =

N/A

TABLE 3-9.22.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	1E-02	1E-02
			Radionuclide Total										
Exposure Point Total												N/A	1E-02
Exposure Medium Total												N/A	1E-02
Medium Total												N/A	1E-02
Sediment	Sediment	Station LP	Antimony	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03
			Arsenic	2E-05	--	7E-06	--	3E-05	Skin	4E-01	--	1E-01	5E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	8E-04	--	--	8E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	9E-03	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	8E-05	--	--	8E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Thallium	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Zinc	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Chemical Total	2E-05	--	7E-06	--	3E-05		5E-01	--	1E-01	6E-01
			Radionuclide Total										
Exposure Point Total												3E-05	6E-01
Exposure Medium Total												3E-05	6E-01
Medium Total												3E-05	6E-01
Receptor Total												3E-05	6E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

6E-01

Total Skin HI =	5E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	7E-02
Total Blood HI =	5E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

TABLE 3-9.22.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-04	5E-04
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	7E-05	7E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03
			Radionuclide Total										
Exposure Point Total												2E-03	
Exposure Medium Total												2E-03	
Medium Total												2E-03	
Sediment	Sediment	Station LP	Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Arsenic	1E-06	--	8E-07	--	2E-06	Skin	6E-02	--	4E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-04	--	3E-03	4E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-05	--	--	1E-05
			Copper	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Thallium	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	1E-06	--	8E-07	--	2E-06		8E-02	--	4E-02	1E-01
			Radionuclide Total										
Exposure Point Total												1E-01	
Exposure Medium Total												1E-01	
Medium Total												1E-01	
Receptor Total												1E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

1E-01

Total Skin HI =	1E-01
Total Nervous System HI =	4E-03
Total Immune System HI =	7E-05
Total Kidney HI =	1E-02
Total Blood HI =	8E-03
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

TABLE 3-9.23.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	4E-03	4E-03
			Radionuclide Total										
Exposure Point Total												4E-03	
Exposure Medium Total												4E-03	
Medium Total												4E-03	
Sediment	Sediment	Station AS	Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	5E-06	--	2E-06	--	7E-06	Skin	1E-01	--	3E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	7E-04	--	--	7E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	6E-03	--	1E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04
			Thallium	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Zinc	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Chemical Total	5E-06	--	2E-06	--	7E-06		2E-01	--	5E-02	2E-01
			Radionuclide Total										
Exposure Point Total												2E-01	
Exposure Medium Total												2E-01	
Medium Total												2E-01	
Receptor Total												2E-01	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

7E-06

Total Hazard Across All Media

2E-01

Total Skin HI = 1E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 1E-04
 Total Kidney HI = 6E-02
 Total Blood HI = 1E-02
 Total General Toxicity HI = 1E-03
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 1E-03
 Total Cardiovascular HI = 7E-04
 Total Developmental HI = N/A

TABLE 3-9.23.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-04	5E-04
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	7E-05	7E-05
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03
			Radionuclide Total										
Exposure Point Total												2E-03	
Exposure Medium Total												2E-03	
Medium Total												2E-03	
Sediment	Sediment	Station AS	Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Arsenic	8E-07	--	6E-07	--	1E-06	Skin	5E-02	--	3E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	1E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chemical Total	8E-07	--	6E-07	--	1E-06		9E-02	--	4E-02	1E-01
			Radionuclide Total										
Exposure Point Total												1E-01	
Exposure Medium Total												1E-01	
Medium Total												1E-01	
Receptor Total												1E-01	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

1E-01

Total Skin HI = 8E-02
 Total Nervous System HI = 1E-02
 Total Immune System HI = 7E-05
 Total Kidney HI = 4E-02
 Total Blood HI = 6E-03
 Total General Toxicity HI = 6E-04
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 5E-04
 Total Cardiovascular HI = 3E-04
 Total Developmental HI = N/A

TABLE 3-9.24.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-03	5E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	7E-03	7E-03
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total					N/A					1E-02	
		Exposure Medium Total					N/A					1E-02	
		Medium Total					N/A					1E-02	
		Receptor Total					N/A					1E-02	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

N/A

Total Hazard Across All Media

1E-02

Total Skin HI =	N/A
Total Nervous System HI =	7E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.24.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Receptor Total								N/A					2E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

N/A

Total Hazard Across All Media

2E-03

Total Skin HI =	N/A
Total Nervous System HI =	1E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	8E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.25.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	--	N/A	--	N/A	Liver	--	--	5E-05	5E-05
			Tetrachloroethene	--	--	9E-07	--	9E-07	Liver	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	9E-04	9E-04
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	9E-07	--	9E-07		--	--	6E-03	6E-03
			Radionuclide Total										
Exposure Point Total												6E-03	
Exposure Medium Total												6E-03	
Medium Total												6E-03	
Sediment	Sediment	Station 05	Benzo(a)anthracene	3E-07	--	2E-07	--	5E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	3E-06	--	3E-06	--	6E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-c,d)pyrene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-04	--	1E-04	3E-04
			Antimony	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Arsenic	3E-06	--	1E-06	--	5E-06	Skin	6E-02	--	2E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	9E-04	--	--	9E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	5E-03	7E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Lead	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	8E-04	--	--	8E-04
			Nickel	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Thallium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	7E-06	--	5E-06	--	1E-05		2E-01	--	3E-02	2E-01
Radionuclide Total													
Exposure Point Total											2E-01		
Exposure Medium Total											2E-01		
Medium Total											2E-01		
Receptor Total											2E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

2E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to

1E-05

Total Skin HI =

8E-02

Total Nervous System HI =

4E-02

Total Immune System HI =

N/A

Total Kidney HI =

4E-02

Total Blood HI =

3E-02

Total General Toxicity HI =

1E-03

Total Liver HI =

7E-04

Total Gastrointestinal System HI =

9E-04

Total Cardiovascular HI =

9E-04

Total Developmental HI =

N/A

TABLE 3-9.25.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	--	N/A	--	N/A	Liver	--	--	1E-05	1E-05
			Tetrachloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-04	2E-04
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-04	8E-04
			Manganese	--	--	N/A	--	N/A		--	--	8E-04	8E-04
			Chemical Total	--	--	6E-08	--	6E-08		--	--	1E-03	1E-03
			Radionuclide Total										
Exposure Point Total					6E-08						1E-03		
Exposure Medium Total					6E-08						1E-03		
Medium Total					6E-08						1E-03		
Sediment	Sediment	Station 05	Benzo(a)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	2E-08	--	4E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-09	--	4E-09	--	6E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-10	--	3E-10	--	5E-10	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	8E-06	--	1E-05	2E-05
			Antimony	N/A	--	--	--	N/A	Blood	6E-04	--	--	6E-04
			Arsenic	6E-08	--	4E-08	--	1E-07	Skin	3E-03	--	2E-03	6E-03
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-05	--	2E-04	3E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	5E-06	--	--	5E-06
			Copper	N/A	--	--	--	N/A	Kidney	2E-04	--	--	2E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-04	--	--	2E-04
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Zinc	N/A	--	--	--	N/A	Blood	1E-04	--	--	1E-04
			Chemical Total	9E-08	--	9E-08	--	2E-07		1E-02	--	2E-03	1E-02
Radionuclide Total													
Exposure Point Total					2E-07						1E-02		
Exposure Medium Total					2E-07						1E-02		
Medium Total					2E-07						1E-02		
Receptor Total					2E-07						2E-02		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 2E-07

Total Hazard Across All Media 2E-02

Using the MADEP slope factor for PCE, the risk for this receptor would change to 2E-07

Total Skin HI = 6E-03
 Total Nervous System HI = 2E-03
 Total Immune System HI = N/A
 Total Kidney HI = 5E-03
 Total Blood HI = 2E-03
 Total General Toxicity HI = 1E-04
 Total Liver HI = 2E-04
 Total Gastrointestinal System HI = 2E-04
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = N/A

TABLE 3-9.26.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	--	7E-08	--	7E-08	Skin	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-03
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	5E-03
			Mercury	--	--	N/A	--	N/A			--	--	1E-04
			Chemical Total	--	--	7E-08	--	7E-08		--	--	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total					7E-08					9E-03	
	Exposure Medium Total						7E-08					9E-03	
Medium Total							7E-08					9E-03	
Receptor Total							7E-08					9E-03	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

7E-08

Total Hazard Across All Media

9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.26.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	--	3E-09	--	3E-09	Skin
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-04	3E-04
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	5E-04	5E-04
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	2E-05	2E-05
			Chemical Total	--	--	3E-09	--	3E-09		--	--	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					9E-04
	Exposure Medium Total							3E-09					9E-04
Medium Total								3E-09					9E-04
Receptor Total								3E-09					9E-04

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-09

Total Hazard Across All Media

9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.27.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	--	7E-08	--	7E-08	Skin	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	7E-08	--	7E-08		--	--	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total											
		Exposure Medium Total											
Medium Total													
Sediment	Sediment	Station 03	Benzo(a)anthracene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	8E-09	--	7E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	7E-05	--	5E-05	1E-04
			Aroclor 1260	4E-08	--	3E-08	--	7E-08	Immune System	8E-03	--	6E-03	1E-02
			Antimony	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Arsenic	1E-05	--	4E-06	--	2E-05	Skin	2E-01	--	7E-02	3E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	2E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	8E-03	--	--	8E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-02	--	--	7E-02
			Zinc	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03
			Chemical Total	1E-05	--	6E-06	--	2E-05			3E-01	--	9E-02
Radionuclide Total													
		Exposure Point Total											
		Exposure Medium Total											
Medium Total													
Receptor Total													

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

4E-01

Total Skin HI = 3E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 1E-02
 Total Kidney HI = 1E-01
 Total Blood HI = 1E-02
 Total General Toxicity HI = 2E-03
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 4E-03
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = N/A

TABLE 3-9.27.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	--	3E-09	--	3E-09	Skin	--	--	8E-05	8E-05	
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	3E-04	3E-04
			Lead	--	--	N/A	--	N/A	Nervous System		--	--	5E-04	5E-04
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	2E-05	2E-05
			Mercury	--	--	N/A	--	N/A						
			Chemical Total	--	--	3E-09	--	3E-09		--	--	9E-04	9E-04	
			Radionuclide Total											
			Exposure Point Total					3E-09						9E-04
			Exposure Medium Total					3E-09						9E-04
			Medium Total					3E-09						9E-04
Sediment	Sediment	Station 03	Benzo(a)anthracene	4E-09	--	6E-09	--	1E-08	N/A	N/A	--	N/A	N/A	
			Benzo(a)pyrene	3E-08	--	5E-08	--	8E-08	N/A	N/A	--	N/A	N/A	
			Benzo(b)fluoranthene	4E-09	--	7E-09	--	1E-08	N/A	N/A	--	N/A	N/A	
			Benzo(k)fluoranthene	2E-10	--	4E-10	--	6E-10	N/A	N/A	--	N/A	N/A	
			Dibenzo(a,h)anthracene	7E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A	
			Indeno(1,2,3-cd)pyrene	2E-09	--	4E-09	--	6E-09	N/A	N/A	--	N/A	N/A	
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	6E-06	--	8E-06	1E-05	
			Aroclor 1260	5E-10	--	8E-10	--	1E-09	Immune System	6E-04	--	9E-04	2E-03	
			Antimony	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04	
			Arsenic	2E-07	--	2E-07	--	4E-07	Skin	1E-02	--	9E-03	2E-02	
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-04	--	2E-03	2E-03	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-05	--	--	1E-05	
			Copper	N/A	--	--	--	N/A	Kidney	5E-04	--	--	5E-04	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04	
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-04	--	--	6E-04	
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04	
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03	
			Zinc	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04	
Chemical Total	3E-07	--	3E-07	--	5E-07		2E-02	--	1E-02	3E-02				
Radionuclide Total														
Exposure Point Total					5E-07						3E-02			
Exposure Medium Total					5E-07						3E-02			
Medium Total					5E-07						3E-02			
Receptor Total					5E-07						4E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

5E-07

Total Hazard Across All Media

4E-02

Total Skin HI = 2E-02
 Total Nervous System HI = 2E-03
 Total Immune System HI = 2E-03
 Total Kidney HI = 8E-03
 Total Blood HI = 9E-04
 Total General Toxicity HI = 2E-04
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 3E-04
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = N/A

TABLE 3-9.28.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	--	7E-08	--	7E-08	Skin	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-03
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	5E-03
			Mercury	--	--	N/A	--	N/A			--	--	1E-04
			Chemical Total	--	--	7E-08	--	7E-08		--	--	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total					7E-08					9E-03	
	Exposure Medium Total						7E-08					9E-03	
Medium Total							7E-08					9E-03	
Receptor Total							7E-08					9E-03	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

7E-08

Total Hazard Across All Media

9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.28.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	--	3E-09	--	3E-09	Skin	--	--	8E-05	8E-05
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	3E-04
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	5E-04
			Mercury	--	--	N/A	--	N/A			--	--	2E-05
			Chemical Total	--	--	3E-09	--	3E-09		--	--	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total										3E-09	9E-04
		Exposure Medium Total										3E-09	9E-04
Medium Total												3E-09	9E-04
Receptor Total												3E-09	9E-04

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-09

Total Hazard Across All Media

9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.29.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	3E-07	--	6E-08	--	3E-07	Skin	4E-03	--	5E-04	4E-03	
			Chromium VI	N/A	--	N/A	--	N/A	Gastrointestinal System	2E-04	--	2E-03	2E-03	
			Lead											
			Manganese	N/A	--	N/A	--	N/A	Nervous System	4E-04	--	1E-03	2E-03	
			Mercury	N/A	--	N/A	--	N/A	Immune System	5E-05	--	9E-05	1E-04	
			Chemical Total	3E-07	--	6E-08	--	3E-07		4E-03	--	4E-03	8E-03	
			Radionuclide Total											
			Exposure Point Total					3E-07						8E-03
			Exposure Medium Total					3E-07						8E-03
			Medium Total					3E-07						8E-03
Sediment	Sediment	Station 01	Benzo(a)anthracene	3E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A	
			Benzo(a)pyrene	3E-07	--	2E-07	--	5E-07	N/A	N/A	--	N/A	N/A	
			Benzo(b)fluoranthene	2E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A	
			Benzo(k)fluoranthene	3E-09	--	2E-09	--	5E-09	N/A	N/A	--	N/A	N/A	
			Indeno(1,2,3-cd)pyrene	2E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A	
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	3E-05	--	2E-05	6E-05	
			Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03	
			Arsenic	8E-07	--	3E-07	--	1E-06	Skin	1E-02	--	5E-03	2E-02	
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-04	--	5E-04	8E-04	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-06	--	--	9E-06	
			Copper	N/A	--	--	--	N/A	Kidney	8E-04	--	--	8E-04	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03	
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04	
			Thallium	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03	
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02	
			Zinc	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04	
			Chemical Total	1E-06	--	6E-07	--	2E-06		5E-02	--	5E-03	5E-02	
			Radionuclide Total											
Exposure Point Total					2E-06						5E-02			
Exposure Medium Total					2E-06						5E-02			
Medium Total					2E-06						5E-02			
Receptor Total					2E-06						6E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

6E-02

Total Skin HI =	2E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	1E-04
Total Kidney HI =	2E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

TABLE 3-9.29.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	5E-09	--	1E-09	--	7E-09	Skin	2E-04	--	3E-05	3E-04
			Chromium VI	N/A	--	N/A	--	N/A		Gastrointestinal System	1E-05	--	1E-04
			Lead	N/A	--	N/A	--	N/A	Nervous System		2E-05	--	8E-05
			Manganese	N/A	--	N/A	--	N/A		Immune System	3E-06	--	6E-06
			Mercury	N/A	--	N/A	--	N/A					
			Chemical Total	5E-09	--	1E-09	--	7E-09		3E-04	--	2E-04	5E-04
			Radionuclide Total										
			Exposure Point Total					7E-09					5E-04
			Exposure Medium Total					7E-09					5E-04
			Medium Total					7E-09					5E-04
Sediment	Sediment	Station 01	Benzo(a)anthracene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	1E-10	--	2E-10	--	3E-10	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	6E-06	--	8E-06	1E-05
			Antimony	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Arsenic	4E-08	--	3E-08	--	8E-08	Skin	2E-03	--	2E-03	4E-03
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-05	--	--	4E-05
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-05	--	2E-04	2E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-06	--	--	1E-06
			Copper	N/A	--	--	--	N/A	Kidney	9E-05	--	--	9E-05
			Lead	N/A	--	--	--	N/A	Nervous System	3E-04	--	--	3E-04
			Manganese	N/A	--	--	--	N/A	General Toxicity	8E-05	--	--	8E-05
			Nickel	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Thallium	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Blood	8E-05	--	--	8E-05
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	6E-08	--	6E-08	--	1E-07		7E-03	--	2E-03	9E-03
			Radionuclide Total										
Exposure Point Total					1E-07					9E-03			
Exposure Medium Total					1E-07					9E-03			
Medium Total					1E-07					9E-03			
Receptor Total					1E-07					1E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-07

Total Hazard Across All Media

1E-02

Total Skin HI = 4E-03
 Total Nervous System HI = 4E-04
 Total Immune System HI = 9E-06
 Total Kidney HI = 3E-03
 Total Blood HI = 2E-03
 Total General Toxicity HI = 9E-05
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 1E-04
 Total Cardiovascular HI = 4E-05
 Total Developmental HI = N/A

TABLE 3-9.30.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 3	4,4'-DDD	7E-08	--	--	--	7E-08	Immune System
			4,4'-DDE	2E-07	--	--	--	2E-07	Developmental	6E-03	--	--	6E-03
			4,4'-DDT	4E-08	--	--	--	4E-08	Liver	6E-04	--	--	6E-04
			Aldrin	2E-07	--	--	--	2E-07	Liver	1E-03	--	--	1E-03
			alpha-Chlordane	8E-08	--	--	--	8E-08	Liver	1E-03	--	--	1E-03
			Aroclor-1254	2E-06	--	--	--	2E-06	Immune System	1E-01	--	--	1E-01
			Aroclor-1260	5E-06	--	--	--	5E-06	Immune System	3E-01	--	--	3E-01
			delta-BHC	N/A	--	--	--	N/A	Liver/Kidney	2E-04	--	--	2E-04
			Dieldrin	1E-06	--	--	--	1E-06	Liver	5E-03	--	--	5E-03
			Heptachlor epoxide	3E-07	--	--	--	3E-07	Liver	7E-03	--	--	7E-03
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-01	--	--	4E-01
			Selenium	N/A	--	--	--	N/A	Liver	1E-02	--	--	1E-02
			Chemical Total	9E-06	--	--	--	9E-06		9E-01	--	--	9E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					9E-01
	Exposure Medium Total							9E-06					9E-01
Medium Total								9E-06					9E-01
Receptor Total								9E-06					9E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

9E-01

Total Skin HI =	N/A
Total Nervous System HI =	4E-01
Total Immune System HI =	4E-01
Total Kidney HI =	2E-04
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	6E-03

TABLE 3-9.30.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 3	4,4'-DDD	8E-09	--	--	--	8E-09	Immune System
			4,4'-DDE	3E-08	--	--	--	3E-08	Developmental	2E-03	--	--	2E-03
			4,4'-DDT	5E-09	--	--	--	5E-09	Liver	2E-04	--	--	2E-04
			Aldrin	3E-08	--	--	--	3E-08	Liver	4E-04	--	--	4E-04
			alpha-Chlordane	1E-08	--	--	--	1E-08	Liver	5E-04	--	--	5E-04
			Aroclor-1254	1E-07	--	--	--	1E-07	Immune System	4E-02	--	--	4E-02
			Aroclor-1260	3E-07	--	--	--	3E-07	Immune System	1E-01	--	--	1E-01
			delta-BHC	N/A	--	--	--	N/A	Liver/Kidney	7E-05	--	--	7E-05
			Dieldrin	2E-07	--	--	--	2E-07	Liver	2E-03	--	--	2E-03
			Heptachlor epoxide	4E-08	--	--	--	4E-08	Liver	3E-03	--	--	3E-03
			Antimony	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-01	--	--	1E-01
			Selenium	N/A	--	--	--	N/A	Liver	5E-03	--	--	5E-03
			Chemical Total	7E-07	--	--	--	7E-07		3E-01	--	--	3E-01
			Radionuclide Total										
		Exposure Point Total						7E-07					3E-01
	Exposure Medium Total							7E-07					3E-01
Medium Total								7E-07					3E-01
Receptor Total								7E-07					3E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-07

Total Hazard Across All Media

3E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	2E-01
Total Kidney HI =	7E-05
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	1E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-03

TABLE 3-9.31.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reaches 4 and 5	4,4'-DDD	2E-07	--	--	--	2E-07	Immune System
			4,4'-DDE	1E-06	--	--	--	1E-06	Developmental	3E-02	--	--	3E-02
			4,4'-DDT	1E-07	--	--	--	1E-07	Liver	2E-03	--	--	2E-03
			Aldrin	4E-07	--	--	--	4E-07	Liver	2E-03	--	--	2E-03
			alpha-Chlordane	4E-08	--	--	--	4E-08	Liver	5E-04	--	--	5E-04
			Aroclor-1254	7E-06	--	--	--	7E-06	Immune System	4E-01	--	--	4E-01
			Aroclor-1260	2E-05	--	--	--	2E-05	Immune System	1E+00	--	--	1E+00
			Dieldrin	1E-06	--	--	--	1E-06	Liver	3E-03	--	--	3E-03
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-01	--	--	3E-01
			Selenium	N/A	--	--	--	N/A	Liver	1E-02	--	--	1E-02
			Chemical Total	3E-05	--	--	--	3E-05		2E+00	--	--	2E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					2E+00
	Exposure Medium Total							3E-05					2E+00
Medium Total								3E-05					2E+00
Receptor Total								3E-05					2E+00

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

2E+00

Total Skin HI =	N/A
Total Nervous System HI =	3E-01
Total Immune System HI =	1E+00
Total Kidney HI =	N/A
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	2E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	3E-02

TABLE 3-9.31.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
 Receptor Population: Recreational User
 Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reaches 4 and 5	4,4'-DDD	2E-08	--	--	--	2E-08	Immune System
			4,4'-DDE	1E-07	--	--	--	1E-07	Developmental	1E-02	--	--	1E-02
			4,4'-DDT	1E-08	--	--	--	1E-08	Liver	7E-04	--	--	7E-04
			Aldrin	4E-08	--	--	--	4E-08	Liver	7E-04	--	--	7E-04
			alpha-Chlordane	4E-09	--	--	--	4E-09	Liver	2E-04	--	--	2E-04
			Aroclor-1254	4E-07	--	--	--	4E-07	Immune System	2E-01	--	--	2E-01
			Aroclor-1260	9E-07	--	--	--	9E-07	Immune System	4E-01	--	--	4E-01
			Dieldrin	1E-07	--	--	--	1E-07	Liver	1E-03	--	--	1E-03
			Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-01	--	--	1E-01
			Selenium	N/A	--	--	--	N/A	Liver	5E-03	--	--	5E-03
			Chemical Total	2E-06	--	--	--	2E-06		7E-01	--	--	7E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					7E-01
	Exposure Medium Total							2E-06					7E-01
Medium Total								2E-06					7E-01
Receptor Total								2E-06					7E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

7E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	6E-01
Total Kidney HI =	N/A
Total Blood HI =	8E-03
Total General Toxicity HI =	N/A
Total Liver HI =	8E-03
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	1E-02

TABLE 3-9.32.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 6	4,4'-DDD	2E-07	--	--	--	2E-07	Immune System
			4,4'-DDE	8E-07	--	--	--	8E-07	Developmental	2E-02	--	--	2E-02
			4,4'-DDT	7E-08	--	--	--	7E-08	Liver	1E-03	--	--	1E-03
			Aldrin	4E-07	--	--	--	4E-07	Liver	2E-03	--	--	2E-03
			alpha-Chlordane	1E-07	--	--	--	1E-07	Liver	2E-03	--	--	2E-03
			Aroclor-1248	6E-07	--	--	--	6E-07	Immune System	4E-02	--	--	4E-02
			Aroclor-1254	1E-05	--	--	--	1E-05	Immune System	7E-01	--	--	7E-01
			Aroclor-1260	6E-06	--	--	--	6E-06	Immune System	4E-01	--	--	4E-01
			Dieldrin	2E-06	--	--	--	2E-06	Liver	5E-03	--	--	5E-03
			Heptachlor epoxide	2E-07	--	--	--	2E-07	Liver	4E-03	--	--	4E-03
			Arsenic	1E-05	--	--	--	1E-05	Skin	5E-02	--	--	5E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-01	--	--	2E-01
			Selenium	N/A	--	--	--	N/A	Liver	1E-02	--	--	1E-02
			Chemical Total	3E-05	--	--	--	3E-05		1E+00	--	--	1E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					1E+00
	Exposure Medium Total							3E-05					1E+00
Medium Total								3E-05					1E+00
Receptor Total								3E-05					1E+00

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

1E+00

Total Skin HI =	5E-02
Total Nervous System HI =	2E-01
Total Immune System HI =	1E+00
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-02

TABLE 3-9.32.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 6	4,4'-DDD	2E-08	--	--	--	2E-08	Immune System
			4,4'-DDE	9E-08	--	--	--	9E-08	Developmental	8E-03	--	--	8E-03
			4,4'-DDT	8E-09	--	--	--	8E-09	Liver	4E-04	--	--	4E-04
			Aldrin	4E-08	--	--	--	4E-08	Liver	7E-04	--	--	7E-04
			alpha-Chlordane	1E-08	--	--	--	1E-08	Liver	7E-04	--	--	7E-04
			Aroclor-1248	4E-08	--	--	--	4E-08	Immune System	2E-02	--	--	2E-02
			Aroclor-1254	6E-07	--	--	--	6E-07	Immune System	3E-01	--	--	3E-01
			Aroclor-1260	4E-07	--	--	--	4E-07	Immune System	2E-01	--	--	2E-01
			Dieldrin	2E-07	--	--	--	2E-07	Liver	2E-03	--	--	2E-03
			Heptachlor epoxide	2E-08	--	--	--	2E-08	Liver	2E-03	--	--	2E-03
			Arsenic	1E-06	--	--	--	1E-06	Skin	2E-02	--	--	2E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-02	--	--	6E-02
			Selenium	N/A	--	--	--	N/A	Liver	5E-03	--	--	5E-03
			Chemical Total	2E-06	--	--	--	2E-06		5E-01	--	--	5E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					5E-01
	Exposure Medium Total							2E-06					5E-01
Medium Total								2E-06					5E-01
Receptor Total								2E-06					5E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

5E-01

Total Skin HI = 2E-02
Total Nervous System HI = 6E-02
Total Immune System HI = 4E-01
Total Kidney HI = N/A
Total Blood HI = N/A
Total General Toxicity HI = N/A
Total Liver HI = 1E-02
Total Gastrointestinal System HI = N/A
Total Cardiovascular HI = N/A
Total Developmental HI = 8E-03

TABLE 3-9.33.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	--	7E-09	--	7E-09	Liver	--	--	3E-04	3E-04
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	3E-03	3E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-02	4E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	6E-03	6E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	8E-04	8E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	4E-07	--	4E-07		--	--	6E-02	6E-02
			Radionuclide Total										
			Exposure Point Total					4E-07					6E-02
Exposure Medium Total					4E-07					6E-02			
Medium Total					4E-07					6E-02			
Sediment	Sediment	Station NR	Arsenic	2E-05	--	7E-06	--	3E-05	Skin	3E-01	--	1E-01	5E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	8E-04	--	--	8E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	5E-03	7E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead	--	--	--	--	--					
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	7E-04	--	--	7E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chemical Total	2E-05	--	7E-06	--	3E-05		4E-01	--	1E-01	6E-01
			Radionuclide Total										
			Exposure Point Total					3E-05					6E-01
			Exposure Medium Total					3E-05					6E-01
Medium Total					3E-05					6E-01			
Soil	Surface Soil	Station NR	Arsenic	3E-05	--	7E-06	--	4E-05	Skin	6E-01	--	1E-01	7E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	5E-03	7E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	5E-02	--	--	5E-02
			Copper	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chemical Total	3E-05	--	7E-06	--	4E-05		8E-01	--	1E-01	9E-01
			Radionuclide Total										
Exposure Point Total					4E-05					9E-01			
Exposure Medium Total					4E-05					9E-01			
Medium Total					4E-05					9E-01			
Receptor Total					7E-05					1E+00			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-05

Total Hazard Across All Media

1E+00

Total Skin HI = 1E+00
Total Nervous System HI = 8E-02
Total Immune System HI = 8E-04
Total Kidney HI = 8E-02
Total Blood HI = 3E-03
Total General Toxicity HI = 8E-04
Total Liver HI = 3E-04
Total Gastrointestinal System HI = 1E-01
Total Cardiovascular HI = 8E-04
Total Developmental HI = NA

TABLE 3-9.33.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NR (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					1E-02
Exposure Medium Total						3E-08					1E-02		
Medium Total						3E-08					1E-02		
Sediment	Sediment	Station NR	Arsenic	2E-06	--	1E-06	--	3E-06	Skin	9E-02	--	6E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-04	--	2E-03	3E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	4E-05	--	--	4E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-04	--	--	8E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
			Zinc	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04
			Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	6E-02	2E-01
			Radionuclide Total										
			Exposure Point Total					3E-06					2E-01
Exposure Medium Total						3E-06					2E-01		
Medium Total						3E-06					2E-01		
Soil	Surface Soil	Station NR	Arsenic	3E-06	--	1E-06	--	4E-06	Skin	2E-01	--	5E-02	2E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-04	--	2E-03	3E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-02	--	--	1E-02
			Copper	N/A	--	--	--	N/A	Kidney	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Zinc	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04
			Chemical Total	3E-06	--	1E-06	--	4E-06		2E-01	--	6E-02	2E-01
			Radionuclide Total										
Exposure Point Total					4E-06					2E-01			
Exposure Medium Total						4E-06					2E-01		
Medium Total						4E-06					2E-01		
Receptor Total						7E-06					4E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-06

Total Hazard Across All Media

4E-01

Total Skin HI = 4E-01
Total Nervous System HI = 2E-02
Total Immune System HI = 2E-04
Total Kidney HI = 2E-02
Total Blood HI = 8E-04
Total General Toxicity HI = 2E-04
Total Liver HI = 9E-05
Total Gastrointestinal System HI = 2E-02
Total Cardiovascular HI = 2E-04
Total Developmental HI = N/A

TABLE 3-9.34.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	--	7E-09	--	7E-09	Liver	--	--	3E-04	3E-04
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	3E-03	3E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-02	4E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	6E-03	6E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	8E-04	8E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	4E-07	--	4E-07		--	--	6E-02	6E-02
			Radionuclide Total										
			Exposure Point Total					4E-07					6E-02
Exposure Medium Total					4E-07					6E-02			
Medium Total					4E-07					6E-02			
Sediment	Sediment	Station 14	Benzo(a)anthracene	9E-08	--	8E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	8E-07	--	6E-07	--	1E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	9E-09	--	8E-09	--	2E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	1E-04	--	9E-05	2E-04
			Antimony	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Arsenic	7E-06	--	2E-06	--	9E-06	Skin	1E-01	--	4E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-04	--	2E-03	3E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04
			Thallium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A	Blood	9E-04	--	--	9E-04
			Chemical Total	8E-06	--	3E-06	--	1E-05		2E-01	--	4E-02	2E-01
			Radionuclide Total										
Exposure Point Total					1E-05					2E-01			
Exposure Medium Total					1E-05					2E-01			
Medium Total					1E-05					2E-01			
Receptor Total					1E-05					3E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

3E-01

Total Skin HI = 2E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 8E-04
 Total Kidney HI = 2E-02
 Total Blood HI = 1E-02
 Total General Toxicity HI = 8E-04
 Total Liver HI = 3E-04
 Total Gastrointestinal System HI = 4E-02
 Total Cardiovascular HI = 2E-04
 Total Developmental HI = N/A

TABLE 3-9.34.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 14 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					1E-02
Exposure Medium Total					3E-08					1E-02			
Medium Total					3E-08					1E-02			
Sediment	Sediment	Station 14	Benzo(a)anthracene	7E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	6E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	7E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-05	--	3E-05	4E-05
			Antimony	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Arsenic	4E-07	--	3E-07	--	8E-07	Skin	2E-02	--	2E-02	4E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-05	--	--	5E-05
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-04	--	7E-04	8E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-05	--	--	2E-05
			Copper	N/A	--	--	--	N/A	Kidney	5E-04	--	--	5E-04
			Lead	N/A	--	--	--	N/A	Nervous System	4E-04	--	--	4E-04
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	9E-05	--	--	9E-05
			Nickel	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Zinc	N/A	--	--	--	N/A	Blood	2E-04	--	--	2E-04
Chemical Total	5E-07	--	4E-07	--	1E-06		3E-02	--	2E-02	5E-02			
Radionuclide Total													
Exposure Point Total					1E-06					5E-02			
Exposure Medium Total					1E-06					5E-02			
Medium Total					1E-06					5E-02			
Receptor Total					1E-06					6E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

6E-02

Total Skin HI = 4E-02
 Total Nervous System HI = 3E-03
 Total Immune System HI = 2E-04
 Total Kidney HI = 4E-03
 Total Blood HI = 2E-03
 Total General Toxicity HI = 1E-04
 Total Liver HI = 9E-05
 Total Gastrointestinal System HI = 1E-02
 Total Cardiovascular HI = 5E-05
 Total Developmental HI = N/A

TABLE 3-9.35.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver	--	--	4E-04	4E-04
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					
Exposure Medium Total					7E-07						8E-02		
Medium Total					7E-07						8E-02		
Sediment	Sediment	Station 22/TT-22	Tetrachloroethene	3E-07	--	--	--	3E-07	Liver	4E-04	--	--	4E-04
			Trichloroethene	5E-08	--	--	--	5E-08	Liver	3E-03	--	--	3E-03
			Benzo(a)anthracene	4E-08	--	3E-08	--	7E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	3E-07	--	2E-07	--	5E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	6E-08	--	5E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	7E-09	--	6E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	6E-08	--	5E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	--	2E-08	--	5E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	3E-05	--	3E-05	6E-05
			Aroclor 1260	1E-08	--	9E-09	--	2E-08	Immune System	2E-03	--	2E-03	4E-03
			Antimony	N/A	--	--	--	N/A	Blood	1E+00	--	--	1E+00
			Arsenic	1E-05	--	4E-06	--	1E-05	Skin	2E-01	--	6E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-03	--	--	1E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	5E-03	7E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	6E-05	--	--	6E-05
			Copper	N/A	--	--	--	N/A	Kidney	1E-03	--	--	1E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	8E-04	--	--	8E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Zinc	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Chemical Total	1E-05	--	4E-06	--	2E-05		1E+00	--	7E-02	2E+00
Radionuclide Total													
Exposure Point Total					2E-05						2E+00		
Exposure Medium Total					2E-05						2E+00		
Medium Total					2E-05						2E+00		
Receptor Total					2E-05						2E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

2E+00

Using the MADEP slope factor for PCE, the risk for this receptor would change to

2E-05

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

2E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

2E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

2E-05

Total Skin HI =

3E-01

Total Nervous System HI =

2E-02

Total Immune System HI =

5E-03

Total Kidney HI =

7E-02

Total Blood HI =

1E+00

Total General Toxicity HI =

9E-04

Total Liver HI =

4E-03

Total Gastrointestinal System HI =

6E-02

Total Cardiovascular HI =

1E-03

Total Developmental HI =

N/A

TABLE 3-9.35.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 22/TT-22 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total					3E-08						1E-02		
Medium Total					3E-08						1E-02		
Sediment	Sediment	Station 22/TT-22	Tetrachloroethene	1E-08	--	--	--	1E-08	Liver	7E-05	--	--	7E-05
			Trichloroethene	3E-09	--	--	--	3E-09	Liver	6E-04	--	--	6E-04
			Benzo(a)anthracene	2E-09	--	3E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	3E-09	--	4E-09	--	7E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	3E-10	--	5E-10	--	8E-10	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	--	2E-09	--	4E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	5E-06	--	7E-06	1E-05
			Aroclor 1260	3E-10	--	5E-10	--	7E-10	Immune System	3E-04	--	5E-04	9E-04
			Antimony	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Arsenic	6E-07	--	4E-07	--	1E-06	Skin	3E-02	--	2E-02	5E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-04	--	2E-03	2E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-05	--	--	1E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-04	--	--	2E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-04	--	--	4E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A	Blood	8E-05	--	--	8E-05
			Chemical Total	6E-07	--	4E-07	--	1E-06		9E-02	--	2E-02	1E-01
Radionuclide Total													
Exposure Point Total					1E-06						1E-01		
Exposure Medium Total					1E-06						1E-01		
Medium Total					1E-06						1E-01		
Receptor Total					1E-06						1E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

1E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to

1E-06

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

1E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

1E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

1E-06

Total Skin HI =

5E-02

Total Nervous System HI =

3E-03

Total Immune System HI =

1E-03

Total Kidney HI =

1E-02

Total Blood HI =

4E-02

Total General Toxicity HI =

2E-04

Total Liver HI =

7E-04

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

2E-04

Total Developmental HI =

N/A

TABLE 3-9.36.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 13/TT-27 (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver	--	--	4E-04	4E-04
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					
Exposure Medium Total					7E-07						8E-02		
Medium Total					7E-07						8E-02		
Sediment	Sediment	Station 13/TT-27	Trichloroethene	3E-09	--	--	--	3E-09	Liver	2E-04	--	--	2E-04
			Benzo(a)anthracene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	2E-06	--	1E-06	--	3E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	3E-07	--	3E-07	--	6E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	3E-08	--	2E-08	--	5E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-07	--	9E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	1E-04	--	9E-05	2E-04
			Aroclor 1254	2E-08	--	N/A	--	2E-08	Immune System	3E-03	--	3E-03	6E-03
			Aroclor 1260	1E-07	--	1E-07	--	2E-07	Immune System	2E-02	--	2E-02	4E-02
			Antimony	N/A	--	--	--	N/A	Blood	2E-01	--	--	2E-01
			Arsenic	5E-04	--	2E-04	--	7E-04	Skin	9E+00	--	3E+00	1E+01
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-03	--	--	5E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	3E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04
			Copper	N/A	--	--	--	N/A	Kidney	8E-02	--	--	8E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-01	--	--	3E-01
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
Thallium	N/A	--	--	--	N/A	Blood	7E-02	--	--	7E-02			
Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01			
Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02			
Chemical Total	5E-04	--	2E-04	--	7E-04		1E+01	--	3E+00	1E+01			
Radionuclide Total													
Exposure Point Total					7E-04						1E+01		
Exposure Medium Total					7E-04						1E+01		
Medium Total					7E-04						1E+01		
Receptor Total					7E-04						1E+01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 7E-04

Total Hazard Across All Media 1E+01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 7E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 7E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to 7E-04

Total Skin HI = 1E+01
Total Nervous System HI = 3E-01
Total Immune System HI = 5E-02
Total Kidney HI = 2E-01
Total Blood HI = 3E-01
Total General Toxicity HI = 3E-03
Total Liver HI = 6E-04
Total Gastrointestinal System HI = 6E-02
Total Cardiovascular HI = 5E-03
Total Developmental HI = N/A

TABLE 3-9.36.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station 13/TT-27 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					1E-02
			Exposure Medium Total					3E-08					1E-02
Medium Total								3E-08					1E-02
Sediment	Sediment	Station 13/TT-27	Trichloroethene	8E-11	--	--	--	8E-11	Liver	2E-05	--	--	2E-05
			Benzo(a)anthracene	9E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	9E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-08	--	3E-08	--	5E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-09	--	2E-09	--	4E-09	N/A	N/A	--	N/A	N/A
			Dbenz(a,h)anthracene	2E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-05	--	3E-05	5E-05
			Aroclor 1254	1E-10	--	3E-10	--	4E-10	Immune System	2E-04	--	3E-04	5E-04
			Aroclor 1260	2E-09	--	3E-09	--	4E-09	Immune System	2E-03	--	3E-03	5E-03
			Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Arsenic	3E-05	--	2E-05	--	5E-05	Skin	1E+00	--	1E+00	2E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	8E-04	--	--	8E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	1E-02	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-05	--	--	9E-05
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chemical Total	3E-05	--	2E-05	--	5E-05		2E+00	--	1E+00	3E+00
			Radionuclide Total										
			Exposure Point Total					5E-05					3E+00
			Exposure Medium Total					5E-05					3E+00
Medium Total								5E-05					3E+00
Receptor Total								5E-05					3E+00

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media **5E-05**

Total Hazard Across All Media **3E+00**

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to **5E-05**
Using the CalEPA slope factor for TCE, the risk for this receptor would change to **5E-05**
Using the MADEP slope factor for TCE, the risk for this receptor would change to **5E-05**

Total Skin HI = **2E+00**
Total Nervous System HI = **2E-02**
Total Immune System HI = **6E-03**
Total Kidney HI = **5E-02**
Total Blood HI = **1E-02**
Total General Toxicity HI = **5E-04**
Total Liver HI = **1E-04**
Total Gastrointestinal System HI = **1E-02**
Total Cardiovascular HI = **8E-04**
Total Developmental HI = **N/A**

TABLE 3-9.37.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver	--	--	4E-04	4E-04
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					8E-02
Exposure Medium Total						7E-07					8E-02		
Medium Total						7E-07					8E-02		
Sediment	Sediment	Station WH	Trichloroethene	4E-09	--	--	--	4E-09	Liver	3E-04	--	--	3E-04
			Benzo(a)anthracene	7E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-07	--	2E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	9E-09	--	8E-09	--	2E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	--	8E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-05	--	3E-05	7E-05
			Aroclor 1260	2E-08	--	2E-08	--	4E-08	Immune System	4E-03	--	3E-03	7E-03
			Antimony	N/A	--	--	--	N/A	Blood	1E-01	--	--	1E-01
			Arsenic	3E-04	--	9E-05	--	4E-04	Skin	5E+00	--	2E+00	6E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	3E-02	5E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Copper	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-01	--	--	4E-01
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	7E-04	--	--	7E-04
			Chemical Total	3E-04	--	1E-04	--	4E-04		5E+00	--	2E+00	7E+00
			Radionuclide Total										
			Exposure Point Total					4E-04					7E+00
			Exposure Medium Total					4E-04					7E+00
Medium Total					4E-04					7E+00			
Receptor Total					4E-04					7E+00			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-04

Total Hazard Across All Media

7E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

4E-04

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

4E-04

Using the MADEP slope factor for TCE, the risk for this receptor would change to

4E-04

Total Skin HI =

6E+00

Total Nervous System HI =

4E-01

Total Immune System HI =

9E-03

Total Kidney HI =

2E-01

Total Blood HI =

1E-01

Total General Toxicity HI =

4E-03

Total Liver HI =

7E-04

Total Gastrointestinal System HI =

6E-02

Total Cardiovascular HI =

2E-03

Total Developmental HI =

NA

TABLE 3-9.37.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Surface Water	Surface Water	Station WH (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05		
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03		
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04		
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02		
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03		
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04		
			Mercury	--	--	N/A	--	N/A							
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02		
			Radionuclide Total												
			Exposure Point Total					3E-08						1E-02	
Exposure Medium Total						3E-08						1E-02			
Medium Total						3E-08						1E-02			
Sediment	Sediment	Station WH	Trichloroethene	2E-10	--	--	--	2E-10	Liver	4E-05	--	--	4E-05		
			Benzo(a)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A		
			Benzo(a)pyrene	7E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A		
			Benzo(b)fluoranthene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A		
			Benzo(k)fluoranthene	5E-10	--	8E-10	--	1E-09	N/A	N/A	--	N/A	N/A		
			Dibenz(h)anthracene	2E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A		
			Indeno(1,2,3-cd)pyrene	4E-09	--	6E-09	--	9E-09	N/A	N/A	--	N/A	N/A		
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	5E-06	--	8E-06	1E-05		
			Aroclor 1260	4E-10	--	7E-10	--	1E-09	Immune System	5E-04	--	8E-04	1E-03		
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02		
			Arsenic	1E-05	--	1E-05	--	2E-05	Skin	8E-01	--	5E-01	1E+00		
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04		
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	1E-02	1E-02		
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04		
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03		
			Lead	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03		
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-02	--	--	7E-02		
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04		
			Thallium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03		
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02		
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03		
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-04	--	--	1E-04		
			Chemical Total	1E-05	--	1E-05	--	2E-05		9E-01	--	5E-01	1E+00		
			Radionuclide Total												
			Exposure Point Total					2E-05						1E+00	
			Exposure Medium Total						2E-05						1E+00
			Medium Total						2E-05						1E+00
Receptor Total						2E-05						1E+00			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 2E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 2E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to 2E-05

Total Skin HI = 1E+00
Total Nervous System HI = 7E-02
Total Immune System HI = 1E-03
Total Kidney HI = 5E-02
Total Blood HI = 2E-02
Total General Toxicity HI = 7E-04
Total Liver HI = 1E-04
Total Gastrointestinal System HI = 1E-02
Total Cardiovascular HI = 3E-04
Total Developmental HI = N/A

TABLE 3-9.38.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station NT-1 (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A		--	--		
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
		Exposure Point Total						7E-07					8E-02
		Exposure Medium Total						7E-07					8E-02
Medium Total								7E-07					9E-02
Sediment	Sediment	Station NT-1	Trichloroethene	4E-09	--	--	--	4E-09	Liver	3E-04	--	--	3E-04
			Benzo(a)anthracene	6E-08	--	5E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-06	--	9E-07	--	2E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-07	--	2E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	1E-08	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	--	8E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-05	--	3E-05	7E-05
			Aroclor 1260	2E-08	--	2E-08	--	4E-08	Immune System	4E-03	--	3E-03	7E-03
			Antimony	N/A	--	--	--	N/A	Blood	5E-02	--	--	5E-02
			Arsenic	3E-04	--	1E-04	--	5E-04	Skin	6E+00	--	2E+00	8E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	3E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Copper	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-02	--	--	7E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	2E-01	--	--	2E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	9E-04	--	--	9E-04
			Chemical Total	3E-04	--	1E-04	--	5E-04		6E+00	--	2E+00	9E+00
			Radionuclide Total										
		Exposure Point Total						5E-04					9E+00
		Exposure Medium Total						5E-04					9E+00
Medium Total								5E-04					9E+00
Receptor Total								5E-04					9E+00

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

5E-04

Total Hazard Across All Media

9E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 5E-04
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 5E-04
Using the MADEP slope factor for TCE, the risk for this receptor would change to 5E-04

Total Skin HI = 8E+00
Total Nervous System HI = 1E-01
Total Immune System HI = 9E-03
Total Kidney HI = 2E-01
Total Blood HI = 3E-01
Total General Toxicity HI = 4E-03
Total Liver HI = 7E-04
Total Gastrointestinal System HI = 6E-02
Total Cardiovascular HI = 2E-03
Total Developmental HI = NA

TABLE 3-9.38.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-1 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total					3E-08						1E-02		
Medium Total					3E-08						1E-02		
Sediment	Sediment	Station NT-1	Trichloroethene	2E-10	--	--	--	2E-10	Liver	4E-05	--	--	4E-05
			Benzo(a)anthracene	3E-09	--	6E-09	--	9E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	6E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	4E-10	--	6E-10	--	1E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	--	3E-09	--	6E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-06	--	5E-06	9E-06
			Aroclor 1260	3E-10	--	5E-10	--	7E-10	Immune System	3E-04	--	5E-04	9E-04
			Antimony	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Arsenic	2E-05	--	1E-05	--	3E-05	Skin	1E+00	--	7E-01	2E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	9E-03	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
			Lead	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-04	--	--	2E-04
			Chemical Total	2E-05	--	1E-05	--	3E-05		1E+00	--	7E-01	2E+00
Radionuclide Total													
Exposure Point Total					3E-05						2E+00		
Exposure Medium Total					3E-05						2E+00		
Medium Total					3E-05						2E+00		
Receptor Total					3E-05						2E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-05

Total Skin HI =

2E+00

Total Nervous System HI =

2E-02

Total Immune System HI =

1E-03

Total Kidney HI =

3E-02

Total Blood HI =

4E-02

Total General Toxicity HI =

7E-04

Total Liver HI =

1E-04

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

4E-04

Total Developmental HI =

N/A

TABLE 3-9.39.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE U3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-2 (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver	--	--	4E-04	4E-04
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					
Exposure Medium Total						7E-07						8E-02	
Medium Total						7E-07						8E-02	
Sediment	Sediment	Station NT-2	Trichloroethene	4E-09	--	--	--	4E-09	Liver	3E-04	--	--	3E-04
			Benzo(a)anthracene	5E-08	--	4E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	1E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	9E-09	--	8E-09	--	2E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	--	8E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-05	--	3E-05	7E-05
			Aroclor 1260	2E-08	--	2E-08	--	4E-08	Immune System	4E-03	--	3E-03	7E-03
			Antimony	N/A	--	--	--	N/A	Blood	5E-02	--	--	5E-02
			Arsenic	2E-04	--	9E-05	--	3E-04	Skin	4E+00	--	1E+00	6E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-03	--	2E-02	3E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04
			Copper	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	8E-02	--	--	8E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Thallium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
Vanadium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02			
Zinc	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03			
Chemical Total	2E-04	--	9E-05	--	3E-04		5E+00	--	1E+00	6E+00			
Radionuclide Total													
Exposure Point Total					3E-04						6E+00		
Exposure Medium Total						3E-04						6E+00	
Medium Total						3E-04						6E+00	
Receptor Total						3E-04						6E+00	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

3E-04

Total Hazard Across All Media

6E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-04

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-04

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-04

Total Skin HI =	6E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	9E-03
Total Kidney HI =	2E-01
Total Blood HI =	7E-02
Total General Toxicity HI =	3E-03
Total Liver HI =	7E-04
Total Gastrointestinal System HI =	6E-02
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

TABLE 3-9.39.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-2 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total					3E-08						1E-02		
Medium Total					3E-08						1E-02		
Sediment	Sediment	Station NT-2	Trichloroethene	1E-10	--	--	--	1E-10	Liver	3E-05	--	--	3E-05
			Benzo(a)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	2E-08	--	4E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	8E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	5E-10	--	8E-10	--	1E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	2E-08	--	3E-08	--	4E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	--	3E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	6E-06	--	9E-06	2E-05
			Aroclor 1260	3E-10	--	8E-10	--	9E-10	Immune System	4E-04	--	7E-04	1E-03
			Antimony	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Arsenic	1E-05	--	9E-06	--	2E-05	Skin	7E-01	--	5E-01	1E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	7E-03	8E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02			
Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03			
Chemical Total	1E-05	--	9E-06	--	2E-05		8E-01	--	5E-01	1E+00			
Radionuclide Total													
Exposure Point Total					2E-05						1E+00		
Exposure Medium Total					2E-05						1E+00		
Medium Total					2E-05						1E+00		
Receptor Total					2E-05						1E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

2E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

2E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

2E-05

Total Skin HI =

1E+00

Total Nervous System HI =

2E-02

Total Immune System HI =

1E-03

Total Kidney HI =

3E-02

Total Blood HI =

1E-02

Total General Toxicity HI =

6E-04

Total Liver HI =

1E-04

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

3E-04

Total Developmental HI =

N/A

TABLE 3-9.40.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-3 (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver	--	--	4E-04	4E-04
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					
Exposure Medium Total						7E-07						8E-02	
Medium Total						7E-07						8E-02	
Sediment	Sediment	Station NT-3	Trichloroethene	4E-09	--	--	--	4E-09	Liver	3E-04	--	--	3E-04
			Benzo(a)anthracene	7E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-07	--	2E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	9E-09	--	8E-09	--	2E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	9E-08	--	8E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-05	--	3E-05	7E-05
			Aroclor 1260	2E-08	--	2E-08	--	4E-08	Immune System	4E-03	--	3E-03	7E-03
			Antimony	N/A	--	--	--	N/A	Blood	5E-02	--	--	5E-02
			Arsenic	7E-05	--	2E-05	--	9E-05	Skin	1E+00	--	4E-01	2E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	2E-02	3E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Copper	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-02	--	--	7E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01			
Zinc	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03			
Chemical Total	7E-05	--	3E-05	--	9E-05		2E+00	--	4E-01	2E+00			
Radionuclide Total													
Exposure Point Total					9E-05						2E+00		
Exposure Medium Total						9E-05						2E+00	
Medium Total						9E-05						2E+00	
Receptor Total						1E-04						2E+00	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-04

Total Hazard Across All Media

2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

1E-04

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

1E-04

Using the MADEP slope factor for TCE, the risk for this receptor would change to

1E-04

Total Skin HI =

2E+00

Total Nervous System HI =

1E-01

Total Immune System HI =

9E-03

Total Kidney HI =

2E-01

Total Blood HI =

7E-02

Total General Toxicity HI =

4E-03

Total Liver HI =

7E-04

Total Gastrointestinal System HI =

6E-02

Total Cardiovascular HI =

2E-03

Total Developmental HI =

N/A

TABLE 3-9.40.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station NT-3 (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total					3E-08						1E-02		
Medium Total					3E-08						1E-02		
Sediment	Sediment	Station NT-3	Trichloroethene	2E-10	--	--	--	2E-10	Liver	4E-05	--	--	4E-05
			Benzo(a)anthracene	2E-09	--	4E-09	--	6E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	4E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	3E-10	--	5E-10	--	8E-10	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-06	--	6E-06	1E-05
			Aroclor 1260	3E-10	--	6E-10	--	9E-10	Immune System	4E-04	--	6E-04	1E-03
			Antimony	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Arsenic	4E-06	--	3E-06	--	6E-06	Skin	2E-01	--	1E-01	3E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	7E-03	9E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02			
Zinc	N/A	--	--	--	N/A	Blood	9E-04	--	--	9E-04			
Chemical Total	4E-06	--	3E-06	--	6E-06		3E-01	--	1E-01	4E-01			
Radionuclide Total													
Exposure Point Total					6E-06						4E-01		
Exposure Medium Total					6E-06						4E-01		
Medium Total					6E-06						4E-01		
Receptor Total					6E-06						4E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

6E-06

Total Hazard Across All Media

4E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

6E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

6E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

6E-06

Total Skin HI = 3E-01
Total Nervous System HI = 2E-02
Total Immune System HI = 1E-03
Total Kidney HI = 3E-02
Total Blood HI = 1E-02
Total General Toxicity HI = 6E-04
Total Liver HI = 1E-04
Total Gastrointestinal System HI = 1E-02
Total Cardiovascular HI = 3E-04
Total Developmental HI = N/A

TABLE 3-9.41.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver	--	--	4E-04	4E-04
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					
Exposure Medium Total						7E-07						8E-02	
Medium Total						7E-07						8E-02	
Sediment	Sediment	Station WG	Trichloroethene	3E-09	--	--	--	3E-09	Liver	2E-04	--	--	2E-04
			Benzo(a)anthracene	2E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	2E-07	--	2E-07	--	4E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	4E-08	--	3E-08	--	7E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	3E-09	--	2E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	6E-08	--	5E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	1E-05	--	8E-06	2E-05
			Aroclor 1260	4E-09	--	3E-09	--	7E-09	Immune System	8E-04	--	6E-04	1E-03
			Antimony	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02
			Arsenic	4E-05	--	1E-05	--	5E-05	Skin	6E-01	--	2E-01	8E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-03	--	2E-02	3E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04
			Copper	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Thallium	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
Vanadium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02			
Zinc	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03			
Chemical Total	4E-05	--	1E-05	--	5E-05		9E-01	--	2E-01	1E+00			
Radionuclide Total													
Exposure Point Total					5E-05						1E+00		
Exposure Medium Total						5E-05						1E+00	
Medium Total						5E-05						1E+00	
Receptor Total						5E-05						1E+00	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

5E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

5E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

5E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

5E-05

Total Skin HI =

8E-01

Total Nervous System HI =

7E-02

Total Immune System HI =

3E-03

Total Kidney HI =

2E-01

Total Blood HI =

5E-02

Total General Toxicity HI =

3E-03

Total Liver HI =

6E-04

Total Gastrointestinal System HI =

6E-02

Total Cardiovascular HI =

2E-03

Total Developmental HI =

N/A

TABLE 3-9.41.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WG (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total					3E-08						1E-02		
Medium Total					3E-08						1E-02		
Sediment	Sediment	Station WG	Trichloroethene	2E-10	--	--	--	2E-10	Liver	3E-05	--	--	3E-05
			Benzo(a)anthracene	9E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-09	--	3E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	1E-10	--	2E-10	--	4E-10	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-06	--	3E-06	5E-06
			Aroclor 1260	1E-10	--	2E-10	--	3E-10	Immune System	1E-04	--	2E-04	3E-04
			Antimony	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Arsenic	2E-06	--	1E-06	--	3E-06	Skin	1E-01	--	7E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	7E-03	8E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02			
Zinc	N/A	--	--	--	N/A	Blood	9E-04	--	--	9E-04			
Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	8E-02	2E-01			
Radionuclide Total													
Exposure Point Total					3E-06						2E-01		
Exposure Medium Total					3E-06						2E-01		
Medium Total					3E-06						2E-01		
Receptor Total					3E-06						2E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-06

Total Skin HI =

2E-01

Total Nervous System HI =

1E-02

Total Immune System HI =

5E-04

Total Kidney HI =

3E-02

Total Blood HI =

8E-03

Total General Toxicity HI =

6E-04

Total Liver HI =

1E-04

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

3E-04

Total Developmental HI =

N/A

TABLE 3-9.42.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station WW (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					8E-02
			Exposure Medium Total					7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station WW	Benzo(b)fluoranthene	4E-08	--	3E-08	--	8E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	8E-09	--	6E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Antimony	N/A	--	--	--	N/A	Blood	2E-01	--	--	2E-01
			Arsenic	7E-06	--	3E-06	--	1E-05	Skin	1E-01	--	4E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-02	--	--	3E-02
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	3E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-02	--	--	1E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	9E-03	--	--	9E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-02	--	--	1E-02
			Chemical Total	7E-06	--	3E-06	--	1E-05		6E-01	--	7E-02	7E-01
			Radionuclide Total										
			Exposure Point Total					1E-05					7E-01
			Exposure Medium Total					1E-05					7E-01
Medium Total								1E-05					7E-01
Receptor Total								1E-05					7E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

7E-01

Total Skin HI = 2E-01
 Total Nervous System HI = 3E-02
 Total Immune System HI = 1E-03
 Total Kidney HI = 2E-01
 Total Blood HI = 2E-01
 Total General Toxicity HI = 2E-02
 Total Liver HI = 4E-04
 Total Gastrointestinal System HI = 7E-02
 Total Cardiovascular HI = 3E-02
 Total Developmental HI = N/A

TABLE 3-9.42.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station WW (Reach 1)	Heptachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total						3E-08						1E-02	
Medium Total						3E-08						1E-02	
Sediment	Sediment	Station WW	Benzo(b)fluoranthene	2E-09	--	4E-09	--	6E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	4E-10	--	7E-10	--	1E-09	N/A	N/A	--	N/A	N/A
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	3E-07	--	2E-07	--	5E-07	Skin	2E-02	--	1E-02	3E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-03	--	--	5E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	1E-02	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Nickel	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Thallium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Zinc	N/A	--	--	--	N/A	Gastrointestinal System	2E-03	--	--	2E-03
			Chromium VI	N/A	--	--	--	N/A					
			Chemical Total	3E-07	--	2E-07	--	5E-07		8E-02	--	2E-02	1E-01
Radionuclide Total													
Exposure Point Total					5E-07						1E-01		
Exposure Medium Total						5E-07						1E-01	
Medium Total						5E-07						1E-01	
Receptor Total						5E-07						1E-01	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

5E-07

Total Hazard Across All Media

1E-01

Total Skin HI = 3E-02
 Total Nervous System HI = 6E-03
 Total Immune System HI = 2E-04
 Total Kidney HI = 3E-02
 Total Blood HI = 2E-02
 Total General Toxicity HI = 3E-03
 Total Liver HI = 9E-05
 Total Gastrointestinal System HI = 1E-02
 Total Cardiovascular HI = 5E-03
 Total Developmental HI = N/A

TABLE 3-9.43.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station JY (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver
			Arsenic	--	--	7E-07	--	7E-07	Skin	--	--	6E-03	6E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-02	6E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	1E-03	1E-03
			Chemical Total	--	--	7E-07	--	7E-07		--	--	8E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					7E-07					8E-02
			Exposure Medium Total					7E-07					8E-02
Medium Total								7E-07					8E-02
Sediment	Sediment	Station JY	Aroclor 1254	5E-07	--	N/A	--	5E-07	Immune System	1E-01	--	8E-02	2E-01
			Aroclor 1260	5E-07	--	5E-07	--	1E-06	Immune System	1E-01	--	8E-02	2E-01
			Antimony	N/A	--	--	--	N/A	Blood	7E-02	--	--	7E-02
			Arsenic	4E-05	--	1E-05	--	5E-05	Skin	7E-01	--	2E-01	9E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-03	--	--	4E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	5E-02	7E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-03	--	--	5E-03
			Thallium	N/A	--	--	--	N/A	Blood	7E-02	--	--	7E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	7E-04	--	--	7E-04
			Chemical Total	4E-05	--	1E-05	--	5E-05		1E+00	--	4E-01	2E+00
			Radionuclide Total										
			Exposure Point Total					5E-05					2E+00
			Exposure Medium Total					5E-05					2E+00
Medium Total								5E-05					2E+00
Receptor Total								5E-05					2E+00

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

5E-05

Total Hazard Across All Media

2E+00

Total Skin HI = 9E-01
 Total Nervous System HI = 4E-02
 Total Immune System HI = 4E-01
 Total Kidney HI = 2E-01
 Total Blood HI = 2E-01
 Total General Toxicity HI = 6E-03
 Total Liver HI = 4E-04
 Total Gastrointestinal System HI = 6E-02
 Total Cardiovascular HI = 4E-03
 Total Developmental HI = N/A

TABLE 3-9.43.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station JY (Reach 1)	Hepachlor epoxide	--	--	8E-10	--	8E-10	Liver	--	--	9E-05	9E-05
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					3E-08					
Exposure Medium Total						3E-08						1E-02	
Medium Total						3E-08						1E-02	
Sediment	Sediment	Station JY	Aroclor 1254	1E-08	--	2E-08	--	4E-08	Immune System	2E-02	--	3E-02	4E-02
			Aroclor 1260	1E-08	--	2E-08	--	4E-08	Immune System	2E-02	--	3E-02	4E-02
			Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	2E-06	--	1E-06	--	4E-06	Skin	1E-01	--	8E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	6E-04	--	--	6E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	2E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04
			Nickel	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Thallium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Zinc	N/A	--	--	--	N/A					
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-04	--	--	1E-04
Chemical Total	2E-06	--	2E-06	--	4E-06		2E-01	--	1E-01	3E-01			
Radionuclide Total													
Exposure Point Total					4E-06						3E-01		
Exposure Medium Total						4E-06						3E-01	
Medium Total						4E-06						3E-01	
Receptor Total						4E-06						4E-01	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

4E-06

Total Hazard Across All Media

4E-01

Total Skin HI = 2E-01
 Total Nervous System HI = 7E-03
 Total Immune System HI = 9E-02
 Total Kidney HI = 4E-02
 Total Blood HI = 2E-02
 Total General Toxicity HI = 1E-03
 Total Liver HI = 9E-05
 Total Gastrointestinal System HI = 1E-02
 Total Cardiovascular HI = 6E-04
 Total Developmental HI = N/A

TABLE 3-9.44.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station WS/WSS (Reach 1)	Heptachlor epoxide	--	--	1E-08	--	1E-08	Liver	--	--	5E-04	5E-04	
			Arsenic	--	--	9E-07	--	9E-07	Skin	--	--	8E-03	8E-03	
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-03	5E-03	
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	8E-02	8E-02	
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02	
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-03	2E-03	
			Mercury	--	--	N/A	--	N/A						
			Chemical Total	--	--	9E-07	--	9E-07		--	--	1E-01	1E-01	
			Radionuclide Total											
			Exposure Point Total					9E-07						1E-01
Exposure Medium Total					9E-07						1E-01			
Medium Total					9E-07						1E-01			
Sediment	Sediment	Station WS/WSS	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02	
			Arsenic	4E-05	--	1E-05	--	6E-05	Skin	7E-01	--	2E-01	1E+00	
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-03	--	--	4E-03	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	5E-02	7E-02	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04	
			Copper	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02	
			Lead	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02	
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02	
			Mercury	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03	
			Nickel	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02	
			Thallium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02	
			Vanadium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02	
			Zinc	N/A	--	--	--	N/A						
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	6E-04	--	--	6E-04	
			Chemical Total	4E-05	--	1E-05	--	6E-05		1E+00	--	3E-01	1E+00	
			Radionuclide Total											
			Exposure Point Total					6E-05						1E+00
Exposure Medium Total					6E-05						1E+00			
Medium Total					6E-05						1E+00			
Soil	Surface Soil	Station WS/WSS	Arsenic	3E-06	--	7E-07	--	4E-06	Skin	6E-02	--	1E-02	7E-02	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-04	--	2E-03	2E-03	
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-02	--	--	1E-02	
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03	
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03	
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03	
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02	
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02	
			Zinc	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04	
			Chemical Total	3E-06	--	7E-07	--	4E-06		2E-01	--	1E-02	2E-01	
Radionuclide Total														
Exposure Point Total					4E-06						2E-01			
Exposure Medium Total					4E-06						2E-01			
Medium Total					4E-06						2E-01			
Receptor Total					6E-05						2E+00			

-- = Not Evaluated
NA = Not Applicable

Total Risk Across All Media

6E-05

Total Hazard Across All Media

2E+00

Total Skin H = 1E+00
Total Nervous System H = 8E-02
Total Immune System H = 2E-03
Total Kidney H = 2E-01
Total Blood H = 9E-02
Total General Toxicity H = 4E-03
Total Liver H = 5E-04
Total Gastrointestinal System H = 1E-01
Total Cardiovascular H = 4E-03
Total Developmental H = NA

TABLE 3-9.44.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station WS/WSS (Reach 1)	Heptachlor epoxide	--	--	2E-09	--	2E-09	Liver	--	--	3E-04	3E-04	
			Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	3E-03	3E-03	
			Cadmium	--	--	NA	--	NA	Kidney	--	--	3E-04	3E-04	
			Chromium VI	--	--	NA	--	NA	Gastrointestinal System	--	--	3E-02	3E-02	
			Lead	--	--	NA	--	NA	Nervous System	--	--	4E-03	4E-03	
			Manganese	--	--	NA	--	NA	Immune System	--	--	6E-04	6E-04	
			Mercury	--	--	NA	--	NA						
			Chemical Total	--	--	1E-07	--	1E-07		--	--	4E-02	4E-02	
			Radionuclide Total											
			Exposure Point Total					1E-07						4E-02
Exposure Medium Total						1E-07						4E-02		
Medium Total						1E-07						4E-02		
Sediment	Sediment	Station WS/WSS	Antimony	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03	
			Arsenic	5E-06	--	4E-06	--	8E-06	Skin	3E-01	--	2E-01	5E-01	
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-03	--	--	1E-03	
			Cadmium	N/A	--	NA	--	NA	Kidney	8E-03	--	3E-02	4E-02	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04	
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02	
			Lead	--	--	--	--	--						
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02	
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02	
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03	
			Thallium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02	
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02	
			Zinc	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03	
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-04	--	--	2E-04	
			Chemical Total	5E-06	--	4E-06	--	8E-06		4E-01	--	2E-01	6E-01	
			Radionuclide Total											
			Exposure Point Total					8E-06						6E-01
Exposure Medium Total						8E-06						6E-01		
Medium Total						8E-06						6E-01		
Soil	Surface Soil	Station WS/WSS	Arsenic	2E-06	--	2E-07	--	2E-06	Skin	5E-02	--	8E-03	6E-02	
			Cadmium	N/A	--	NA	--	NA	Kidney	3E-04	--	6E-04	9E-04	
			Chromium VI	N/A	--	--	--	NA	Gastrointestinal System	9E-03	--	--	9E-03	
			Copper	N/A	--	--	--	NA	Kidney	1E-03	--	--	1E-03	
			Manganese	N/A	--	--	--	NA	Nervous System	4E-03	--	--	4E-03	
			Mercury	N/A	--	--	--	NA	Nervous System	2E-03	--	--	2E-03	
			Thallium	N/A	--	--	--	NA	Blood	2E-02	--	--	2E-02	
			Vanadium	N/A	--	--	--	NA	Kidney	3E-02	--	--	3E-02	
			Zinc	N/A	--	--	--	NA	Blood	3E-04	--	--	3E-04	
			Chemical Total	2E-06	--	2E-07	--	2E-06		1E-01	--	9E-03	1E-01	
Radionuclide Total														
Exposure Point Total					2E-06						1E-01			
Exposure Medium Total						2E-06						1E-01		
Medium Total						2E-06						1E-01		
Receptor Total						1E-05						8E-01		

-- = Not Evaluated
NA = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

8E-01

Total Skin H = 5E-01
Total Nervous System H = 3E-02
Total Immune System H = 6E-04
Total Kidney H = 1E-01
Total Blood H = 5E-02
Total General Toxicity H = 2E-03
Total Liver H = 3E-04
Total Gastrointestinal System H = 4E-02
Total Cardiovascular H = 1E-03
Total Developmental H = NA

TABLE 3-9.45.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	9E-08	--	9E-08	Skin	--	--	9E-04	9E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	9E-05	9E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	2E-07	--	2E-07		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					
Exposure Medium Total						2E-07						1E-02	
Medium Total						2E-07						1E-02	
Sediment	Sediment	Station TT-30	Arsenic	5E-05	--	2E-05	--	7E-05	Skin	9E-01	--	3E-01	1E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	8E-03	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Copper	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-01	--	--	4E-01
			Mercury	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Nickel	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Thallium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Zinc	N/A	--	--	--	N/A	Gastrointestinal System	1E-03	--	--	1E-03
			Chemical Total	5E-05	--	2E-05	--	7E-05		1E+00	--	3E-01	2E+00
			Radionuclide Total										
Exposure Point Total					7E-05						2E+00		
Exposure Medium Total						7E-05						2E+00	
Medium Total						7E-05						2E+00	
Receptor Total						7E-05						2E+00	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

7E-05

Total Hazard Across All Media

2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

7E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

7E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

7E-05

Total Skin HI =

1E+00

Total Nervous System HI =

4E-01

Total Immune System HI =

9E-05

Total Kidney HI =

8E-02

Total Blood HI =

1E-02

Total General Toxicity HI =

2E-03

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

5E-03

Total Cardiovascular HI =

2E-04

Total Developmental HI =

N/A

TABLE 3-9.45.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-30 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total						3E-08					5E-03		
Medium Total						3E-08					5E-03		
Sediment	Sediment	Station TT-30	Arsenic	8E-06	--	6E-06	--	1E-05	Skin	4E-01	--	3E-01	7E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	8E-03	9E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	8E-04	--	--	8E-04
			Copper	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Lead	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-01	--	--	2E-01
			Nickel	N/A	--	--	--	N/A	General Toxicity	9E-05	--	--	9E-05
			Thallium	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A	Blood	9E-04	--	--	9E-04
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	5E-04	--	--	5E-04
			Chemical Total	8E-06	--	6E-06	--	1E-05		7E-01	--	3E-01	1E+00
			Radionuclide Total										
			Exposure Point Total					1E-05					1E+00
Exposure Medium Total						1E-05					1E+00		
Medium Total						1E-05					1E+00		
Receptor Total						1E-05					1E+00		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

1E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

1E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

1E-05

Total Skin HI = 7E-01
 Total Nervous System HI = 2E-01
 Total Immune System HI = 4E-05
 Total Kidney HI = 4E-02
 Total Blood HI = 5E-03
 Total General Toxicity HI = 9E-04
 Total Liver HI = 2E-03
 Total Gastrointestinal System HI = 2E-03
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = NA

TABLE 3-9.46.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE 0U3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-31 (Upper Reach 2)	Trichloroethene	--	--	2E-07	--	2E-07	Liver	--	--	7E-03	7E-03
			Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	3E-04	3E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-07	--	5E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					5E-07					3E-02
Exposure Medium Total					5E-07					3E-02			
Medium Total					5E-07					3E-02			
Sediment	Sediment	Station TT-31	Arsenic	4E-06	--	2E-06	--	6E-06	Skin	7E-02	--	2E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-03	--	--	3E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	8E-03	--	2E-02	3E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	8E-02	--	--	8E-02
			Zinc	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Chemical Total	4E-06	--	2E-06	--	6E-06		2E-01	--	4E-02	3E-01
			Radionuclide Total										
Exposure Point Total					6E-06					3E-01			
Exposure Medium Total					6E-06					3E-01			
Medium Total					6E-06					3E-01			
Receptor Total					6E-06					3E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media **6E-06**

Total Hazard Across All Media **3E-01**

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to **6E-06**
Using the CalEPA slope factor for TCE, the risk for this receptor would change to **6E-06**
Using the MADEP slope factor for TCE, the risk for this receptor would change to **6E-06**

Total Skin HI = **1E-01**
Total Nervous System HI = **6E-02**
Total Immune System HI = **3E-04**
Total Kidney HI = **1E-01**
Total Blood HI = **3E-03**
Total General Toxicity HI = **3E-03**
Total Liver HI = **7E-03**
Total Gastrointestinal System HI = **1E-02**
Total Cardiovascular HI = **3E-03**
Total Developmental HI = **N/A**

TABLE 3-9.46.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station TT-31 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Sediment	Sediment	Station TT-31	Arsenic	1E-07	--	9E-08	--	2E-07	Skin	7E-03	--	4E-03	1E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	4E-03	5E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-05	--	--	3E-05
			Copper	N/A	--	--	--	N/A	Kidney	9E-04	--	--	9E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
Zinc	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04			
Chemical Total	1E-07	--	9E-08	--	2E-07		3E-02	--	9E-03	3E-02			
Radionuclide Total													
Exposure Point Total					2E-07					3E-02			
Exposure Medium Total					2E-07					3E-02			
Medium Total					2E-07					3E-02			
Receptor Total					2E-07					4E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 2E-07

Total Hazard Across All Media 4E-02

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 2E-07
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 2E-07
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 2E-07

Total Skin HI = 1E-02
 Total Nervous System HI = 7E-03
 Total Immune System HI = 4E-05
 Total Kidney HI = 2E-02
 Total Blood HI = 4E-04
 Total General Toxicity HI = 3E-04
 Total Liver HI = 2E-03
 Total Gastrointestinal System HI = 1E-03
 Total Cardiovascular HI = 3E-04
 Total Developmental HI = N/A

TABLE 3-9.47.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
			Exposure Medium Total					6E-07					5E-02
Medium Total								6E-07					5E-02
Sediment	Sediment	Station CB-01	Antimony	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Arsenic	1E-05	--	4E-06	--	1E-05	Skin	2E-01	--	6E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	4E-02	6E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Copper	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-02	--	--	6E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Thallium	N/A	--	--	--	N/A	Blood	6E-02	--	--	6E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-01	--	--	2E-01
			Zinc	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Chemical Total	1E-05	--	4E-06	--	1E-05		6E-01	--	1E-01	7E-01
			Radionuclide Total										
			Exposure Point Total					1E-05					7E-01
			Exposure Medium Total					1E-05					7E-01
Medium Total								1E-05					7E-01
Receptor Total								1E-05					7E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

7E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 1E-05
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 1E-05
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 1E-05

1E-05

1E-05

1E-05

Total Skin HI = 3E-01
 Total Nervous System HI = 9E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 3E-01
 Total Blood HI = 7E-02
 Total General Toxicity HI = 2E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = NA

TABLE 3-9.47.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-01 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					2E-02
Exposure Medium Total					8E-08					2E-02			
Medium Total					8E-08					2E-02			
Sediment	Sediment	Station CB-01	Antimony	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Arsenic	1E-06	--	9E-07	--	2E-06	Skin	7E-02	--	5E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	6E-04	--	--	6E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	3E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	7E-04	--	--	7E-04
			Nickel	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Thallium	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Vanadium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-06	--	9E-07	--	2E-06		2E-01	--	8E-02	3E-01
			Radionuclide Total										
Exposure Point Total					2E-06					3E-01			
Exposure Medium Total					2E-06					3E-01			
Medium Total					2E-06					3E-01			
Receptor Total					2E-06					3E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 2E-06

Total Hazard Across All Media 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 2E-06

Total Skin HI = 1E-01
 Total Nervous System HI = 3E-02
 Total Immune System HI = 1E-04
 Total Kidney HI = 1E-01
 Total Blood HI = 3E-02
 Total General Toxicity HI = 9E-04
 Total Liver HI = 5E-03
 Total Gastrointestinal System HI = 4E-03
 Total Cardiovascular HI = 6E-04
 Total Developmental HI = N/A

TABLE 3-9.48.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total						6E-07					5E-02		
Medium Total						6E-07					5E-02		
Sediment	Sediment	Station CB-02	Antimony	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Arsenic	7E-06	--	3E-06	--	1E-05	Skin	1E-01	--	4E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-03	--	--	5E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	2E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Lead	--	--	--	--	--					
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chemical Total	7E-06	--	3E-06	--	1E-05		2E-01	--	6E-02	3E-01
			Radionuclide Total										
Exposure Point Total					1E-05					3E-01			
Exposure Medium Total						1E-05					3E-01		
Medium Total						1E-05					3E-01		
Receptor Total						1E-05					3E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 1E-05

Total Hazard Across All Media 3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 1E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 1E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to 1E-05

Total Skin HI = 2E-01
Total Nervous System HI = 2E-02
Total Immune System HI = 4E-04
Total Kidney HI = 9E-02
Total Blood HI = 1E-02
Total General Toxicity HI = 1E-03
Total Liver HI = 9E-03
Total Gastrointestinal System HI = 2E-02
Total Cardiovascular HI = 5E-03
Total Developmental HI = N/A

TABLE 3-9.48.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-02 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					2E-02
Exposure Medium Total						8E-08					2E-02		
Medium Total						8E-08					2E-02		
Sediment	Sediment	Station CB-02	Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	9E-07	--	7E-07	--	2E-06	Skin	5E-02	--	3E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	1E-02	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	7E-05	--	--	7E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04
			Chemical Total	9E-07	--	7E-07	--	2E-06		9E-02	--	5E-02	1E-01
Radionuclide Total													
Exposure Point Total					2E-06					1E-01			
Exposure Medium Total						2E-06					1E-01		
Medium Total						2E-06					1E-01		
Receptor Total						2E-06					1E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

1E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

2E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

2E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

2E-06

Total Skin HI =

8E-02

Total Nervous System HI =

8E-03

Total Immune System HI =

1E-04

Total Kidney HI =

4E-02

Total Blood HI =

4E-03

Total General Toxicity HI =

4E-04

Total Liver HI =

5E-03

Total Gastrointestinal System HI =

4E-03

Total Cardiovascular HI =

2E-03

Total Developmental HI =

N/A

TABLE 3-9.49.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total					6E-07					5E-02			
Medium Total					6E-07					5E-02			
Sediment	Sediment	Station CB-03	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	1E-04	--	4E-05	--	1E-04	Skin	2E+00	--	6E-01	3E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	6E-02	8E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	4E-03	--	--	4E-03
			Nickel	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Thallium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-04	--	4E-05	--	1E-04		2E+00	--	7E-01	3E+00
			Radionuclide Total										
Exposure Point Total					1E-04					3E+00			
Exposure Medium Total					1E-04					3E+00			
Medium Total					1E-04					3E+00			
Receptor Total					1E-04					3E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 1E-04

Total Hazard Across All Media 3E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 1E-04
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 1E-04
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 1E-04

Total Skin HI = 3E+00
 Total Nervous System HI = 7E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 2E-01
 Total Blood HI = 6E-02
 Total General Toxicity HI = 4E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = NA

TABLE 3-9.49.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-03 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					
Exposure Medium Total						8E-08						2E-02	
Medium Total						8E-08						2E-02	
Sediment	Sediment	Station CB-03	Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	1E-05	--	9E-06	--	2E-05	Skin	7E-01	--	5E-01	1E+00
			Barium	N/A	--	--	--	N/A	Cardiovascular	7E-04	--	--	7E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-03	--	4E-02	5E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Lead	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Thallium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-05	--	9E-06	--	2E-05		8E-01	--	5E-01	1E+00
			Radionuclide Total										
Exposure Point Total					2E-05						1E+00		
Exposure Medium Total						2E-05						1E+00	
Medium Total						2E-05						1E+00	
Receptor Total						2E-05						1E+00	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

2E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

2E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

2E-05

Total Skin HI =	1E+00
Total Nervous System HI =	3E-02
Total Immune System HI =	1E-04
Total Kidney HI =	1E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	5E-03
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	7E-04
Total Developmental HI =	N/A

TABLE 3-9.50.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total					6E-07					5E-02			
Medium Total					6E-07					5E-02			
Sediment	Sediment	Station CB-04	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	3E-05	--	1E-05	--	4E-05	Skin	6E-01	--	2E-01	8E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	2E-02	4E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	General Toxicity	7E-03	--	--	7E-03
			Nickel	N/A	--	--	--	N/A	Blood	1E-01	--	--	1E-01
			Thallium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	3E-05	--	1E-05	--	4E-05		1E+00	--	2E-01	1E+00
			Radionuclide Total										
Exposure Point Total					4E-05					1E+00			
Exposure Medium Total					4E-05					1E+00			
Medium Total					4E-05					1E+00			
Receptor Total					5E-05					1E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 5E-05

Total Hazard Across All Media 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 4E-05
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 4E-05
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 4E-05

Total Skin HI = 8E-01
 Total Nervous System HI = 8E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 2E-01
 Total Blood HI = 2E-01
 Total General Toxicity HI = 8E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = NA

TABLE 3-9.50.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-04 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					2E-02
Exposure Medium Total						8E-08					2E-02		
Medium Total						8E-08					2E-02		
Sediment	Sediment	Station CB-04	Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Arsenic	4E-06	--	3E-06	--	7E-06	Skin	2E-01	--	1E-01	4E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	8E-04	--	--	8E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	2E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Lead	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	9E-03	--	--	9E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Nickel	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Thallium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Vanadium	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	4E-06	--	3E-06	--	7E-06		3E-01	--	2E-01	5E-01
			Radionuclide Total										
Exposure Point Total					7E-06					5E-01			
Exposure Medium Total						7E-06					5E-01		
Medium Total						7E-06					5E-01		
Receptor Total						7E-06					5E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 7E-06

Total Hazard Across All Media 5E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 7E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 7E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 7E-06

Total Skin HI = 4E-01
 Total Nervous System HI = 3E-02
 Total Immune System HI = 1E-04
 Total Kidney HI = 8E-02
 Total Blood HI = 3E-02
 Total General Toxicity HI = 3E-03
 Total Liver HI = 5E-03
 Total Gastrointestinal System HI = 4E-03
 Total Cardiovascular HI = 8E-04
 Total Developmental HI = N/A

TABLE 3-9.51.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05	Arsenic	2E-05	--	4E-06	--	2E-05	Skin	4E-01	--	6E-02	4E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	3E-03	4E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	9E-02	--	--	9E-02
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Thallium	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	2E-05	--	4E-06	--	2E-05		6E-01	--	7E-02	6E-01
		Exposure Point Total				2E-05					6E-01		
	Exposure Medium Total					2E-05					6E-01		
Medium Total						2E-05					6E-01		
Receptor Total						2E-05					6E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

6E-01

Total Skin HI =	4E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	6E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	9E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.51.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05	Arsenic	1E-05	--	9E-07	--	1E-05	Skin	3E-01	--	5E-02	3E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	2E-03	3E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	7E-02	--	--	7E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Zinc	N/A	--	--	--	N/A	Blood	8E-04	--	--	8E-04
			Chemical Total	1E-05	--	9E-07	--	1E-05		4E-01	--	5E-02	5E-01
Radionuclide Total													
Exposure Point Total						1E-05					5E-01		
Exposure Medium Total						1E-05					5E-01		
Medium Total						1E-05					5E-01		
Receptor Total						1E-05					5E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	9E-03
Total Immune System HI =	N/A
Total Kidney HI =	4E-02
Total Blood HI =	3E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.52.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	--	3E-07	--	3E-07	Liver	--	--	9E-03	9E-03
			Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-02	2E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	6E-07	--	6E-07		--	--	5E-02	5E-02
			Radionuclide Total										
			Exposure Point Total					6E-07					5E-02
Exposure Medium Total						6E-07					5E-02		
Medium Total						6E-07					5E-02		
Sediment	Sediment	Station CB-06	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	3E-05	--	9E-06	--	3E-05	Skin	5E-01	--	1E-01	6E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-03	--	--	1E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-02	--	7E-02	1E-01
			Chromium III	N/A	--	--	--	N/A	General Toxicity	6E-04	--	--	6E-04
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	4E-04	--	--	4E-04
			Chemical Total	3E-05	--	9E-06	--	3E-05		8E-01	--	2E-01	1E+00
			Radionuclide Total										
			Exposure Point Total					3E-05					1E+00
Exposure Medium Total						3E-05					1E+00		
Medium Total						3E-05					1E+00		
Receptor Total						3E-05					1E+00		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-05

Total Skin HI = 6E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 4E-04
 Total Kidney HI = 3E-01
 Total Blood HI = 1E-01
 Total General Toxicity HI = 3E-03
 Total Liver HI = 9E-03
 Total Gastrointestinal System HI = 2E-02
 Total Cardiovascular HI = 1E-03
 Total Developmental HI = N/A

TABLE 3-9.52.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-06 (Upper Reach 2)	Trichloroethene	--	--	4E-08	--	4E-08	Liver	--	--	5E-03	5E-03
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	1E-03	1E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-08	--	8E-08		--	--	2E-02	2E-02
			Radionuclide Total										
			Exposure Point Total					8E-08					2E-02
Exposure Medium Total						8E-08					2E-02		
Medium Total						8E-08					2E-02		
Sediment	Sediment	Station CB-06	Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Arsenic	3E-06	--	2E-06	--	5E-06	Skin	2E-01	--	1E-01	3E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	5E-04	--	--	5E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	5E-02	7E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Thallium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Vanadium	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A					
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-04	--	--	2E-04
			Chemical Total	3E-06	--	2E-06	--	5E-06		3E-01	--	2E-01	5E-01
Radionuclide Total													
Exposure Point Total					5E-06					5E-01			
Exposure Medium Total						5E-06					5E-01		
Medium Total						5E-06					5E-01		
Receptor Total						5E-06					5E-01		

-- = Not Evaluated
NA = Not Applicable

Total Risk Across All Media

5E-06

Total Hazard Across All Media

5E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

5E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

5E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

5E-06

Total Skin HI = 3E-01
Total Nervous System HI = 8E-03
Total Immune System HI = 1E-04
Total Kidney HI = 1E-01
Total Blood HI = 5E-02
Total General Toxicity HI = 1E-03
Total Liver HI = 5E-03
Total Gastrointestinal System HI = 5E-03
Total Cardiovascular HI = 5E-04
Total Developmental HI = NA

TABLE 3-9.53.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	9E-08	--	9E-08	Skin	--	--	9E-04	9E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	9E-05	9E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	2E-07	--	2E-07		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					1E-02
Exposure Medium Total					2E-07					1E-02			
Medium Total					2E-07					1E-02			
Sediment	Sediment	Station CB-07	Arsenic	9E-06	--	3E-06	--	1E-05	Skin	2E-01	--	6E-02	2E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	5E-03	8E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Copper	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	9E-06	--	3E-06	--	1E-05		2E-01	--	6E-02	3E-01
			Radionuclide Total										
Exposure Point Total					1E-05					3E-01			
Exposure Medium Total					1E-05					3E-01			
Medium Total					1E-05					3E-01			
Receptor Total					1E-05					3E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

1E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

1E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

1E-05

Total Skin HI =

2E-01

Total Nervous System HI =

1E-02

Total Immune System HI =

9E-05

Total Kidney HI =

6E-02

Total Blood HI =

1E-03

Total General Toxicity HI =

7E-04

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

4E-03

Total Cardiovascular HI =

4E-04

Total Developmental HI =

N/A

TABLE 3-9.53.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station CB-07 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					5E-03
	Exposure Medium Total							3E-08					5E-03
Medium Total								3E-08					5E-03
Sediment	Sediment	Station CB-07	Arsenic	2E-06	--	1E-06	--	3E-06	Skin	9E-02	--	6E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	5E-03	6E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	1E-03	--	--	1E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	6E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					2E-01
	Exposure Medium Total							3E-06					2E-01
Medium Total								3E-06					2E-01
Receptor Total								3E-06					2E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media **3E-06**

Total Hazard Across All Media **2E-01**

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to **3E-06**
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to **3E-06**
 Using the MADEP slope factor for TCE, the risk for this receptor would change to **3E-06**

Total Skin HI = **1E-01**
 Total Nervous System HI = **6E-03**
 Total Immune System HI = **4E-05**
 Total Kidney HI = **3E-02**
 Total Blood HI = **5E-04**
 Total General Toxicity HI = **4E-04**
 Total Liver HI = **2E-03**
 Total Gastrointestinal System HI = **1E-03**
 Total Cardiovascular HI = **2E-04**
 Total Developmental HI = **N/A**

TABLE 3-9.54.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	--	2E-07	--	2E-07	Liver	--	--	7E-03	7E-03
			Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	3E-04	3E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-07	--	5E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					5E-07					3E-02
Exposure Medium Total					5E-07					3E-02			
Medium Total					5E-07					3E-02			
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	1E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	3E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	1E-09	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-09	--	6E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	9E-06	--	7E-06	2E-05
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	3E-05	--	1E-05	--	4E-05	Skin	6E-01	--	2E-01	8E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-03	--	--	1E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	8E-03	--	2E-02	3E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Zinc	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-03	--	--	1E-03
			Chemical Total	3E-05	--	1E-05	--	4E-05		7E-01	--	2E-01	9E-01
Radionuclide Total													
Exposure Point Total					4E-05					9E-01			
Exposure Medium Total					4E-05					9E-01			
Medium Total					4E-05					9E-01			
Receptor Total					4E-05					1E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

4E-05

Total Hazard Across All Media

1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

4E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

4E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

4E-05

Total Skin HI =

8E-01

Total Nervous System HI =

8E-02

Total Immune System HI =

3E-04

Total Kidney HI =

9E-02

Total Blood HI =

3E-02

Total General Toxicity HI =

3E-03

Total Liver HI =

7E-03

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

1E-03

Total Developmental HI =

N/A

TABLE 3-9.54.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station 16/TT-33 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03	
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04	
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05	
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03	
			Lead											
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03	
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05	
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03	
			Radionuclide Total											
			Exposure Point Total					3E-08						5E-03
Exposure Medium Total					3E-08						5E-03			
Medium Total					3E-08						5E-03			
Sediment	Sediment	Station 16/TT-33	Benzo(a)anthracene	7E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A	
			Benzo(a)pyrene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A	
			Benzo(b)fluoranthene	2E-09	--	3E-09	--	4E-09	N/A	N/A	--	N/A	N/A	
			Benzo(k)fluoranthene	7E-11	--	1E-10	--	2E-10	N/A	N/A	--	N/A	N/A	
			Indeno(1,2,3-cd)pyrene	4E-10	--	7E-10	--	1E-09	N/A	N/A	--	N/A	N/A	
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-06	--	2E-06	4E-06	
			Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03	
			Arsenic	2E-06	--	1E-06	--	3E-06	Skin	1E-01	--	6E-02	2E-01	
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	6E-03	7E-03	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-05	--	--	9E-05	
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03	
			Mercury	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03	
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04	
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03	
			Zinc	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04	
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	6E-05	--	--	6E-05	
			Chemical Total	2E-06	--	1E-06	--	3E-06		1E-01	--	7E-02	2E-01	
Radionuclide Total														
Exposure Point Total					3E-06						2E-01			
Exposure Medium Total					3E-06						2E-01			
Medium Total					3E-06						2E-01			
Receptor Total					3E-06						2E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

3E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-06

Total Skin HI =

2E-01

Total Nervous System HI =

1E-02

Total Immune System HI =

4E-05

Total Kidney HI =

2E-02

Total Blood HI =

4E-03

Total General Toxicity HI =

3E-04

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

2E-03

Total Cardiovascular HI =

2E-04

Total Developmental HI =

N/A

TABLE 3-9.55.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	--	2E-07	--	2E-07	Liver	--	--	7E-03	7E-03
			Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	3E-04	3E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-07	--	5E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					5E-07					3E-02
Exposure Medium Total							5E-07				3E-02		
Medium Total							5E-07				3E-02		
Sediment	Sediment	Station 09	Benzo(a)anthracene	6E-08	--	5E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	6E-07	--	5E-07	--	1E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	1E-07	--	8E-08	--	2E-07	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	1E-04	--	1E-04	2E-04
			Antimony	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Arsenic	5E-06	--	2E-06	--	6E-06	Skin	8E-02	--	3E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	7E-04	--	--	7E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	2E-03	3E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	6E-05	--	--	6E-05
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Lead	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	7E-04	--	--	7E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	6E-06	--	3E-06	--	8E-06		2E-01	--	3E-02	2E-01
Radionuclide Total													
Exposure Point Total					8E-06					2E-01			
Exposure Medium Total							8E-06				2E-01		
Medium Total							8E-06				2E-01		
Receptor Total							9E-06				3E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

9E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

9E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

9E-06

Total Skin HI =

1E-01

Total Nervous System HI =

7E-02

Total Immune System HI =

3E-04

Total Kidney HI =

3E-02

Total Blood HI =

3E-02

Total General Toxicity HI =

1E-03

Total Liver HI =

7E-03

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

7E-04

Total Developmental HI =

N/A

TABLE 3-9.55.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 09 (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Sediment	Sediment	Station 09	Benzo(a)anthracene	3E-09	--	5E-09	--	9E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	3E-08	--	6E-08	--	9E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	9E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	8E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	5E-09	--	9E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	--	3E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-06	--	5E-06	9E-06
			Antimony	N/A	--	--	--	N/A	Blood	6E-04	--	--	6E-04
			Arsenic	3E-07	--	2E-07	--	4E-07	Skin	1E-02	--	9E-03	2E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-04	--	7E-04	9E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-06	--	--	9E-06
			Copper	N/A	--	--	--	N/A	Kidney	5E-04	--	--	5E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	9E-04	--	--	9E-04
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Thallium	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Zinc	N/A	--	--	--	N/A	Blood	2E-04	--	--	2E-04
Chemical Total	3E-07	--	3E-07	--	6E-07		2E-02	--	1E-02	3E-02			
Radionuclide Total													
Exposure Point Total					6E-07					3E-02			
Exposure Medium Total					6E-07					3E-02			
Medium Total					6E-07					3E-02			
Receptor Total					6E-07					4E-02			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

6E-07

Total Hazard Across All Media

4E-02

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

6E-07

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

6E-07

Using the MADEP slope factor for TCE, the risk for this receptor would change to

6E-07

Total Skin HI =

2E-02

Total Nervous System HI =

4E-03

Total Immune System HI =

4E-05

Total Kidney HI =

5E-03

Total Blood HI =

5E-03

Total General Toxicity HI =

1E-04

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

1E-03

Total Cardiovascular HI =

1E-04

Total Developmental HI =

N/A

TABLE 3-9.56.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	--	2E-07	--	2E-07	Liver	--	--	7E-03	7E-03
			Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	3E-04	3E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-07	--	5E-07		--	--	3E-02	3E-02
			Radionuclide Total										
			Exposure Point Total					5E-07					3E-02
Exposure Medium Total					5E-07					3E-02			
Medium Total					5E-07					3E-02			
Soil	Surface Soil	Station DA	Arsenic	5E-05	--	1E-05	--	6E-05	Skin	9E-01	--	2E-01	1E+00
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	1E-02	2E-02
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-01	--	--	2E-01
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-02	--	--	6E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Thallium	N/A	--	--	--	N/A	Blood	6E-02	--	--	6E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Zinc	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Chemical Total	5E-05	--	1E-05	--	6E-05		1E+00	--	2E-01	2E+00
Radionuclide Total													
Exposure Point Total					6E-05					2E+00			
Exposure Medium Total					6E-05					2E+00			
Medium Total					6E-05					2E+00			
Receptor Total					6E-05					2E+00			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

6E-05

Total Hazard Across All Media

2E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

6E-05

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

6E-05

Using the MADEP slope factor for TCE, the risk for this receptor would change to

6E-05

Total Skin HI =

1E+00

Total Nervous System HI =

1E-01

Total Immune System HI =

3E-04

Total Kidney HI =

9E-02

Total Blood HI =

6E-02

Total General Toxicity HI =

N/A

Total Liver HI =

7E-03

Total Gastrointestinal System HI =

2E-01

Total Cardiovascular HI =

N/A

Total Developmental HI =

N/A

TABLE 3-9.56.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station DA (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Soil	Surface Soil	Station DA	Arsenic	3E-06	--	1E-06	--	4E-06	Skin	2E-01	--	5E-02	2E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-04	--	1E-03	2E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	3E-02	--	--	3E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Zinc	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Chemical Total	3E-06	--	1E-06	--	4E-06		2E-01	--	5E-02	3E-01
Radionuclide Total													
Exposure Point Total					4E-06					3E-01			
Exposure Medium Total					4E-06					3E-01			
Medium Total					4E-06					3E-01			
Receptor Total					4E-06					3E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

4E-06

Total Hazard Across All Media

3E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

4E-06

Using the CalEPA slope factor for TCE, the risk for this receptor would change to

4E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

4E-06

Total Skin HI =

2E-01

Total Nervous System HI =

7E-03

Total Immune System HI =

4E-05

Total Kidney HI =

1E-02

Total Blood HI =

1E-02

Total General Toxicity HI =

N/A

Total Liver HI =

2E-03

Total Gastrointestinal System HI =

3E-02

Total Cardiovascular HI =

N/A

Total Developmental HI =

N/A

TABLE 3-9.57.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	--	6E-08	--	6E-08	Liver
			Arsenic	--	--	9E-08	--	9E-08	Skin	--	--	9E-04	9E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	1E-04	1E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	9E-05	9E-05
			Chemical Total	--	--	2E-07	--	2E-07		--	--	1E-02	1E-02
			Radionuclide Total										
			Exposure Point Total					2E-07					1E-02
			Exposure Medium Total					2E-07					1E-02
Medium Total								2E-07					1E-02
Sediment	Sediment	Station AM	Antimony	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Arsenic	5E-06	--	2E-06	--	7E-06	Skin	1E-01	--	3E-02	1E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	4E-03	6E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	9E-03	--	--	9E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	5E-06	--	2E-06	--	7E-06		1E-01	--	4E-02	2E-01
			Radionuclide Total										
			Exposure Point Total					7E-06					2E-01
			Exposure Medium Total					7E-06					2E-01
Medium Total								7E-06					2E-01
Receptor Total								8E-06					2E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

8E-06

Total Hazard Across All Media

2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 8E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 8E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 8E-06

8E-06

8E-06

8E-06

Total Skin HI = 1E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 9E-05
 Total Kidney HI = 2E-02
 Total Blood HI = 6E-03
 Total General Toxicity HI = 5E-04
 Total Liver HI = 2E-03
 Total Gastrointestinal System HI = 4E-03
 Total Cardiovascular HI = 4E-04
 Total Developmental HI = NA

TABLE 3-9.57.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AM (Upper Reach 2)	Trichloroethene	--	--	1E-08	--	1E-08	Liver	--	--	2E-03	2E-03
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Cadmium	--	--	N/A	--	N/A	Kidney	--	--	6E-05	6E-05
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-08	--	3E-08		--	--	5E-03	5E-03
			Radionuclide Total										
			Exposure Point Total					3E-08					5E-03
Exposure Medium Total					3E-08					5E-03			
Medium Total					3E-08					5E-03			
Sediment	Sediment	Station AM	Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Arsenic	9E-07	--	6E-07	--	2E-06	Skin	5E-02	--	3E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-04	--	--	2E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-04	--	4E-03	5E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	5E-05	--	--	5E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Lead	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Mercury	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Nickel	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Thallium	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03
			Vanadium	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	9E-07	--	6E-07	--	2E-06		7E-02	--	4E-02	1E-01
			Radionuclide Total										
Exposure Point Total					2E-06					1E-01			
Exposure Medium Total					2E-06					1E-01			
Medium Total					2E-06					1E-01			
Receptor Total					2E-06					1E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 2E-06

Total Hazard Across All Media 1E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the CalEPA slope factor for TCE, the risk for this receptor would change to 2E-06
 Using the MADEP slope factor for TCE, the risk for this receptor would change to 2E-06

Total Skin HI = 8E-02
 Total Nervous System HI = 1E-02
 Total Immune System HI = 4E-05
 Total Kidney HI = 1E-02
 Total Blood HI = 3E-03
 Total General Toxicity HI = 3E-04
 Total Liver HI = 2E-03
 Total Gastrointestinal System HI = 1E-03
 Total Cardiovascular HI = 2E-04
 Total Developmental HI = N/A

TABLE 3-9.58.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient						
				Young Child + Adult					Young Child						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	9E-04	9E-04		
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	2E-03	2E-03	
			Lead						Nervous System						
			Manganese	--	--	N/A	--	N/A			--	--	5E-03	5E-03	
			Chemical Total	--	--	1E-07	--	1E-07		--	--	8E-03	8E-03		
			Radionuclide Total												
Exposure Point Total					1E-07						8E-03				
Exposure Medium Total					1E-07							8E-03			
Medium Total					1E-07							8E-03			
Sediment	Sediment	Station KF	Arsenic	7E-06	--	3E-06	--	1E-05	Skin	1E-01	--	4E-02	2E-01		
			Barium	N/A	--	--	--	N/A		Cardiovascular	8E-04	--	--	8E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	3E-03	5E-03		
			Chromium III	N/A	--	--	--	N/A		General Toxicity	8E-05	--	--	8E-05	
			Copper	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03		
			Lead												
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03		
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02		
			Nickel	N/A	--	--	--	N/A	General Toxicity	6E-04	--	--	6E-04		
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02		
			Zinc	N/A	--	--	--	N/A		Blood	2E-03	--	--	2E-03	
			Chemical Total	7E-06	--	3E-06	--	1E-05		2E-01	--	4E-02	2E-01		
			Radionuclide Total												
			Exposure Point Total					1E-05						2E-01	
			Exposure Medium Total					1E-05							2E-01
Medium Total					1E-05							2E-01			
Soil	Surface Soil	Station KF	Arsenic	1E-05	--	2E-06	--	1E-05	Skin	2E-01	--	4E-02	3E-01		
			Cadmium	N/A	--	N/A	--	N/A		Kidney	2E-03	--	4E-03	7E-03	
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	6E-02	--	--	6E-02		
			Copper	N/A	--	--	--	N/A		Kidney	5E-03	--	--	5E-03	
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02		
			Mercury	N/A	--	--	--	N/A		Nervous System	1E-02	--	--	1E-02	
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02		
			Zinc	N/A	--	--	--	N/A		Blood	2E-03	--	--	2E-03	
			Chemical Total	1E-05	--	2E-06	--	1E-05		4E-01	--	4E-02	4E-01		
			Radionuclide Total												
			Exposure Point Total					1E-05						4E-01	
			Exposure Medium Total					1E-05							4E-01
			Medium Total					1E-05							4E-01
			Receptor Total					2E-05							6E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

6E-01

Total Skin HI = 4E-01
Total Nervous System HI = 5E-02
Total Immune System HI = N/A
Total Kidney HI = 1E-01
Total Blood HI = 4E-03
Total General Toxicity HI = 7E-04
Total Liver HI = N/A
Total Gastrointestinal System HI = 6E-02
Total Cardiovascular HI = 8E-04
Total Developmental HI = N/A

TABLE 3-9.58.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station KF (Lower Reach 2)	Arsenic	--	--	5E-09	--	5E-09	Skin	--	--	2E-04	2E-04	
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-04	4E-04
			Lead						Nervous System					
			Manganese	--	--	N/A	--	N/A			--	--	8E-04	8E-04
			Chemical Total	--	--	5E-09	--	5E-09		--	--	1E-03	1E-03	
			Radionuclide Total											
Exposure Point Total					5E-09						1E-03			
Exposure Medium Total					5E-09							1E-03		
Medium Total					5E-09							1E-03		
Sediment	Sediment	Station KF	Arsenic	4E-07	--	3E-07	--	6E-07	Skin	2E-02	--	1E-02	3E-02	
			Barium	N/A	--	--	--	N/A		Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-04	--	1E-03	1E-03	
			Chromium III	N/A	--	--	--	N/A		General Toxicity	1E-05	--	--	1E-05
			Copper	N/A	--	--	--	N/A	Kidney	9E-04	--	--	9E-04	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03	
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03	
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04	
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03	
			Zinc	N/A	--	--	--	N/A		Blood	3E-04	--	--	3E-04
			Chemical Total	4E-07	--	3E-07	--	6E-07		3E-02	--	1E-02	5E-02	
			Radionuclide Total											
			Exposure Point Total					6E-07						5E-02
			Exposure Medium Total					6E-07						
Medium Total					6E-07							5E-02		
Soil	Surface Soil	Station KF	Arsenic	6E-07	--	2E-07	--	9E-07	Skin	4E-02	--	1E-02	5E-02	
			Cadmium	N/A	--	N/A	--	N/A		Kidney	3E-04	--	1E-03	2E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	9E-03	--	--	9E-03	
			Copper	N/A	--	--	--	N/A		Kidney	9E-04	--	--	9E-04
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03	
			Mercury	N/A	--	--	--	N/A		Nervous System	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03	
			Zinc	N/A	--	--	--	N/A		Blood	3E-04	--	--	3E-04
			Chemical Total	6E-07	--	2E-07	--	9E-07		6E-02	--	1E-02	7E-02	
			Radionuclide Total											
			Exposure Point Total					9E-07						7E-02
			Exposure Medium Total					9E-07						
Medium Total					9E-07							7E-02		
Receptor Total					2E-06							1E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

1E-01

Total Skin HI =	8E-02
Total Nervous System HI =	9E-03
Total Immune System HI =	N/A
Total Kidney HI =	2E-02
Total Blood HI =	6E-04
Total General Toxicity HI =	1E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

TABLE 3-9.59.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient						
				Young Child + Adult					Young Child						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Surface Water	Surface Water	Station 06 (Lower Reach 2)	Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	9E-04	9E-04		
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-03	2E-03		
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03		
			Manganese	--	--	N/A	--	N/A							
			Chemical Total	--	--	1E-07	--	1E-07		--	--	8E-03	8E-03		
			Radionuclide Total												
		Exposure Point Total					1E-07					8E-03			
		Exposure Medium Total					1E-07					8E-03			
Medium Total							1E-07					8E-03			
Sediment	Sediment	Station 06	Benzo(a)anthracene	9E-08	--	7E-08	--	2E-07	N/A	N/A	--	N/A	N/A		
			Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A		
			Benzo(b)fluoranthene	2E-07	--	2E-07	--	4E-07	N/A	N/A	--	N/A	N/A		
			Benzo(k)fluoranthene	3E-08	--	2E-08	--	5E-08	N/A	N/A	--	N/A	N/A		
			Dibenz(a,h)anthracene	2E-07	--	2E-07	--	4E-07	N/A	N/A	--	N/A	N/A		
			Indeno(1,2,3-cd)pyrene	9E-08	--	7E-08	--	2E-07	N/A	N/A	--	N/A	N/A		
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	4E-05	--	3E-05	8E-05		
			Antimony	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03		
			Arsenic	4E-06	--	1E-06	--	5E-06	Skin	7E-02	--	2E-02	9E-02		
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-04	--	--	4E-04		
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04		
			Copper	N/A	--	--	--	N/A	Kidney	6E-03	--	--	6E-03		
			Lead												
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03		
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02		
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03		
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02		
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02		
			Zinc	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03		
					Chemical Total	6E-06	--	3E-06	--	9E-06		2E-01	--	2E-02	2E-01
					Radionuclide Total										
		Exposure Point Total					9E-06					2E-01			
		Exposure Medium Total					9E-06					2E-01			
Medium Total							9E-06					2E-01			
Receptor Total							9E-06					2E-01			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

2E-01

Total Skin HI =	9E-02
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	3E-02
Total Blood HI =	4E-02
Total General Toxicity HI =	2E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	4E-04
Total Developmental HI =	N/A

TABLE 3-9.59.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 08 (Lower Reach 2)	Arsenic	--	--	5E-09	--	5E-09	Skin	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-04
			Lead	--	--	N/A	--	N/A	Nervous System		--	--	8E-04
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	5E-09	--	5E-09		--	--	1E-03	1E-03
			Radionuclide Total										
Exposure Point Total												5E-09	1E-03
Exposure Medium Total												5E-09	1E-03
Medium Total												5E-09	1E-03
Sediment	Sediment	Station 08	Benzo(a)anthracene	3E-09	--	5E-09	--	9E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	4E-08	--	7E-08	--	1E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	9E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	9E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Dibenz(a,h)anthracene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	3E-09	--	4E-09	--	7E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	6E-06	--	8E-06	1E-05
			Antimony	N/A	--	--	--	N/A	Blood	6E-04	--	--	6E-04
			Arsenic	1E-07	--	1E-07	--	2E-07	Skin	8E-03	--	5E-03	1E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	6E-05	--	--	6E-05
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-06	--	--	9E-06
			Copper	N/A	--	--	--	N/A	Kidney	6E-04	--	--	6E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-04	--	--	5E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Thallium	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Zinc	N/A	--	--	--	N/A	Blood	3E-04	--	--	3E-04
			Chemical Total	2E-07	--	2E-07	--	4E-07		2E-02	--	5E-03	2E-02
Radionuclide Total													
Exposure Point Total												4E-07	2E-02
Exposure Medium Total												4E-07	2E-02
Medium Total												4E-07	2E-02
Receptor Total												4E-07	3E-02

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

4E-07

Total Hazard Across All Media

3E-02

Total Skin HI = 1E-02
 Total Nervous System HI = 2E-03
 Total Immune System HI = N/A
 Total Kidney HI = 4E-03
 Total Blood HI = 5E-03
 Total General Toxicity HI = 2E-04
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 4E-04
 Total Cardiovascular HI = 6E-05
 Total Developmental HI = N/A

TABLE 3-9.60.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03		
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03		
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04		
			Mercury	--	--	N/A	--	N/A							
			Chemical Total	--	--	N/A	--	N/A					1E-02	1E-02	
			Radionuclide Total												
Exposure Point Total												1E-02			
Exposure Medium Total												1E-02			
Medium Total												1E-02			
Sediment	Sediment	Station 07/DP	Trichloroethene	2E-09	--	--	--	2E-09	Liver	1E-04	--	--	1E-04		
			Benzo(a)anthracene	7E-07	--	6E-07	--	1E-06	N/A	N/A	--	N/A	N/A		
			Benzo(a)pyrene	7E-06	--	6E-06	--	1E-05	N/A	N/A	--	N/A	N/A		
			Benzo(b)fluoranthene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A		
			Benzo(k)fluoranthene	1E-07	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A		
			Dibenz(a,h)anthracene	1E-06	--	1E-06	--	3E-06	N/A	N/A	--	N/A	N/A		
			Indeno(1,2,3-cd)pyrene	5E-07	--	4E-07	--	9E-07	N/A	N/A	--	N/A	N/A		
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	5E-04	--	4E-04	8E-04		
			Aroclor 1260	2E-08	--	2E-08	--	4E-08	Immune System	5E-03	--	4E-03	8E-03		
			Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03		
			Arsenic	1E-05	--	4E-06	--	1E-05	Skin	2E-01	--	6E-02	3E-01		
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03		
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	2E-02	3E-02		
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04		
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02		
			Lead	N/A	--	--	--	N/A							
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03		
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02		
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03		
			Thallium	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02		
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-02	--	--	7E-02		
			Zinc	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03		
			Chemical Total	2E-05	--	1E-05	--	3E-05		4E-01	--	8E-02	5E-01		
			Radionuclide Total												
			Exposure Point Total												5E-01
			Exposure Medium Total												5E-01
			Medium Total												5E-01
Soil	Surface Soil	Station 07/DP	Arsenic	1E-05	--	2E-06	--	1E-05	Skin	2E-01	--	4E-02	2E-01		
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-04	--	6E-04	9E-04		
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	7E-02	--	--	7E-02		
			Copper	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03		
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03		
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02		
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02		
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02		
			Zinc	N/A	--	--	--	N/A	Blood	9E-02	--	--	9E-02		
			Chemical Total	1E-05	--	2E-06	--	1E-05		5E-01	--	4E-02	5E-01		
			Radionuclide Total												
			Exposure Point Total												5E-01
			Exposure Medium Total												5E-01
			Medium Total												5E-01
Receptor Total												1E+00			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 5E-05

Total Hazard Across All Media 1E+00

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to 5E-05
Using the CalEPA slope factor for TCE, the risk for this receptor would change to 5E-05
Using the MADEP slope factor for TCE, the risk for this receptor would change to 5E-05

Total Skin HI = 5E-01
Total Nervous System HI = 8E-02
Total Immune System HI = 9E-03
Total Kidney HI = 2E-01
Total Blood HI = 2E-01
Total General Toxicity HI = 3E-03
Total Liver HI = 1E-04
Total Gastrointestinal System HI = 7E-02
Total Cardiovascular HI = 2E-03
Total Developmental HI = N/A

TABLE 3-9.60.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCS
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Surface Water	Surface Water	Station 07/DP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-04	5E-04		
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03		
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	7E-05	7E-05		
			Mercury	--	--	N/A	--	N/A							
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03		
			Radionuclide Total												
Exposure Point Total						N/A						2E-03			
Exposure Medium Total						N/A						2E-03			
Medium Total						N/A						2E-03			
Sediment	Sediment	Station 07/DP	Trichloroethene	8E-11	--	--	--	8E-11	Liver	2E-05	--	--	2E-05		
			Benzo(a)anthracene	4E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A		
			Benzo(a)pyrene	4E-07	--	6E-07	--	1E-06	N/A	N/A	--	N/A	N/A		
			Benzo(b)fluoranthene	6E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A		
			Benzo(k)fluoranthene	6E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A		
			Dibenz(a,h)anthracene	7E-08	--	1E-07	--	2E-07	N/A	N/A	--	N/A	N/A		
			Indeno(1,2,3-cd)pyrene	3E-08	--	4E-08	--	7E-08	N/A	N/A	--	N/A	N/A		
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	8E-05	--	1E-04	2E-04		
			Aroclor 1260	6E-10	--	1E-09	--	2E-09	Immune System	8E-04	--	1E-03	2E-03		
			Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03		
			Arsenic	6E-07	--	4E-07	--	1E-06	Skin	3E-02	--	2E-02	5E-02		
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04		
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	5E-03	7E-03		
			Chromium III	N/A	--	--	--	N/A	General Toxicity	4E-05	--	--	4E-05		
			Copper	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03		
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03		
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03		
			Mercury	N/A	--	--	--	N/A	General Toxicity	3E-04	--	--	3E-04		
			Nickel	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03		
			Thallium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02		
			Vanadium	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03		
			Zinc	N/A	--	--	--	N/A							
			Chemical Total	1E-06	--	1E-06	--	3E-06		7E-02	--	3E-02	9E-02		
			Radionuclide Total												
			Exposure Point Total						3E-06						9E-02
			Exposure Medium Total						3E-06						9E-02
			Medium Total						3E-06						9E-02
Soil	Surface Soil	Station 07/DP	Arsenic	6E-07	--	2E-07	--	9E-07	Skin	4E-02	--	1E-02	5E-02		
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-05	--	2E-04	2E-04		
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-02	--	--	1E-02		
			Copper	N/A	--	--	--	N/A	Kidney	8E-04	--	--	8E-04		
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03		
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03		
			Thallium	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03		
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03		
			Zinc	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02		
			Chemical Total	6E-07	--	2E-07	--	9E-07		8E-02	--	1E-02	9E-02		
			Radionuclide Total												
			Exposure Point Total						9E-07						9E-02
			Exposure Medium Total						9E-07						9E-02
Medium Total						9E-07						9E-02			
Receptor Total						3E-06						2E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

2E-01

Using the NCEA low-end slope factor for TCE, the risk for this receptor would change to

3E-06

Using the CAPEA slope factor for TCE, the risk for this receptor would change to

3E-06

Using the MADEP slope factor for TCE, the risk for this receptor would change to

3E-06

Total Skin HI =

1E-01

Total Nervous System HI =

1E-02

Total Immune System HI =

2E-03

Total Kidney HI =

3E-02

Total Blood HI =

3E-02

Total General Toxicity HI =

6E-04

Total Liver HI =

2E-05

Total Gastrointestinal System HI =

1E-02

Total Cardiovascular HI =

3E-04

Total Developmental HI =

N/A

TABLE 3-9.61.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	1E-02	1E-02
			Radionuclide Total										
Exposure Point Total												N/A	1E-02
Exposure Medium Total												N/A	1E-02
Medium Total												N/A	1E-02
Sediment	Sediment	Station LP	Antimony	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Arsenic	2E-05	--	7E-06	--	3E-05	Skin	4E-01	--	1E-01	5E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	8E-04	--	--	8E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	8E-03	1E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	7E-05	--	--	7E-05
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-03	--	--	4E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-03	--	--	1E-03
			Thallium	N/A	--	--	--	N/A	Blood	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Zinc	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Chemical Total	2E-05	--	7E-06	--	3E-05		5E-01	--	1E-01	6E-01
			Radionuclide Total										
Exposure Point Total												3E-05	6E-01
Exposure Medium Total												3E-05	6E-01
Medium Total												3E-05	6E-01
Receptor Total												3E-05	6E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

6E-01

Total Skin HI =	5E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	4E-04
Total Kidney HI =	6E-02
Total Blood HI =	5E-02
Total General Toxicity HI =	1E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	8E-04
Total Developmental HI =	N/A

TABLE 3-9.61.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station LP (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-04	5E-04	
			Lead											
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03	
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	7E-05	7E-05	
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03	
			Radionuclide Total											
Exposure Point Total												2E-03		
Exposure Medium Total												2E-03		
Medium Total												2E-03		
Sediment	Sediment	Station LP	Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03	
			Arsenic	1E-06	--	8E-07	--	2E-06	Skin	6E-02	--	4E-02	1E-01	
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	6E-04	--	3E-03	3E-03	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-05	--	--	1E-05	
			Copper	N/A	--	--	--	N/A	Kidney	3E-03	--	--	3E-03	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04	
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03	
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04	
			Thallium	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03	
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03	
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03	
			Chemical Total	1E-06	--	8E-07	--	2E-06		8E-02	--	4E-02	1E-01	
			Radionuclide Total											
Exposure Point Total												1E-01		
Exposure Medium Total												1E-01		
Medium Total												1E-01		
Receptor Total												1E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

1E-01

Total Skin HI =	1E-01
Total Nervous System HI =	4E-03
Total Immune System HI =	7E-05
Total Kidney HI =	1E-02
Total Blood HI =	8E-03
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-04
Total Cardiovascular HI =	1E-04
Total Developmental HI =	N/A

TABLE 3-9.62.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-03	8E-03
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	4E-04	4E-04
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	1E-02	1E-02
			Radionuclide Total										
Exposure Point Total												N/A	1E-02
Exposure Medium Total												N/A	1E-02
Medium Total												N/A	1E-02
Sediment	Sediment	Station AS	Antimony	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Arsenic	2E-05	--	6E-06	--	2E-05	Skin	3E-01	--	1E-01	4E-01
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	4E-02	6E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-04	--	--	9E-04
			Copper	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	3E-03	--	--	3E-03
			Thallium	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Chemical Total	2E-05	--	6E-06	--	2E-05		5E-01	--	1E-01	7E-01
Radionuclide Total													
Exposure Point Total												2E-05	7E-01
Exposure Medium Total												2E-05	7E-01
Medium Total												2E-05	7E-01
Receptor Total												2E-05	7E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

7E-01

Total Skin HI =	4E-01
Total Nervous System HI =	6E-02
Total Immune System HI =	4E-04
Total Kidney HI =	2E-01
Total Blood HI =	4E-02
Total General Toxicity HI =	4E-03
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	2E-03
Total Developmental HI =	N/A

TABLE 3-9.62.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station AS (Reach 3)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-04	5E-04
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	7E-05	7E-05
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03
			Radionuclide Total										
Exposure Point Total												2E-03	
Exposure Medium Total												2E-03	
Medium Total												2E-03	
Sediment	Sediment	Station AS	Antimony	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Arsenic	8E-07	--	6E-07	--	1E-06	Skin	5E-02	--	3E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-03	--	1E-02	2E-02
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Nickel	N/A	--	--	--	N/A	General Toxicity	4E-04	--	--	4E-04
			Thallium	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Chemical Total	8E-07	--	6E-07	--	1E-06		9E-02	--	4E-02	1E-01
Radionuclide Total													
Exposure Point Total												1E-01	
Exposure Medium Total												1E-01	
Medium Total												1E-01	
Receptor Total												1E-01	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

1E-01

Total Skin HI = 8E-02
 Total Nervous System HI = 1E-02
 Total Immune System HI = 7E-05
 Total Kidney HI = 4E-02
 Total Blood HI = 6E-03
 Total General Toxicity HI = 6E-04
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 5E-04
 Total Cardiovascular HI = 3E-04
 Total Developmental HI = N/A

TABLE 3-9.63.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	5E-03	5E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	7E-03	7E-03
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	1E-02	1E-02
			Radionuclide Total										
		Exposure Point Total					N/A					1E-02	
		Exposure Medium Total					N/A					1E-02	
		Medium Total					N/A					1E-02	
		Receptor Total					N/A					1E-02	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

N/A

Total Hazard Across All Media

1E-02

Total Skin HI =	N/A
Total Nervous System HI =	7E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.63.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station 06 (Reach 4)	Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	N/A	--	N/A		--	--	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						N/A					2E-03
	Exposure Medium Total							N/A					2E-03
Medium Total								N/A					2E-03
Receptor Total								N/A					2E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

N/A

Total Hazard Across All Media

2E-03

Total Skin HI =	N/A
Total Nervous System HI =	1E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	8E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.64.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	--	N/A	--	N/A	Liver
			Tetrachloroethene	--	--	9E-07	--	9E-07	Liver	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	9E-04	9E-04
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A					
			Chemical Total	--	--	9E-07	--	9E-07		--	--	6E-03	6E-03
			Radionuclide Total										
		Exposure Point Total						9E-07					6E-03
	Exposure Medium Total							9E-07					6E-03
Medium Total								9E-07					6E-03
Sediment	Sediment	Station 05	Benzo(a)anthracene	3E-07	--	2E-07	--	5E-07	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	3E-06	--	3E-06	--	6E-06	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	4E-07	--	3E-07	--	7E-07	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-c,d)pyrene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	2E-04	--	1E-04	3E-04
			Antimony	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03
			Arsenic	3E-06	--	1E-06	--	5E-06	Skin	6E-02	--	2E-02	8E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	9E-04	--	--	9E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-03	--	5E-03	7E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Copper	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Nickel	N/A	--	--	--	N/A	General Toxicity	8E-04	--	--	8E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-02	--	--	3E-02
			Zinc	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Chemical Total	7E-06	--	5E-06	--	1E-05		2E-01	--	3E-02	2E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					2E-01
	Exposure Medium Total							1E-05					2E-01
Medium Total								1E-05					2E-01
Receptor Total								1E-05					2E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

2E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to

1E-05

Total Skin HI =

8E-02

Total Nervous System HI =

4E-02

Total Immune System HI =

N/A

Total Kidney HI =

4E-02

Total Blood HI =

3E-02

Total General Toxicity HI =

1E-03

Total Liver HI =

7E-04

Total Gastrointestinal System HI =

9E-04

Total Cardiovascular HI =

9E-04

Total Developmental HI =

N/A

TABLE 3-9.64.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE 03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 05 (Reach 5)	Chloroform	--	--	N/A	--	N/A	Liver	--	--	1E-05	1E-05
			Tetrachloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-04	2E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-04	2E-04
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	8E-04	8E-04
			Manganese	--	--	N/A	--	N/A		--	--	8E-04	8E-04
			Chemical Total	--	--	6E-08	--	6E-08		--	--	1E-03	1E-03
			Radionuclide Total										
Exposure Point Total					6E-08						1E-03		
Exposure Medium Total					6E-08						1E-03		
Medium Total					6E-08						1E-03		
Sediment	Sediment	Station 05	Benzo(a)anthracene	3E-09	--	5E-09	--	8E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	2E-08	--	4E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-09	--	4E-09	--	6E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-10	--	3E-10	--	5E-10	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	8E-06	--	1E-05	2E-05
			Antimony	N/A	--	--	--	N/A	Blood	6E-04	--	--	6E-04
			Arsenic	6E-08	--	4E-08	--	1E-07	Skin	3E-03	--	2E-03	6E-03
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-05	--	2E-04	3E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	5E-06	--	--	5E-06
			Copper	N/A	--	--	--	N/A	Kidney	2E-04	--	--	2E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-04	--	--	2E-04
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Thallium	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-03	--	--	4E-03
			Zinc	N/A	--	--	--	N/A	Blood	1E-04	--	--	1E-04
			Chemical Total	9E-08	--	9E-08	--	2E-07		1E-02	--	2E-03	1E-02
Radionuclide Total													
Exposure Point Total					2E-07						1E-02		
Exposure Medium Total					2E-07						1E-02		
Medium Total					2E-07						1E-02		
Receptor Total					2E-07						2E-02		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 2E-07

Total Hazard Across All Media 2E-02

Using the MADEP slope factor for PCE, the risk for this receptor would change to 2E-07

Total Skin HI = 6E-03
 Total Nervous System HI = 2E-03
 Total Immune System HI = N/A
 Total Kidney HI = 5E-03
 Total Blood HI = 2E-03
 Total General Toxicity HI = 1E-04
 Total Liver HI = 2E-04
 Total Gastrointestinal System HI = 2E-04
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = N/A

TABLE 3-9.65.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	--	7E-08	--	7E-08	Skin	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-03
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	5E-03
			Mercury	--	--	N/A	--	N/A			--	--	1E-04
			Chemical Total	--	--	7E-08	--	7E-08		--	--	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total					7E-08					9E-03	
	Exposure Medium Total						7E-08					9E-03	
Medium Total							7E-08					9E-03	
Receptor Total							7E-08					9E-03	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-08

Total Hazard Across All Media

9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.65.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 04 (Upper Reach 6)	Arsenic	--	--	3E-09	--	3E-09	Skin	--	--	8E-05	8E-05
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	3E-04
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	5E-04
			Mercury	--	--	N/A	--	N/A			--	--	2E-05
			Chemical Total	--	--	3E-09	--	3E-09		--	--	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total										3E-09	9E-04
		Exposure Medium Total										3E-09	9E-04
Medium Total												3E-09	9E-04
Receptor Total												3E-09	9E-04

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-09

Total Hazard Across All Media

9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.66.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	--	7E-08	--	7E-08	Skin	--	--	7E-04	7E-04	
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	4E-03	4E-03	
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03	
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04	
			Mercury	--	--	N/A	--	N/A						
			Chemical Total	--	--	7E-08	--	7E-08		--	--	9E-03	9E-03	
			Radionuclide Total											
		Exposure Point Total										7E-08	9E-03	
		Exposure Medium Total											7E-08	9E-03
Medium Total													7E-08	9E-03
Sediment	Sediment	Station 03	Benzo(a)anthracene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A	
			Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	N/A	N/A	--	N/A	N/A	
			Benzo(b)fluoranthene	2E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A	
			Benzo(k)fluoranthene	8E-09	--	7E-09	--	1E-08	N/A	N/A	--	N/A	N/A	
			Dibenz(a,h)anthracene	1E-07	--	1E-07	--	3E-07	N/A	N/A	--	N/A	N/A	
			Indeno(1,2,3-cd)pyrene	8E-08	--	6E-08	--	1E-07	N/A	N/A	--	N/A	N/A	
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	7E-05	--	5E-05	1E-04	
			Aroclor 1260	4E-08	--	3E-08	--	7E-08	Immune System	8E-03	--	6E-03	1E-02	
			Antimony	N/A	--	--	--	N/A	Blood	6E-03	--	--	6E-03	
			Arsenic	1E-05	--	4E-06	--	2E-05	Skin	2E-01	--	7E-02	3E-01	
			Barium	N/A	--	--	--	N/A	Cardiovascular	2E-03	--	--	2E-03	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	2E-02	2E-02	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04	
			Copper	N/A	--	--	--	N/A	Kidney	8E-03	--	--	8E-03	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02	
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02	
			Nickel	N/A	--	--	--	N/A	General Toxicity	2E-03	--	--	2E-03	
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-02	--	--	7E-02	
			Zinc	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03	
Chemical Total	1E-05	--	6E-06	--	2E-05		3E-01	--	9E-02	4E-01				
Radionuclide Total														
		Exposure Point Total										2E-05	4E-01	
		Exposure Medium Total											2E-05	4E-01
Medium Total													2E-05	4E-01
Receptor Total													2E-05	4E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-05

Total Hazard Across All Media

4E-01

Total Skin HI = 3E-01
 Total Nervous System HI = 2E-02
 Total Immune System HI = 1E-02
 Total Kidney HI = 1E-01
 Total Blood HI = 1E-02
 Total General Toxicity HI = 2E-03
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 4E-03
 Total Cardiovascular HI = 2E-03
 Total Developmental HI = N/A

TABLE 3-9.66.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 03 (Upper Reach 6)	Arsenic	--	--	3E-09	--	3E-09	Skin	--	--	8E-05	8E-05
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	3E-04
			Lead	--	--	N/A	--	N/A	Nervous System		--	--	5E-04
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	2E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	3E-09	--	3E-09		--	--	9E-04	9E-04
			Radionuclide Total										
			Exposure Point Total					3E-09					9E-04
			Exposure Medium Total					3E-09					9E-04
			Medium Total					3E-09					9E-04
Sediment	Sediment	Station 03	Benzo(a)anthracene	4E-09	--	6E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	3E-08	--	5E-08	--	8E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	4E-09	--	7E-09	--	1E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	2E-10	--	4E-10	--	6E-10	N/A	N/A	--	N/A	N/A
			Dibenzo(a,h)anthracene	7E-09	--	1E-08	--	2E-08	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-09	--	4E-09	--	6E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	6E-06	--	8E-06	1E-05
			Aroclor 1260	5E-10	--	8E-10	--	1E-09	Immune System	6E-04	--	9E-04	2E-03
			Antimony	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Arsenic	2E-07	--	2E-07	--	4E-07	Skin	1E-02	--	9E-03	2E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	1E-04	--	--	1E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-04	--	2E-03	2E-03
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-05	--	--	1E-05
			Copper	N/A	--	--	--	N/A	Kidney	5E-04	--	--	5E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-04	--	--	7E-04
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-04	--	--	6E-04
			Nickel	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Zinc	N/A	--	--	--	N/A	Blood	4E-04	--	--	4E-04
Chemical Total	3E-07	--	3E-07	--	5E-07		2E-02	--	1E-02	3E-02			
Radionuclide Total													
Exposure Point Total					5E-07					3E-02			
Exposure Medium Total					5E-07					3E-02			
Medium Total					5E-07					3E-02			
Receptor Total					5E-07					4E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

5E-07

Total Hazard Across All Media

4E-02

Total Skin HI = 2E-02
 Total Nervous System HI = 2E-03
 Total Immune System HI = 2E-03
 Total Kidney HI = 8E-03
 Total Blood HI = 9E-04
 Total General Toxicity HI = 2E-04
 Total Liver HI = N/A
 Total Gastrointestinal System HI = 3E-04
 Total Cardiovascular HI = 1E-04
 Total Developmental HI = N/A

TABLE 3-9.67.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	--	7E-08	--	7E-08	Skin	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	4E-03
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	5E-03
			Mercury	--	--	N/A	--	N/A			--	--	1E-04
			Chemical Total	--	--	7E-08	--	7E-08		--	--	9E-03	9E-03
			Radionuclide Total										
		Exposure Point Total					7E-08					9E-03	
		Exposure Medium Total					7E-08					9E-03	
Medium Total							7E-08					9E-03	
Receptor Total							7E-08					9E-03	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-08

Total Hazard Across All Media

9E-03

Total Skin HI =	7E-04
Total Nervous System HI =	5E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	4E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.67.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 02 (Upper Reach 6)	Arsenic	--	--	3E-09	--	3E-09	Skin	--	--	8E-05	8E-05
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	3E-04
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	5E-04
			Mercury	--	--	N/A	--	N/A			--	--	2E-05
			Chemical Total	--	--	3E-09	--	3E-09		--	--	9E-04	9E-04
			Radionuclide Total										
		Exposure Point Total										3E-09	9E-04
		Exposure Medium Total										3E-09	9E-04
Medium Total												3E-09	9E-04
Receptor Total												3E-09	9E-04

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-09

Total Hazard Across All Media

9E-04

Total Skin HI =	8E-05
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-04
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.68.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	3E-07	--	6E-08	--	3E-07	Skin	4E-03	--	5E-04	4E-03
			Chromium VI	N/A	--	N/A	--	N/A	Gastrointestinal System	2E-04	--	2E-03	2E-03
			Lead	N/A	--	N/A	--	N/A	Nervous System	4E-04	--	1E-03	2E-03
			Manganese	N/A	--	N/A	--	N/A	Immune System	5E-05	--	9E-05	1E-04
			Mercury	N/A	--	N/A	--	N/A					
			Chemical Total	3E-07	--	6E-08	--	3E-07		4E-03	--	4E-03	8E-03
			Radionuclide Total										
			Exposure Point Total					3E-07					8E-03
			Exposure Medium Total					3E-07					8E-03
			Medium Total					3E-07					8E-03
Sediment	Sediment	Station 01	Benzo(a)anthracene	3E-08	--	3E-08	--	6E-08	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	3E-07	--	2E-07	--	5E-07	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	2E-08	--	2E-08	--	4E-08	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	3E-09	--	2E-09	--	5E-09	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	2E-08	--	1E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	3E-05	--	2E-05	6E-05
			Antimony	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Arsenic	8E-07	--	3E-07	--	1E-06	Skin	1E-02	--	5E-03	2E-02
			Barium	N/A	--	--	--	N/A	Cardiovascular	3E-04	--	--	3E-04
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-04	--	5E-04	8E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	9E-06	--	--	9E-06
			Copper	N/A	--	--	--	N/A	Kidney	8E-04	--	--	8E-04
			Lead	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03
			Manganese	N/A	--	--	--	N/A	General Toxicity	5E-04	--	--	5E-04
			Nickel	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Thallium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Blood	7E-04	--	--	7E-04
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	1E-06	--	6E-07	--	2E-06		5E-02	--	5E-03	5E-02
			Radionuclide Total										
Exposure Point Total					2E-06					5E-02			
Exposure Medium Total					2E-06					5E-02			
Medium Total					2E-06					5E-02			
Receptor Total					2E-06					6E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

6E-02

Total Skin HI =	2E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	1E-04
Total Kidney HI =	2E-02
Total Blood HI =	1E-02
Total General Toxicity HI =	6E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	3E-04
Total Developmental HI =	N/A

TABLE 3-9.68.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Station 01 (Sandy Beach)	Arsenic	5E-09	--	1E-09	--	7E-09	Skin	2E-04	--	3E-05	3E-04
			Chromium VI	N/A	--	N/A	--	N/A		Gastrointestinal System	1E-05	--	1E-04
			Lead	N/A	--	N/A	--	N/A	Nervous System		2E-05	--	8E-05
			Manganese	N/A	--	N/A	--	N/A		Immune System	3E-06	--	6E-06
			Mercury	N/A	--	N/A	--	N/A					
			Chemical Total	5E-09	--	1E-09	--	7E-09		3E-04	--	2E-04	5E-04
			Radionuclide Total										
			Exposure Point Total					7E-09					5E-04
			Exposure Medium Total					7E-09					5E-04
			Medium Total					7E-09					5E-04
Sediment	Sediment	Station 01	Benzo(a)anthracene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Benzo(a)pyrene	1E-08	--	2E-08	--	3E-08	N/A	N/A	--	N/A	N/A
			Benzo(b)fluoranthene	1E-09	--	2E-09	--	3E-09	N/A	N/A	--	N/A	N/A
			Benzo(k)fluoranthene	1E-10	--	2E-10	--	3E-10	N/A	N/A	--	N/A	N/A
			Indeno(1,2,3-cd)pyrene	8E-10	--	1E-09	--	2E-09	N/A	N/A	--	N/A	N/A
			Phenanthrene	N/A	--	N/A	--	N/A	General Toxicity	6E-06	--	8E-06	1E-05
			Antimony	N/A	--	--	--	N/A	Blood	5E-04	--	--	5E-04
			Arsenic	4E-08	--	3E-08	--	8E-08	Skin	2E-03	--	2E-03	4E-03
			Barium	N/A	--	--	--	N/A	Cardiovascular	4E-05	--	--	4E-05
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-05	--	2E-04	2E-04
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-06	--	--	1E-06
			Copper	N/A	--	--	--	N/A	Kidney	9E-05	--	--	9E-05
			Lead	N/A	--	--	--	N/A	Nervous System	3E-04	--	--	3E-04
			Manganese	N/A	--	--	--	N/A	General Toxicity	8E-05	--	--	8E-05
			Nickel	N/A	--	--	--	N/A	Blood	2E-03	--	--	2E-03
			Thallium	N/A	--	--	--	N/A	Kidney	2E-03	--	--	2E-03
			Vanadium	N/A	--	--	--	N/A	Blood	8E-05	--	--	8E-05
			Zinc	N/A	--	--	--	N/A					
			Chemical Total	6E-08	--	6E-08	--	1E-07		7E-03	--	2E-03	9E-03
			Radionuclide Total										
Exposure Point Total					1E-07					9E-03			
Exposure Medium Total					1E-07					9E-03			
Medium Total					1E-07					9E-03			
Receptor Total					1E-07					1E-02			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-07

Total Hazard Across All Media

1E-02

Total Skin HI =	4E-03
Total Nervous System HI =	4E-04
Total Immune System HI =	9E-06
Total Kidney HI =	3E-03
Total Blood HI =	2E-03
Total General Toxicity HI =	9E-05
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-04
Total Cardiovascular HI =	4E-05
Total Developmental HI =	N/A

TABLE 3-9.69.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 3	4,4'-DDD	7E-08	--	--	--	7E-08	Immune System
			4,4'-DDE	2E-07	--	--	--	2E-07	Developmental	6E-03	--	--	6E-03
			4,4'-DDT	4E-08	--	--	--	4E-08	Liver	6E-04	--	--	6E-04
			Aldrin	2E-07	--	--	--	2E-07	Liver	1E-03	--	--	1E-03
			alpha-Chlordane	8E-08	--	--	--	8E-08	Liver	1E-03	--	--	1E-03
			Aroclor-1254	2E-06	--	--	--	2E-06	Immune System	1E-01	--	--	1E-01
			Aroclor-1260	5E-06	--	--	--	5E-06	Immune System	3E-01	--	--	3E-01
			delta-BHC	N/A	--	--	--	N/A	Liver/Kidney	2E-04	--	--	2E-04
			Dieldrin	1E-06	--	--	--	1E-06	Liver	5E-03	--	--	5E-03
			Heptachlor epoxide	3E-07	--	--	--	3E-07	Liver	7E-03	--	--	7E-03
			Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-01	--	--	4E-01
			Selenium	N/A	--	--	--	N/A	Liver	1E-02	--	--	1E-02
			Chemical Total	9E-06	--	--	--	9E-06		9E-01	--	--	9E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					9E-01
	Exposure Medium Total							9E-06					9E-01
Medium Total								9E-06					9E-01
Receptor Total								9E-06					9E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

9E-01

Total Skin HI =	N/A
Total Nervous System HI =	4E-01
Total Immune System HI =	4E-01
Total Kidney HI =	2E-04
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	6E-03

TABLE 3-9.69.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 3	4,4'-DDD	8E-09	--	--	--	8E-09	Immune System
			4,4'-DDE	3E-08	--	--	--	3E-08	Developmental	2E-03	--	--	2E-03
			4,4'-DDT	5E-09	--	--	--	5E-09	Liver	2E-04	--	--	2E-04
			Aldrin	3E-08	--	--	--	3E-08	Liver	4E-04	--	--	4E-04
			alpha-Chlordane	1E-08	--	--	--	1E-08	Liver	5E-04	--	--	5E-04
			Aroclor-1254	1E-07	--	--	--	1E-07	Immune System	4E-02	--	--	4E-02
			Aroclor-1260	3E-07	--	--	--	3E-07	Immune System	1E-01	--	--	1E-01
			delta-BHC	N/A	--	--	--	N/A	Liver/Kidney	7E-05	--	--	7E-05
			Dieldrin	2E-07	--	--	--	2E-07	Liver	2E-03	--	--	2E-03
			Heptachlor epoxide	4E-08	--	--	--	4E-08	Liver	3E-03	--	--	3E-03
			Antimony	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-01	--	--	1E-01
			Selenium	N/A	--	--	--	N/A	Liver	5E-03	--	--	5E-03
			Chemical Total	7E-07	--	--	--	7E-07		3E-01	--	--	3E-01
			Radionuclide Total										
		Exposure Point Total						7E-07					3E-01
	Exposure Medium Total							7E-07					3E-01
Medium Total								7E-07					3E-01
Receptor Total								7E-07					3E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-07

Total Hazard Across All Media

3E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	2E-01
Total Kidney HI =	7E-05
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	1E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-03

TABLE 3-9.70.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reaches 4 and 5	4,4'-DDD	2E-08	--	--	--	2E-08	Immune System
			4,4'-DDE	1E-07	--	--	--	1E-07	Developmental	1E-02	--	--	1E-02
			4,4'-DDT	1E-08	--	--	--	1E-08	Liver	7E-04	--	--	7E-04
			Aldrin	4E-08	--	--	--	4E-08	Liver	7E-04	--	--	7E-04
			alpha-Chlordane	4E-09	--	--	--	4E-09	Liver	2E-04	--	--	2E-04
			Aroclor-1254	4E-07	--	--	--	4E-07	Immune System	2E-01	--	--	2E-01
			Aroclor-1260	9E-07	--	--	--	9E-07	Immune System	4E-01	--	--	4E-01
			Dieldrin	1E-07	--	--	--	1E-07	Liver	1E-03	--	--	1E-03
			Antimony	N/A	--	--	--	N/A	Blood	8E-03	--	--	8E-03
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-01	--	--	1E-01
			Selenium	N/A	--	--	--	N/A	Liver	5E-03	--	--	5E-03
			Chemical Total	2E-06	--	--	--	2E-06		7E-01	--	--	7E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					7E-01
	Exposure Medium Total							2E-06					7E-01
Medium Total								2E-06					7E-01
Receptor Total								2E-06					7E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

7E-01

Total Skin HI =	N/A
Total Nervous System HI =	1E-01
Total Immune System HI =	6E-01
Total Kidney HI =	N/A
Total Blood HI =	8E-03
Total General Toxicity HI =	N/A
Total Liver HI =	8E-03
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	1E-02

TABLE 3-9.71.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE U03

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 6	4,4'-DDD	2E-07	--	--	--	2E-07	Immune System
			4,4'-DDE	8E-07	--	--	--	8E-07	Developmental	2E-02	--	--	2E-02
			4,4'-DDT	7E-08	--	--	--	7E-08	Liver	1E-03	--	--	1E-03
			Aldrin	4E-07	--	--	--	4E-07	Liver	2E-03	--	--	2E-03
			alpha-Chlordane	1E-07	--	--	--	1E-07	Liver	2E-03	--	--	2E-03
			Aroclor-1248	6E-07	--	--	--	6E-07	Immune System	4E-02	--	--	4E-02
			Aroclor-1254	1E-05	--	--	--	1E-05	Immune System	7E-01	--	--	7E-01
			Aroclor-1260	6E-06	--	--	--	6E-06	Immune System	4E-01	--	--	4E-01
			Dieldrin	2E-06	--	--	--	2E-06	Liver	5E-03	--	--	5E-03
			Heptachlor epoxide	2E-07	--	--	--	2E-07	Liver	4E-03	--	--	4E-03
			Arsenic	1E-05	--	--	--	1E-05	Skin	5E-02	--	--	5E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-01	--	--	2E-01
			Selenium	N/A	--	--	--	N/A	Liver	1E-02	--	--	1E-02
			Chemical Total	3E-05	--	--	--	3E-05		1E+00	--	--	1E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					1E+00
	Exposure Medium Total							3E-05					1E+00
Medium Total								3E-05					1E+00
Receptor Total								3E-05					1E+00

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

1E+00

Total Skin HI =	5E-02
Total Nervous System HI =	2E-01
Total Immune System HI =	1E+00
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	3E-02
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	2E-02

TABLE 3-9.71.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Older Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Older Child + Adult					Non-Carcinogenic Hazard Quotient Older Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Fish Fillet Tissue	Reach 6	4,4'-DDD	2E-08	--	--	--	2E-08	Immune System
			4,4'-DDE	9E-08	--	--	--	9E-08	Developmental	8E-03	--	--	8E-03
			4,4'-DDT	8E-09	--	--	--	8E-09	Liver	4E-04	--	--	4E-04
			Aldrin	4E-08	--	--	--	4E-08	Liver	7E-04	--	--	7E-04
			alpha-Chlordane	1E-08	--	--	--	1E-08	Liver	7E-04	--	--	7E-04
			Aroclor-1248	4E-08	--	--	--	4E-08	Immune System	2E-02	--	--	2E-02
			Aroclor-1254	6E-07	--	--	--	6E-07	Immune System	3E-01	--	--	3E-01
			Aroclor-1260	4E-07	--	--	--	4E-07	Immune System	2E-01	--	--	2E-01
			Dieldrin	2E-07	--	--	--	2E-07	Liver	2E-03	--	--	2E-03
			Heptachlor epoxide	2E-08	--	--	--	2E-08	Liver	2E-03	--	--	2E-03
			Arsenic	1E-06	--	--	--	1E-06	Skin	2E-02	--	--	2E-02
			Lead										
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-02	--	--	6E-02
			Selenium	N/A	--	--	--	N/A	Liver	5E-03	--	--	5E-03
			Chemical Total	2E-06	--	--	--	2E-06		5E-01	--	--	5E-01
			Radionuclide Total										
		Exposure Point Total						2E-06					5E-01
	Exposure Medium Total							2E-06					5E-01
Medium Total								2E-06					5E-01
Receptor Total								2E-06					5E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

5E-01

Total Skin HI = 2E-02
Total Nervous System HI = 6E-02
Total Immune System HI = 4E-01
Total Kidney HI = N/A
Total Blood HI = N/A
Total General Toxicity HI = N/A
Total Liver HI = 1E-02
Total Gastrointestinal System HI = N/A
Total Cardiovascular HI = N/A
Total Developmental HI = 8E-03

TABLE 3-9.72.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OUB

Scenario Timeframe: Current/Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	AJRW (Reach 5)	Chloroform	--	--	N/A	--	N/A	Liver	--	--	5E-05	5E-05
			Tetrachloroethene	--	--	9E-07	--	9E-07	Liver	--	--	7E-04	7E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	9E-04	9E-04
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Chemical Total	--	--	9E-07	--	9E-07		--	--	6E-03	6E-03
			Radionuclide Total										
			Exposure Point Total					9E-07					
Exposure Medium Total					9E-07						6E-03		
Medium Total					9E-07						6E-03		
Sediment	Sediment	AJRW	Arsenic	3E-06	--	9E-07	--	3E-06	Skin	5E-02	--	2E-02	6E-02
			Lead	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A					
			Chemical Total	3E-06	--	9E-07	--	3E-06		6E-02	--	2E-02	8E-02
			Radionuclide Total										
			Exposure Point Total					3E-06					
Exposure Medium Total					3E-06						8E-02		
Medium Total					3E-06						8E-02		
Soil	Surface Soil	AJRW	Arsenic	2E-05	--	3E-06	--	2E-05	Skin	3E-01	--	5E-02	4E-01
			Chromium III	N/A	--	--	--	N/A	General Toxicity	5E-05	--	--	5E-05
			Lead	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	9E-03	--	--	9E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	7E-02	--	--	7E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	7E-02	--	--	7E-02
			Chemical Total	2E-05	--	3E-06	--	2E-05		4E-01	--	5E-02	5E-01
Radionuclide Total													
Exposure Point Total					2E-05						5E-01		
Exposure Medium Total					2E-05						5E-01		
Medium Total					2E-05						5E-01		
Receptor Total					3E-05						5E-01		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

5E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to

2E-05

Total Skin HI = 4E-01
 Total Nervous System HI = 3E-02
 Total Immune System HI = N/A
 Total Kidney HI = 7E-02
 Total Blood HI = N/A
 Total General Toxicity HI = 5E-05
 Total Liver HI = N/A
 Total Gastrointestinal System HI = N/A
 Total Cardiovascular HI = N/A
 Total Developmental HI = N/A

TABLE 3-9.72.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OUB

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Surface Water	AJRW (Reach 5)	Chloroform	--	--	N/A	--	N/A	Liver	--	--	1E-05	1E-05	
			Tetrachloroethene	--	--	6E-08	--	6E-08	Liver	--	--	2E-04	2E-04	
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	2E-04	2E-04	
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	8E-04	8E-04	
			Chemical Total	--	--	6E-08	--	6E-08		--	--	1E-03	1E-03	
			Radionuclide Total											
			Exposure Point Total					6E-08						1E-03
Exposure Medium Total												6E-08	1E-03	
Medium Total												6E-08	1E-03	
Sediment	Sediment	AJRW	Arsenic	1E-07	--	1E-07	--	2E-07	Skin	8E-03	--	5E-03	1E-02	
			Lead	N/A	--	--	--	N/A	Nervous System	8E-04	--	--	8E-04	
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03	
			Mercury	N/A	--	--	--	N/A						
			Chemical Total	1E-07	--	1E-07	--	2E-07		1E-02	--	5E-03	2E-02	
			Radionuclide Total											
Exposure Point Total												2E-07	2E-02	
Exposure Medium Total												2E-07	2E-02	
Medium Total												2E-07	2E-02	
Soil	Surface Soil	AJRW	Arsenic	9E-07	--	4E-07	--	1E-06	Skin	5E-02	--	2E-02	7E-02	
			Chromium III	N/A	--	--	--	N/A	General Toxicity	8E-06	--	--	8E-06	
			Lead	N/A	--	--	--	N/A	Nervous System	1E-03	--	--	1E-03	
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-03	--	--	2E-03	
			Mercury	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02	
			Vanadium	N/A	--	--	--	N/A						
			Chemical Total	9E-07	--	4E-07	--	1E-06		7E-02	--	2E-02	9E-02	
			Radionuclide Total											
Exposure Point Total												1E-06	9E-02	
Exposure Medium Total												1E-06	9E-02	
Medium Total												1E-06	9E-02	
Receptor Total												2E-06	1E-01	

-- = Not Evaluated
NA = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

1E-01

Using the MADEP slope factor for PCE, the risk for this receptor would change to

2E-06

Total Skin HI = 8E-02
Total Nervous System HI = 5E-03
Total Immune System HI = N/A
Total Kidney HI = 1E-02
Total Blood HI = N/A
Total General Toxicity HI = 8E-06
Total Liver HI = N/A
Total Gastrointestinal System HI = N/A
Total Cardiovascular HI = N/A
Total Developmental HI = N/A

TABLE 3-9.73.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Chemical Total	--	--	1E-07	--	1E-07		--	--	8E-03	8E-03
			Radionuclide Total										
			Exposure Point Total					1E-07					
Exposure Medium Total						1E-07						8E-03	
Medium Total						1E-07						8E-03	
Receptor Total						1E-07						8E-03	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-07

Total Hazard Across All Media

8E-03

Total Skin HI =	1E-03
Total Nervous System HI =	3E-03
Total Immune System HI =	4E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.73.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-05 - 26 days	Arsenic	--	--	2E-08	--	2E-08	Skin	--	--	5E-04	5E-04	
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A			Nervous System	--	--	2E-03
			Mercury	--	--	N/A	--	N/A		Immune System		--	--	2E-05
			Chemical Total	--	--	2E-08	--	2E-08			--	--	4E-03	4E-03
			Radionuclide Total											
		Exposure Point Total										2E-08	4E-03	
		Exposure Medium Total										2E-08	4E-03	
Medium Total												2E-08	4E-03	
Receptor Total												2E-08	4E-03	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-08

Total Hazard Across All Media

4E-03

Total Skin HI =	5E-04
Total Nervous System HI =	2E-03
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.74.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 52 days	Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	7E-03	7E-03
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	6E-03	6E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	8E-05	8E-05
			Chemical Total	--	--	2E-07	--	2E-07		--	--	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total					2E-07					2E-02	
	Exposure Medium Total						2E-07					2E-02	
Medium Total							2E-07					2E-02	
Receptor Total							2E-07					2E-02	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-07

Total Hazard Across All Media

2E-02

Total Skin HI =	2E-03
Total Nervous System HI =	6E-03
Total Immune System HI =	8E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.75.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 78 days	Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	9E-03	9E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	1E-04	1E-04
			Chemical Total	--	--	3E-07	--	3E-07		--	--	2E-02	2E-02
			Radionuclide Total										
		Exposure Point Total					3E-07					2E-02	
	Exposure Medium Total						3E-07					2E-02	
Medium Total							3E-07					2E-02	
Receptor Total							3E-07					2E-02	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-07

Total Hazard Across All Media

2E-02

Total Skin HI =	3E-03
Total Nervous System HI =	9E-03
Total Immune System HI =	1E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.75.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-05 - 78 days	Arsenic	--	--	5E-08	--	5E-08	Skin	--	--	2E-03	2E-03	
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	5E-03	5E-03
			Manganese	--	--	N/A	--	N/A			Nervous System	--	--	5E-03
			Mercury	--	--	N/A	--	N/A		Immune System		--	--	6E-05
			Chemical Total	--	--	5E-08	--	5E-08			--	--	1E-02	1E-02
			Radionuclide Total											
		Exposure Point Total					5E-08					1E-02		
		Exposure Medium Total					5E-08					1E-02		
Medium Total							5E-08					1E-02		
Receptor Total							5E-08					1E-02		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

5E-08

Total Hazard Across All Media

1E-02

Total Skin HI =	2E-03
Total Nervous System HI =	5E-03
Total Immune System HI =	6E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.76.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Baseflow Surface Water	SW-05 - 104 days	Arsenic	--	--	4E-07	--	4E-07	Skin	--	--	4E-03	4E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-02	1E-02
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Chemical Total	--	--	4E-07	--	4E-07		--	--	3E-02	3E-02
			Radionuclide Total										
		Exposure Point Total					4E-07					3E-02	
		Exposure Medium Total					4E-07					3E-02	
Medium Total							4E-07					3E-02	
Receptor Total							4E-07					3E-02	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-07

Total Hazard Across All Media

3E-02

Total Skin HI =	4E-03
Total Nervous System HI =	1E-02
Total Immune System HI =	2E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.77.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-06 - 26 days	Arsenic	--	--	7E-08	--	7E-08	Skin	--	--	6E-04	6E-04	
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	2E-03	2E-03
			Manganese	--	--	N/A	--	N/A			Nervous System	--	--	3E-03
			Chemical Total	--	--	7E-08	--	7E-08		--		--	6E-03	6E-03
			Radionuclide Total											
			Exposure Point Total					7E-08						6E-03
	Exposure Medium Total				7E-08						6E-03			
Medium Total					7E-08						6E-03			
Receptor Total					7E-08						6E-03			

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

7E-08

Total Hazard Across All Media

6E-03

Total Skin HI =	6E-04
Total Nervous System HI =	3E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.77.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Baseflow Surface Water	SW-06 - 26 days	Arsenic	--	--	1E-08	--	1E-08	Skin
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Chemical Total	--	--	1E-08	--	1E-08		--	--	3E-03	3E-03
			Radionuclide Total										
		Exposure Point Total						1E-08					3E-03
	Exposure Medium Total							1E-08					3E-03
Medium Total								1E-08					3E-03
Receptor Total								1E-08					3E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-08

Total Hazard Across All Media

3E-03

Total Skin HI =	3E-04
Total Nervous System HI =	1E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.78.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW05 - 78 days	Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03	
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	7E-03	7E-03
			Manganese	--	--	N/A	--	N/A			Nervous System	--	--	8E-03
			Chemical Total	--	--	2E-07	--	2E-07		--		--	2E-02	2E-02
			Radionuclide Total											
			Exposure Point Total					2E-07						2E-02
Exposure Medium Total						2E-07						2E-02		
Medium Total						2E-07						2E-02		
Receptor Total						2E-07						2E-02		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-07

Total Hazard Across All Media

2E-02

Total Skin HI =	2E-03
Total Nervous System HI =	8E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.78.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Baseflow Surface Water	SW05 - 78 days	Arsenic	--	--	3E-08	--	3E-08	Skin
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03
			Chemical Total	--	--	3E-08	--	3E-08		--	--	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total						3E-08					8E-03
	Exposure Medium Total							3E-08					8E-03
Medium Total								3E-08					8E-03
Receptor Total								3E-08					8E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-08

Total Hazard Across All Media

8E-03

Total Skin HI =	1E-03
Total Nervous System HI =	4E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.79.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-06 - 104 days	Arsenic	--	--	3E-07	--	3E-07	Skin	--	--	3E-03	3E-03	
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	9E-03	9E-03
			Manganese	--	--	N/A	--	N/A			Nervous System	--	--	1E-02
			Chemical Total	--	--	3E-07	--	3E-07		--		--	2E-02	2E-02
			Radionuclide Total											
					Exposure Point Total									
		Exposure Medium Total										3E-07	2E-02	
Medium Total												3E-07	2E-02	
Receptor Total												3E-07	2E-02	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-07

Total Hazard Across All Media

2E-02

Total Skin HI =	3E-03
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	9E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.80.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-07 - 26 days	Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	3E-04	3E-04	
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	2E-03	2E-03	
			Chemical Total	--	--	3E-08	--	3E-08		--	--	2E-03	2E-03	
			Radionuclide Total											
			Exposure Point Total					3E-08						2E-03
	Exposure Medium Total					3E-08						2E-03		
Medium Total							3E-08					2E-03		
Receptor Total							3E-08					2E-03		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 3E-08

Total Hazard Across All Media 2E-03

Total Skin HI =	3E-04
Total Nervous System HI =	2E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.80.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Baseflow Surface Water	SW-07 - 26 days	Arsenic	--	--	5E-09	--	5E-09	Skin
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Chemical Total	--	--	5E-09	--	5E-09		--	--	1E-03	1E-03
			Radionuclide Total										
		Exposure Point Total						5E-09					1E-03
	Exposure Medium Total							5E-09					1E-03
Medium Total								5E-09					1E-03
Receptor Total								5E-09					1E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 5E-09

Total Hazard Across All Media 1E-03

- Total Skin HI = 1E-04
- Total Nervous System HI = 1E-03
- Total Immune System HI = N/A
- Total Kidney HI = N/A
- Total Blood HI = N/A
- Total General Toxicity HI = N/A
- Total Liver HI = N/A
- Total Gastrointestinal System HI = N/A
- Total Cardiovascular HI = N/A
- Total Developmental HI = N/A

TABLE 3-9.81.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-07 - 78 days	Arsenic	--	--	9E-08	--	9E-08	Skin	--	--	9E-04	9E-04	
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	6E-03	6E-03	
			Chemical Total	--	--	9E-08	--	9E-08		--	--	7E-03	7E-03	
			Radionuclide Total											
			Exposure Point Total				9E-08							7E-03
	Exposure Medium Total					9E-08						7E-03		
Medium Total							9E-08					7E-03		
Receptor Total							9E-08					7E-03		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media 9E-08

Total Hazard Across All Media 7E-03

- Total Skin HI = 9E-04
- Total Nervous System HI = 6E-03
- Total Immune System HI = N/A
- Total Kidney HI = N/A
- Total Blood HI = N/A
- Total General Toxicity HI = N/A
- Total Liver HI = N/A
- Total Gastrointestinal System HI = N/A
- Total Cardiovascular HI = N/A
- Total Developmental HI = N/A

TABLE 3-9.82.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-08 - 78 days	Arsenic	--	--	6E-08	--	6E-08	Skin	--	--	6E-04	6E-04	
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	4E-03	4E-03	
			Chemical Total	--	--	6E-08	--	6E-08		--	--	5E-03	5E-03	
			Radionuclide Total											
			Exposure Point Total					6E-08						5E-03
	Exposure Medium Total					6E-08						5E-03		
Medium Total							6E-08					5E-03		
Receptor Total							6E-08					5E-03		

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

6E-08

Total Hazard Across All Media

5E-03

Total Skin HI =	6E-04
Total Nervous System HI =	4E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.82.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Baseflow Surface Water	SW-08 - 26 days	Arsenic	--	--	3E-09	--	3E-09	Skin
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	7E-04	7E-04
			Chemical Total	--	--	3E-09	--	3E-09		--	--	8E-04	8E-04
			Radionuclide Total										
		Exposure Point Total						3E-09					8E-04
	Exposure Medium Total							3E-09					8E-04
Medium Total								3E-09					8E-04
Receptor Total								3E-09					8E-04

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-09

Total Hazard Across All Media

8E-04

Total Skin HI =	1E-04
Total Nervous System HI =	7E-04
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.83.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient								
				Young Child + Adult					Young Child								
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total				
Surface Water	Baseflow Surface Water	SW-09 - 78 days	Arsenic	--	--	4E-08	--	4E-08	Skin	--	--	4E-04	4E-04				
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	8E-04	8E-04				
			Chemical Total	--	--	4E-08	--	4E-08		--	--	1E-03	1E-03				
			Radionuclide Total														
			Exposure Point Total					4E-08						1E-03			
	Exposure Medium Total					4E-08						1E-03					
Medium Total													4E-08			1E-03	
Receptor Total														4E-08			1E-03

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

4E-08

Total Hazard Across All Media

1E-03

Total Skin HI =	4E-04
Total Nervous System HI =	8E-04
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.83.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Baseflow Surface Water	SW-09 - 26 days	Arsenic	--	--	2E-09	--	2E-09	Skin
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-04	1E-04
			Chemical Total	--	--	2E-09	--	2E-09		--	--	2E-04	2E-04
			Radionuclide Total										
		Exposure Point Total						2E-09					2E-04
	Exposure Medium Total							2E-09					2E-04
Medium Total								2E-09					2E-04
Receptor Total								2E-09					2E-04

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-09

Total Hazard Across All Media

2E-04

Total Skin HI =	6E-05
Total Nervous System HI =	1E-04
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.84.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Baseflow Surface Water	SW-10 - 39 days	Arsenic	2E-07	--	4E-08	--	2E-07	Skin	2E-03	--	3E-04	2E-03	
			Mercury	N/A	--	N/A	--	N/A	Immune System	3E-04	--	5E-04	7E-04	
			Chemical Total	2E-07	--	4E-08	--	2E-07		2E-03	--	8E-04	3E-03	
			Radionuclide Total											
			Exposure Point Total					2E-07						3E-03
	Exposure Medium Total					2E-07						3E-03		
Medium Total							2E-07					3E-03		
Receptor Total							2E-07					3E-03		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 2E-07

Total Hazard Across All Media 3E-03

Total Skin HI =	2E-03
Total Nervous System HI =	N/A
Total Immune System HI =	7E-04
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.84.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Baseflow Surface Water	SW-10 - 5 days	Arsenic	3E-09	--	7E-10	--	4E-09	Skin
			Mercury	N/A	--	N/A	--	N/A	Immune System	2E-05	--	3E-05	5E-05
			Chemical Total	3E-09	--	7E-10	--	4E-09		2E-04	--	5E-05	2E-04
			Radionuclide Total										
		Exposure Point Total						4E-09					2E-04
	Exposure Medium Total							4E-09					2E-04
Medium Total								4E-09					2E-04
Receptor Total								4E-09					2E-04

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-09

Total Hazard Across All Media

2E-04

Total Skin HI =	2E-04
Total Nervous System HI =	N/A
Total Immune System HI =	5E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.85.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-05	Antimony	--	--	N/A	--	N/A	Blood	--	--	1E-03	1E-03
			Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	6E-03	6E-03
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	9E-05	9E-05
			Chemical Total	--	--	1E-07	--	1E-07		--	--	1E-02	1E-02
			Radionuclide Total										
Exposure Point Total												1E-02	
Exposure Medium Total												1E-02	
Medium Total												1E-02	
Receptor Total												1E-02	

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

1E-07

Total Hazard Across All Media

1E-02

Total Skin HI =	1E-03
Total Nervous System HI =	3E-03
Total Immune System HI =	9E-05
Total Kidney HI =	N/A
Total Blood HI =	1E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	6E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.85.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-05	Antimony	--	--	N/A	--	N/A	Blood	--	--	2E-04	2E-04
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	3E-04	3E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	8E-04	8E-04
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	2E-05	2E-05
			Chemical Total	--	--	1E-08	--	1E-08		--	--	3E-03	3E-03
			Radionuclide Total										
Exposure Point Total												1E-08	3E-03
Exposure Medium Total												1E-08	3E-03
Medium Total												1E-08	3E-03
Receptor Total												1E-08	3E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-08

Total Hazard Across All Media

3E-03

Total Skin HI =	3E-04
Total Nervous System HI =	8E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	2E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.86.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-06	Antimony	--	--	N/A	--	N/A	Blood	--	--	1E-03	1E-03
			Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-02	1E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	3E-03	3E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Chemical Total	--	--	2E-07	--	2E-07		--	--	2E-02	2E-02
			Radionuclide Total										
Exposure Point Total								2E-02					
Exposure Medium Total								2E-02					
Medium Total								2E-02					
Receptor Total								2E-02					

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-07

Total Hazard Across All Media

2E-02

Total Skin HI =	2E-03
Total Nervous System HI =	3E-03
Total Immune System HI =	2E-04
Total Kidney HI =	N/A
Total Blood HI =	1E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.86.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-06	Antimony	--	--	N/A	--	N/A	Blood	--	--	3E-04	3E-04
			Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	4E-04	4E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-03	3E-03
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	8E-04	8E-04
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	2E-05	2E-05
			Chemical Total	--	--	1E-08	--	1E-08		--	--	4E-03	4E-03
			Radionuclide Total										
Exposure Point Total												1E-08	4E-03
Exposure Medium Total												1E-08	4E-03
Medium Total												1E-08	4E-03
Receptor Total												1E-08	4E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-08

Total Hazard Across All Media

4E-03

Total Skin HI =	4E-04
Total Nervous System HI =	8E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	3E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.87.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-07	Arsenic	--	--	1E-07	--	1E-07	Skin	--	--	1E-03	1E-03
			Chromium VI	--	--	N/A	--	N/A		Gastrointestinal System	--	--	5E-03
			Lead						Nervous System				
			Manganese	--	--	N/A	--	N/A		Immune System	--	--	2E-03
			Mercury	--	--	N/A	--	N/A			--	--	8E-05
			Chemical Total	--	--	1E-07	--	1E-07		--	--	8E-03	8E-03
			Radionuclide Total										
		Exposure Point Total										1E-07	8E-03
	Exposure Medium Total											1E-07	8E-03
Medium Total												1E-07	8E-03
Receptor Total												1E-07	8E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-07

Total Hazard Across All Media

8E-03

Total Skin HI =	1E-03
Total Nervous System HI =	2E-03
Total Immune System HI =	8E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	5E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.87.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Storm Event Surface Water	SW-07	Arsenic	--	--	8E-09	--	8E-09	Skin
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	1E-03	1E-03
			Lead	--	--	N/A	--	N/A	Nervous System	--	--	5E-04	5E-04
			Manganese	--	--	N/A	--	N/A	Immune System	--	--	2E-05	2E-05
			Mercury	--	--	N/A	--	N/A					
			Chemical Total	--	--	8E-09	--	8E-09		--	--	2E-03	2E-03
			Radionuclide Total										
		Exposure Point Total						8E-09					2E-03
	Exposure Medium Total							8E-09					2E-03
Medium Total								8E-09					2E-03
Receptor Total								8E-09					2E-03

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

8E-09

Total Hazard Across All Media

2E-03

Total Skin HI =	2E-04
Total Nervous System HI =	5E-04
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.88.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-08	Antimony	--	--	N/A	--	N/A	Blood	--	--	5E-04	5E-04
			Arsenic	--	--	2E-07	--	2E-07	Skin	--	--	2E-03	2E-03
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	3E-02	3E-02
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	5E-03	5E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	2E-04	2E-04
			Thallium	--	--	N/A	--	N/A	Blood	--	--	5E-04	5E-04
			Chemical Total	--	--	2E-07	--	2E-07		--	--	4E-02	4E-02
			Radionuclide Total										
		Exposure Point Total									2E-07	4E-02	
		Exposure Medium Total									2E-07	4E-02	
Medium Total											2E-07	4E-02	
Receptor Total											2E-07	4E-02	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-07

Total Hazard Across All Media

4E-02

Total Skin HI =	2E-03
Total Nervous System HI =	5E-03
Total Immune System HI =	2E-04
Total Kidney HI =	N/A
Total Blood HI =	1E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.88.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Storm Event Surface Water	SW-08	Antimony	--	--	N/A	--	N/A	Blood	--	--	1E-04	1E-04
			Arsenic	--	--	2E-08	--	2E-08	Skin	--	--	5E-04	5E-04
			Chromium VI	--	--	N/A	--	N/A	Gastrointestinal System	--	--	7E-03	7E-03
			Lead										
			Manganese	--	--	N/A	--	N/A	Nervous System	--	--	1E-03	1E-03
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	4E-05	4E-05
			Thallium	--	--	N/A	--	N/A	Blood	--	--	1E-04	1E-04
			Chemical Total	--	--	2E-08	--	2E-08		--	--	9E-03	9E-03
			Radionuclide Total										
			Exposure Point Total					2E-08					9E-03
Exposure Medium Total					2E-08					9E-03			
Medium Total					2E-08					9E-03			
Receptor Total					2E-08					9E-03			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

2E-08

Total Hazard Across All Media

9E-03

Total Skin HI =	5E-04
Total Nervous System HI =	1E-03
Total Immune System HI =	4E-05
Total Kidney HI =	N/A
Total Blood HI =	3E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	7E-03
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.89.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Storm Event Surface Water	SW-09	Antimony	--	--	N/A	--	N/A	Blood	--	--	6E-04	6E-04	
			Arsenic	--	--	3E-08	--	3E-08	Skin	--	--	3E-04	3E-04	
			Chemical Total	--	--	3E-08	--	3E-08		--	--	9E-04	9E-04	
			Radionuclide Total											
			Exposure Point Total					3E-08						9E-04
	Exposure Medium Total					3E-08						9E-04		
Medium Total								3E-08					9E-04	
Receptor Total								3E-08					9E-04	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 3E-08

Total Hazard Across All Media 9E-04

Total Skin HI =	3E-04
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	6E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.89.CT
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 CENTRAL TENDENCY
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Storm Event Surface Water	SW-09	Antimony	--	--	N/A	--	N/A	Blood
			Arsenic	--	--	2E-09	--	2E-09	Skin	--	--	7E-05	7E-05
			Chemical Total	--	--	2E-09	--	2E-09		--	--	2E-04	2E-04
			Radionuclide Total										
		Exposure Point Total						2E-09					2E-04
	Exposure Medium Total							2E-09					2E-04
Medium Total								2E-09					2E-04
Receptor Total								2E-09					2E-04

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-09

Total Hazard Across All Media

2E-04

Total Skin HI =	7E-05
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	2E-04
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.90.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Surface Water	Storm Event Surface Water	SW-10	Arsenic	--	--	1E-08	--	1E-08	Skin	--	--	1E-04	1E-04	
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	8E-05	8E-05	
			Chemical Total	--	--	1E-08	--	1E-08		--	--	2E-04	2E-04	
			Radionuclide Total											
			Exposure Point Total					1E-08						2E-04
Exposure Medium Total						1E-08						2E-04		
Medium Total						1E-08						2E-04		
Receptor Total						1E-08						2E-04		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-08

Total Hazard Across All Media

2E-04

Total Skin HI =	1E-04
Total Nervous System HI =	N/A
Total Immune System HI =	8E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.90.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Surface Water	Storm Event Surface Water	SW-10	Arsenic	--	--	1E-09	--	1E-09	Skin
			Mercury	--	--	N/A	--	N/A	Immune System	--	--	2E-05	2E-05
			Chemical Total	--	--	1E-09	--	1E-09		--	--	5E-05	5E-05
			Radionuclide Total										
		Exposure Point Total						1E-09					5E-05
	Exposure Medium Total							1E-09					5E-05
Medium Total								1E-09					5E-05
Receptor Total								1E-09					5E-05

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-09

Total Hazard Across All Media

5E-05

Total Skin HI =	4E-05
Total Nervous System HI =	N/A
Total Immune System HI =	2E-05
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.91.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC05	Antimony	N/A	--	--	--	N/A	Blood	4E-02	--	--	4E-02
			Arsenic	3E-05	--	5E-06	--	3E-05	Skin	2E+00	--	4E-01	2E+00
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-02	--	4E-02	7E-02
			Copper	N/A	--	--	--	N/A	Kidney	7E-02	--	--	7E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-01	--	--	3E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	8E-02	--	--	8E-02
			Chemical Total	3E-05	--	5E-06	--	3E-05		3E+00	--	4E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						3E-05					
		Exposure Medium Total						3E-05					
Medium Total							3E-05						
Receptor Total							3E-05						

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-05

Total Hazard Across All Media

3E+00

Total Skin HI =	2E+00
Total Nervous System HI =	3E-01
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	4E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.91.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC05	Antimony	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Arsenic	4E-06	--	7E-07	--	5E-06	Skin	6E-01	--	1E-01	7E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	2E-02	3E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-01	--	--	2E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Chemical Total	4E-06	--	7E-07	--	5E-06		8E-01	--	1E-01	1E+00
			Radionuclide Total										
Exposure Point Total						5E-06					1E+00		
Exposure Medium Total						5E-06					1E+00		
Medium Total						5E-06					1E+00		
Receptor Total						5E-06					1E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

5E-06

Total Hazard Across All Media

1E+00

Total Skin HI =	7E-01
Total Nervous System HI =	2E-01
Total Immune System HI =	N/A
Total Kidney HI =	9E-02
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.92.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC06	Arsenic	5E-05	--	9E-06	--	6E-05	Skin	4E+00	--	7E-01	4E+00
			Cadmium	N/A	--	N/A	--	N/A	Kidney	6E-02	--	7E-02	1E-01
			Copper	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	8E-02	--	--	8E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Chemical Total	5E-05	--	9E-06	--	6E-05		4E+00	--	8E-01	5E+00
			Radionuclide Total										
		Exposure Point Total						6E-05					
		Exposure Medium Total						6E-05					
Medium Total							6E-05						
Receptor Total							6E-05						

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

6E-05

Total Hazard Across All Media

5E+00

Total Skin HI =	4E+00
Total Nervous System HI =	1E-01
Total Immune System HI =	N/A
Total Kidney HI =	3E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.92.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment Cores	SC06	Arsenic	6E-06	--	1E-06	--	7E-06	Skin	9E-01	--	2E-01	1E+00	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-02	--	4E-02	7E-02	
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02	
			Lead											
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02	
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02	
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02	
			Zinc	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03	
			Chemical Total	6E-06	--	1E-06	--	7E-06		1E+00	--	2E-01	1E+00	
			Radionuclide Total											
		Exposure Point Total						7E-06						
		Exposure Medium Total						7E-06						
Medium Total							7E-06							
Receptor Total							7E-06							

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-06

Total Hazard Across All Media

1E+00

Total Skin HI =	1E+00
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	9E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.93.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC07	Arsenic	1E-05	--	2E-06	--	1E-05	Skin	9E-01	--	2E-01	1E+00
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-02	--	4E-02	7E-02
			Copper	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-02	--	--	2E-02
			Chemical Total	1E-05	--	2E-06	--	1E-05		1E+00	--	2E-01	1E+00
			Radionuclide Total										
		Exposure Point Total						1E-05					
		Exposure Medium Total						1E-05					
Medium Total							1E-05						
Receptor Total							1E-05						

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

1E+00

Total Skin HI =	1E+00
Total Nervous System HI =	9E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	2E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.93.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC07	Arsenic	3E-06	--	6E-07	--	3E-06	Skin	4E-01	--	9E-02	5E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	2E-02	3E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	4E-02	--	--	4E-02
			Zinc	N/A	--	--	--	N/A	Blood	9E-03	--	--	9E-03
			Chemical Total	3E-06	--	6E-07	--	3E-06		6E-01	--	1E-01	7E-01
			Radionuclide Total										
		Exposure Point Total										7E-01	
		Exposure Medium Total										7E-01	
		Medium Total										7E-01	
		Receptor Total										7E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

7E-01

Total Skin HI =	5E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	9E-02
Total Blood HI =	9E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.94.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC08	Arsenic	4E-05	--	7E-06	--	4E-05	Skin	3E+00	--	5E-01	3E+00
			Cadmium	N/A	--	N/A	--	N/A	Kidney	3E-02	--	4E-02	7E-02
			Copper	N/A	--	--	--	N/A	Kidney	6E-02	--	--	6E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-01	--	--	2E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02
			Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Chemical Total	4E-05	--	7E-06	--	4E-05		3E+00	--	6E-01	4E+00
			Radionuclide Total										
		Exposure Point Total						4E-05					
		Exposure Medium Total						4E-05					
Medium Total							4E-05						
Receptor Total							4E-05						

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-05

Total Hazard Across All Media

4E+00

Total Skin HI =	3E+00
Total Nervous System HI =	2E-01
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.94.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC08	Arsenic	3E-06	--	5E-07	--	3E-06	Skin	4E-01	--	8E-02	5E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	6E-03	1E-02
			Copper	N/A	--	--	--	N/A	Kidney	8E-03	--	--	8E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	5E-03	--	--	5E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Zinc	N/A	--	--	--	N/A	Blood	5E-03	--	--	5E-03
			Chemical Total	3E-06	--	5E-07	--	3E-06		4E-01	--	8E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						3E-06					
		Exposure Medium Total						3E-06					
Medium Total							3E-06						
Receptor Total							3E-06						

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

3E-06

Total Hazard Across All Media

5E-01

Total Skin HI =	5E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	3E-02
Total Blood HI =	5E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.95.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment Cores	SC09	Arsenic	3E-06	--	5E-07	--	3E-06	Skin	2E-01	--	4E-02	2E-01	
			Mercury	N/A	--	--	--	N/A		Nervous System	2E-02	--	--	2E-02
			Chemical Total	3E-06	--	5E-07	--	3E-06		2E-01	--	4E-02	3E-01	
			Radionuclide Total											
			Exposure Point Total					3E-06						3E-01
Exposure Medium Total						3E-06						3E-01		
Medium Total						3E-06						3E-01		
Receptor Total						3E-06						3E-01		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 3E-06

Total Hazard Across All Media 3E-01

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.95.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment Cores	SC09	Arsenic	3E-07	--	7E-08	--	4E-07	Skin	5E-02	--	1E-02	6E-02	
			Mercury	N/A	--	--	--	N/A		Nervous System	4E-03	--	--	4E-03
			Chemical Total	3E-07	--	7E-08	--	4E-07		6E-02	--	1E-02	7E-02	
			Radionuclide Total											
			Exposure Point Total					4E-07						7E-02
Exposure Medium Total						4E-07						7E-02		
Medium Total						4E-07						7E-02		
Receptor Total						4E-07						7E-02		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-07

Total Hazard Across All Media

7E-02

Total Skin HI =	6E-02
Total Nervous System HI =	4E-03
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.96.RME
 SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Sediment	Sediment Cores	SC10	Arsenic	2E-06	--	3E-07	--	2E-06	Skin	1E-01	--	3E-02	2E-01		
			Chemical Total	2E-06	--	3E-07	--	2E-06		1E-01	--	3E-02	2E-01		
			Radionuclide Total												
			Exposure Point Total							2E-06					
Exposure Medium Total									2E-06						2E-01
Medium Total									2E-06						2E-01
Receptor Total									2E-06						2E-01

-- = Not Evaluated
 N/A = Not Applicable

Total Risk Across All Media

2E-06

Total Hazard Across All Media

2E-01

Total Skin HI =	2E-01
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.96.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient						
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total		
Sediment	Sediment Cores	SC10	Arsenic	4E-07	--	8E-08	--	5E-07	Skin	6E-02	--	1E-02	8E-02		
			Chemical Total	4E-07	--	8E-08	--	5E-07		6E-02	--	1E-02	8E-02		
			Radionuclide Total												
			Exposure Point Total					5E-07						8E-02	
	Exposure Medium Total					5E-07					8E-02				
Medium Total												5E-07			8E-02
Receptor Total												5E-07			8E-02

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media 5E-07

Total Hazard Across All Media 8E-02

Total Skin HI =	8E-02
Total Nervous System HI =	N/A
Total Immune System HI =	N/A
Total Kidney HI =	N/A
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.97.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC11	Arsenic	3E-06	--	6E-07	--	4E-06	Skin	2E-01	--	5E-02	3E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	9E-03	--	1E-02	2E-02
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02
			Chemical Total	3E-06	--	6E-07	--	4E-06		4E-01	--	6E-02	5E-01
			Radionuclide Total										
			Exposure Point Total					4E-06					5E-01
Exposure Medium Total					4E-06					5E-01			
Medium Total					4E-06					5E-01			
Receptor Total					4E-06					5E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-06

Total Hazard Across All Media

5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.97.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC11	Arsenic	7E-07	--	1E-07	--	9E-07	Skin	1E-01	--	2E-02	1E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	5E-03	9E-03
			Copper	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Chemical Total	7E-07	--	1E-07	--	9E-07		2E-01	--	3E-02	2E-01
			Radionuclide Total										
			Exposure Point Total					9E-07					2E-01
Exposure Medium Total					9E-07					2E-01			
Medium Total					9E-07					2E-01			
Receptor Total					9E-07					2E-01			

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

9E-07

Total Hazard Across All Media

2E-01

Total Skin HI =	1E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	6E-02
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.98.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC12	Arsenic	4E-06	--	7E-07	--	4E-06	Skin	3E-01	--	6E-02	3E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-02	--	2E-02	3E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Chemical Total	4E-06	--	7E-07	--	4E-06		5E-01	--	8E-02	6E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					
		Exposure Medium Total						4E-06					
		Medium Total						4E-06					
		Receptor Total						4E-06					

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-06

Total Hazard Across All Media

6E-01

Total Skin HI =	3E-01
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.98.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC12	Arsenic	8E-07	--	2E-07	--	1E-06	Skin	1E-01	--	2E-02	1E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	7E-03	--	9E-03	2E-02
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	8E-03	--	--	8E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Chemical Total	8E-07	--	2E-07	--	1E-06		2E-01	--	3E-02	3E-01
			Radionuclide Total										
Exposure Point Total							1E-06	3E-01					
Exposure Medium Total							1E-06	3E-01					
Medium Total							1E-06	3E-01					
Receptor Total							1E-06	3E-01					

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

3E-01

Total Skin HI =	1E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	8E-02
Total Blood HI =	N/A
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.99.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC13	Arsenic	3E-06	--	7E-07	--	4E-06	Skin	3E-01	--	5E-02	3E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	2E-02	--	2E-02	4E-02
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	7E-03	--	--	7E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	1E-02	--	--	1E-02
			Chemical Total	3E-06	--	7E-07	--	4E-06		4E-01	--	7E-02	5E-01
			Radionuclide Total										
		Exposure Point Total						4E-06					
		Exposure Medium Total						4E-06					
Medium Total							4E-06						
Receptor Total							4E-06						

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

4E-06

Total Hazard Across All Media

5E-01

Total Skin HI =	3E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	1E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.99.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment Cores	SC13	Arsenic	8E-07	--	2E-07	--	1E-06	Skin	1E-01	--	3E-02	2E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	8E-03	--	1E-02	2E-02
			Copper	N/A	--	--	--	N/A	Kidney	7E-03	--	--	7E-03
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-03	--	--	3E-03
			Mercury	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	5E-02	--	--	5E-02
			Zinc	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Chemical Total	8E-07	--	2E-07	--	1E-06		2E-01	--	4E-02	2E-01
			Radionuclide Total										
		Exposure Point Total										2E-01	
		Exposure Medium Total										2E-01	
		Medium Total										2E-01	
		Receptor Total										2E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-06

Total Hazard Across All Media

2E-01

Total Skin HI =	2E-01
Total Nervous System HI =	1E-02
Total Immune System HI =	N/A
Total Kidney HI =	8E-02
Total Blood HI =	4E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.100.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station 07/DP	Arsenic	4E-05	--	4E-06	--	5E-05	Skin	8E-01	--	7E-02	9E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	1E-03	2E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	3E-01	--	--	3E-01
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	5E-02	--	--	5E-02
			Thallium	N/A	--	--	--	N/A	Blood	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-01	--	--	2E-01
			Zinc	N/A	--	--	--	N/A	Blood	3E-01	--	--	3E-01
			Chemical Total	4E-05	--	4E-06	--	5E-05		2E+00	--	7E-02	2E+00
Radionuclide Total													
Exposure Point Total						5E-05					2E+00		
Exposure Medium Total						5E-05					2E+00		
Medium Total						5E-05					2E+00		
Receptor Total						5E-05					2E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

5E-05

Total Hazard Across All Media

2E+00

Total Skin HI =	9E-01
Total Nervous System HI =	8E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	5E-01
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.100.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station 07/DP	Arsenic	7E-06	--	1E-06	--	9E-06	Skin	4E-01	--	7E-02	5E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	5E-04	--	1E-03	2E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-01	--	--	1E-01
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Thallium	N/A	--	--	--	N/A	Blood	6E-02	--	--	6E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	9E-02	--	--	9E-02
			Zinc	N/A	--	--	--	N/A	Blood	2E-01	--	--	2E-01
			Chemical Total	7E-06	--	1E-06	--	9E-06		9E-01	--	7E-02	1E+00
Radionuclide Total													
		Exposure Point Total						9E-06					
		Exposure Medium Total						9E-06					
		Medium Total						9E-06					
		Receptor Total						9E-06					

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

1E+00

Total Skin HI =	5E-01
Total Nervous System HI =	4E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	2E-01
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.101.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Soil	Surface Soil	Station KF	Arsenic	5E-05	--	4E-06	--	5E-05	Skin	8E-01	--	7E-02	9E-01	
			Cadmium	N/A	--	N/A	--	N/A	Kidney	8E-03	--	9E-03	2E-02	
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	2E-01	--	--	2E-01	
			Copper	N/A	--	--	--	N/A	Kidney	2E-02	--	--	2E-02	
			Manganese	N/A	--	--	--	N/A	Nervous System	6E-02	--	--	6E-02	
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02	
			Vanadium	N/A	--	--	--	N/A	Kidney	2E-01	--	--	2E-01	
			Zinc	N/A	--	--	--	N/A	Blood	7E-03	--	--	7E-03	
			Chemical Total	5E-05	--	4E-06	--	5E-05		1E+00	--	8E-02	1E+00	
			Radionuclide Total											
		Exposure Point Total						5E-05						1E+00
		Exposure Medium Total						5E-05						1E+00
Medium Total							5E-05						1E+00	
Receptor Total							5E-05						1E+00	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

5E-05

Total Hazard Across All Media

1E+00

Total Skin HI =	9E-01
Total Nervous System HI =	1E-01
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	7E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	2E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.101.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Soil	Surface Soil	Station KF	Arsenic	7E-06	--	1E-06	--	9E-06	Skin
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	9E-03	1E-02
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	1E-01	--	--	1E-01
			Copper	N/A	--	--	--	N/A	Kidney	1E-02	--	--	1E-02
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	8E-02	--	--	8E-02
			Zinc	N/A	--	--	--	N/A	Blood	4E-03	--	--	4E-03
			Chemical Total	7E-06	--	1E-06	--	9E-06		7E-01	--	8E-02	8E-01
			Radionuclide Total										
		Exposure Point Total						9E-06					8E-01
	Exposure Medium Total							9E-06					8E-01
Medium Total								9E-06					8E-01
Receptor Total								9E-06					8E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

9E-06

Total Hazard Across All Media

8E-01

Total Skin HI =	5E-01
Total Nervous System HI =	5E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	4E-03
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	1E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.102.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Young Child + Adult					Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	AJRW	Arsenic	7E-05	--	6E-06	--	7E-05	Skin	1E+00	--	1E-01	1E+00
			Chromium III	N/A	--	--	--	N/A	General Toxicity	2E-04	--	--	2E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	3E-02	--	--	3E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	4E-02	--	--	4E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	3E-01	--	--	3E-01
			Chemical Total	7E-05	--	6E-06	--	7E-05		2E+00	--	1E-01	2E+00
			Radionuclide Total										
		Exposure Point Total				7E-05					2E+00		
	Exposure Medium Total					7E-05					2E+00		
Medium Total						7E-05					2E+00		
Receptor Total						7E-05					2E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-05

Total Hazard Across All Media

2E+00

Total Skin HI =	1E+00
Total Nervous System HI =	6E-02
Total Immune System HI =	N/A
Total Kidney HI =	3E-01
Total Blood HI =	N/A
Total General Toxicity HI =	2E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.102.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Soil	Surface Soil	AJRW	Arsenic	1E-05	--	2E-06	--	1E-05	Skin
			Chromium III	N/A	--	--	--	N/A	General Toxicity	1E-04	--	--	1E-04
			Lead										
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Chemical Total	1E-05	--	2E-06	--	1E-05		8E-01	--	1E-01	9E-01
			Radionuclide Total										
		Exposure Point Total						1E-05					9E-01
	Exposure Medium Total							1E-05					9E-01
Medium Total								1E-05					9E-01
Receptor Total								1E-05					9E-01

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

9E-01

Total Skin HI =	7E-01
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	N/A
Total General Toxicity HI =	1E-04
Total Liver HI =	N/A
Total Gastrointestinal System HI =	N/A
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.103.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Soil	Surface Soil	Station WS/WSS	Arsenic	1E-05	--	1E-06	--	1E-05	Gastrointestinal System	Skin	2E-01	--	2E-02	2E-01
			Cadmium	N/A	--	N/A	--	N/A		Kidney	2E-03	--	2E-03	4E-03
			Chromium VI	N/A	--	--	--	N/A		Kidney	3E-02	--	--	3E-02
			Copper	N/A	--	--	--	N/A		Kidney	6E-03	--	--	6E-03
			Manganese	N/A	--	--	--	N/A		Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A		Nervous System	6E-03	--	--	6E-03
			Thallium	N/A	--	--	--	N/A		Blood	8E-02	--	--	8E-02
			Vanadium	N/A	--	--	--	N/A		Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A		Blood	1E-03	--	--	1E-03
			Chemical Total	1E-05	--	1E-06	--	1E-05				5E-01	--	2E-02
		Radionuclide Total												
		Exposure Point Total					1E-05						5E-01	
	Exposure Medium Total						1E-05						5E-01	
Medium Total							1E-05						5E-01	
Receptor Total							1E-05						5E-01	

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

1E-05

Total Hazard Across All Media

5E-01

Total Skin HI = 2E-01
Total Nervous System HI = 2E-02
Total Immune System HI = N/A
Total Kidney HI = 1E-01
Total Blood HI = 8E-02
Total General Toxicity HI = N/A
Total Liver HI = N/A
Total Gastrointestinal System HI = 3E-02
Total Cardiovascular HI = N/A
Total Developmental HI = N/A

TABLE 3-9.103.CT
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station WS/WSS	Arsenic	7E-06	--	3E-07	--	8E-06	Skin	2E-01	--	2E-02	2E-01
			Cadmium	N/A	--	N/A	--	N/A	Kidney	1E-03	--	1E-03	2E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	3E-02	--	--	3E-02
			Copper	N/A	--	--	--	N/A	Kidney	5E-03	--	--	5E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	1E-02	--	--	1E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	6E-03	--	--	6E-03
			Thallium	N/A	--	--	--	N/A	Blood	8E-02	--	--	8E-02
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	1E-03	--	--	1E-03
			Chemical Total	7E-06	--	3E-07	--	8E-06		5E-01	--	2E-02	5E-01
Radionuclide Total													
		Exposure Point Total						8E-06					
		Exposure Medium Total						8E-06					
		Medium Total						8E-06					
		Receptor Total						8E-06					

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

8E-06

Total Hazard Across All Media

5E-01

Total Skin HI =	2E-01
Total Nervous System HI =	2E-02
Total Immune System HI =	N/A
Total Kidney HI =	1E-01
Total Blood HI =	8E-02
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-02
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-9.104.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future
Receptor Population: Area Resident
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soil	Station CB-05	Arsenic	6E-05	--	6E-06	--	7E-05	Skin	1E+00	--	9E-02	1E+00
			Cadmium	N/A	--	N/A	--	N/A	Kidney	4E-03	--	4E-03	8E-03
			Chromium VI	N/A	--	--	--	N/A	Gastrointestinal System	3E-01	--	--	3E-01
			Copper	N/A	--	--	--	N/A	Kidney	9E-03	--	--	9E-03
			Manganese	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Mercury	N/A	--	--	--	N/A	Nervous System	2E-02	--	--	2E-02
			Thallium	N/A	--	--	--	N/A	Blood	1E-01	--	--	1E-01
			Vanadium	N/A	--	--	--	N/A	Kidney	1E-01	--	--	1E-01
			Zinc	N/A	--	--	--	N/A	Blood	3E-03	--	--	3E-03
			Chemical Total	6E-05	--	6E-06	--	7E-05		2E+00	--	1E-01	2E+00
Radionuclide Total													
Exposure Point Total						7E-05					2E+00		
Exposure Medium Total						7E-05					2E+00		
Medium Total						7E-05					2E+00		
Receptor Total						7E-05					2E+00		

-- = Not Evaluated
N/A = Not Applicable

Total Risk Across All Media

7E-05

Total Hazard Across All Media

2E+00

Total Skin HI =	1E+00
Total Nervous System HI =	3E-02
Total Immune System HI =	N/A
Total Kidney HI =	2E-01
Total Blood HI =	1E-01
Total General Toxicity HI =	N/A
Total Liver HI =	N/A
Total Gastrointestinal System HI =	3E-01
Total Cardiovascular HI =	N/A
Total Developmental HI =	N/A

TABLE 3-10.1.RME
RISK SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Sediment	Sediment	Station WH	Arsenic						Skin
			Chemical Total	--	--	--	--	--		2E+00	--	5E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						--					2E+00
	Exposure Medium Total							--					2E+00
Medium Total								--					2E+00
Receptor Total								--					2E+00

Total Risk Across All Media --

Total Hazard Across All Media 2E+00

Total Skin HI = 2E+00

TABLE 3-10.2.RME
RISK SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Sediment	Sediment	Station CB-03	Arsenic						Skin
			Chemical Total	--	--	--	--	--		2E+00	--	6E-01	3E+00
			Radionuclide Total										
		Exposure Point Total						--					3E+00
	Exposure Medium Total							--					3E+00
Medium Total								--					3E+00
Receptor Total								--					3E+00

Total Risk Across All Media --

Total Hazard Across All Media 3E+00

Total Skin HI = 3E+00

TABLE 3-10.3.RME
RISK SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station 13/TT-27	Benzo(a)pyrene	2E-06	--	1E-06	--	3E-06	Skin	9E+00	--	3E+00	1E+01
			Arsenic	5E-04	--	2E-04	--	7E-04					
			Chemical Total	5E-04	--	2E-04	--	7E-04					
			Radionuclide Total										
			Exposure Point Total				7E-04						
Exposure Medium Total						7E-04							1E+01
Medium Total						7E-04							1E+01
Receptor Total						7E-04							1E+01

Total Risk Across All Media

7E-04

Total Hazard Across All Media

1E+01

Total Skin HI =

1E+01

TABLE 3-10.3.CT
RISK SUMMARY
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station 13/TT-27	Arsenic						Skin	1E+00	--	1E+00	2E+00
			Chemical Total	--	--	--	--	--		1E+00	--	1E+00	2E+00
			Radionuclide Total										
			Exposure Point Total					--					
	Exposure Medium Total					--						2E+00	
Medium Total												--	2E+00
Receptor Total												--	2E+00

Total Risk Across All Media

--

Total Hazard Across All Media

2E+00

Total Skin HI =

2E+00

TABLE 3-10.4.RME
 RISK SUMMARY
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
 Receptor Population: Recreational User
 Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Sediment	Station WH	Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	Skin	5E+00	--	2E+00	6E+00
			Arsenic	3E-04	--	9E-05	--	4E-04					
			Chemical Total	3E-04	--	1E-04	--	4E-04					
			Radionuclide Total										
			Exposure Point Total				4E-04						
	Exposure Medium Total					4E-04						6E+00	
Medium Total								4E-04					6E+00
Receptor Total								4E-04					6E+00

Total Risk Across All Media

4E-04

Total Hazard Across All Media

6E+00

Total Skin HI =

6E+00

TABLE 3-10.5.RME
RISK SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Sediment	Sediment	Station NT-1	Benzo(a)pyrene	1E-06	--	9E-07	--	2E-06	Skin
			Arsenic	3E-04	--	1E-04	--	5E-04					
			Chemical Total	3E-04	--	1E-04	--	5E-04		6E+00	--	2E+00	8E+00
			Radionuclide Total										
		Exposure Point Total						5E-04					8E+00
	Exposure Medium Total							5E-04					8E+00
Medium Total								5E-04					8E+00
Receptor Total								5E-04					8E+00

Total Risk Across All Media

5E-04

Total Hazard Across All Media

8E+00

Total Skin HI =

8E+00

TABLE 3-10.5.CT
RISK SUMMARY
CENTRAL TENDENCY
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Sediment	Sediment	Station NT-1	Arsenic						Skin
			Chemical Total	--	--	--	--	--		1E+00	--	7E-01	2E+00
			Radionuclide Total										
		Exposure Point Total						--					2E+00
	Exposure Medium Total							--					2E+00
Medium Total								--					2E+00
Receptor Total								--					2E+00

Total Risk Across All Media

--

Total Hazard Across All Media

2E+00

Total Skin HI =

2E+00

TABLE 3-10.6.RME
RISK SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
				Sediment	Sediment	Station NT-2	Benzo(a)pyrene	1E-06	--	1E-06	--	2E-06	Skin
			Arsenic	2E-04	--	9E-05	--	3E-04					
			Chemical Total	2E-04	--	9E-05	--	3E-04					
			Radionuclide Total										
		Exposure Point Total						3E-04					
	Exposure Medium Total							3E-04					6E+00
Medium Total								3E-04					6E+00
Receptor Total								3E-04					6E+00

Total Risk Across All Media

3E-04

Total Hazard Across All Media

6E+00

Total Skin HI =

6E+00

TABLE 3-10.7.RME
RISK SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment	Station NT-3	Arsenic						Skin	1E+00	--	4E-01	2E+00	
			Chemical Total	--	--	--	--	--		1E+00	--	4E-01	2E+00	
			Radionuclide Total											
			Exposure Point Total					--					2E+00	
	Exposure Medium Total					--					2E+00			
Medium Total												--	2E+00	
Receptor Total													--	2E+00

Total Risk Across All Media --

Total Hazard Across All Media 2E+00

Total Skin HI = 2E+00

TABLE 3-10.8.RME
RISK SUMMARY
REASONABLE MAXIMUM EXPOSURE
WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Young Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk Young Child + Adult					Non-Carcinogenic Hazard Quotient Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment	Station CB-03	Arsenic						Skin	2E+00	--	6E-01	3E+00	
			Chemical Total	--	--	--	--	--		2E+00	--	6E-01	3E+00	
			Radionuclide Total											
			Exposure Point Total					--						3E+00
	Exposure Medium Total					--						3E+00		
Medium Total												--	3E+00	
Receptor Total												--	3E+00	

Total Risk Across All Media --

Total Hazard Across All Media 3E+00

Total Skin HI = 3E+00

TABLE 3-10.9.RME
 RISK SUMMARY
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment Cores	SC05	Arsenic						Skin	2E+00	--	4E-01	2E+00	
			Chemical Total	--	--	--	--	--		2E+00	--	4E-01	2E+00	
			Radionuclide Total											
			Exposure Point Total					--					2E+00	
	Exposure Medium Total					--					2E+00			
Medium Total												--	2E+00	
Receptor Total													--	2E+00

Total Risk Across All Media --

Total Hazard Across All Media 2E+00

Total Skin HI = 2E+00

TABLE 3-10.10.RME
 RISK SUMMARY
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment Cores	SC06	Arsenic						Skin	4E+00	--	7E-01	4E+00	
			Chemical Total	--	--	--	--	--		4E+00	--	7E-01	4E+00	
			Radionuclide Total											
			Exposure Point Total					--						4E+00
			Exposure Medium Total					--						4E+00
Medium Total						--						4E+00		
Receptor Total							--						4E+00	

Total Risk Across All Media --

Total Hazard Across All Media 4E+00

Total Skin HI = 4E+00

TABLE 3-10.11.RME
 RISK SUMMARY
 REASONABLE MAXIMUM EXPOSURE
 WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Future
Receptor Population: Dredger
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient					
				Young Child + Adult					Young Child					
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total	
Sediment	Sediment Cores	SC08	Arsenic						Skin	3E+00	--	5E-01	3E+00	
			Chemical Total	--	--	--	--	--		3E+00	--	5E-01	3E+00	
			Radionuclide Total											
			Exposure Point Total					--						3E+00
			Exposure Medium Total					--						3E+00
Medium Total					--							3E+00		
Receptor Total					--							3E+00		

Total Risk Across All Media --

Total Hazard Across All Media 3E+00

Total Skin HI = 3E+00