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Table 10.1.RME	Summary of Receptor Risks and Hazards for COPCs, Adult: Reasonable Maximum Exposure Recreational, Onondaga Lake
Table 10.2.RME	Summary of Receptor Risks and Hazards for COPCs, Young Child: Reasonable Maximum Exposure Recreational, Onondaga Lake
Table 10.3.RME	Summary of Receptor Risks and Hazards for COPCs, Older Child: Reasonable Maximum Exposure Recreational, Onondaga Lake
Table 10.4.RME	Summary of Receptor Risks and Hazards for COPCs, Construction Worker: Reasonable Maximum Exposure, Onondaga Lake
Table 10.1.CT	Summary of Receptor Risks and Hazards for COPCs, Adult: Central Tendency Recreational, Onondaga Lake
Table 10.2.CT	Summary of Receptor Risks and Hazards for COPCs, Young Child: Central Tendency Recreational, Onondaga Lake
Table 10.3.CT	Summary of Receptor Risks and Hazards for COPCs, Older Child: Central Tendency Recreational, Onondaga Lake
Table 10.4.CT	Summary of Receptor Risks and Hazards for COPCs, Construction Worker: Central Tendency, Onondaga Lake

Table 1.1
Selection of Exposure Pathways
Onondaga Lake Human Health Risk Assessment

Scenario Time Frame	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis[a]	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future	Soil	Soil	Soil	Resident	Adult	Dermal	On-Site	None	Residential populations not evaluated in the RA due to lack of current residential use and unlikely future development for residential use.
						Ingestion	On-Site	None	
						Inhalation	On-Site	None	No structures currently exist and none are likely to be built in the future; concentrations of VOCs are low; PSA indicates inhalation unlikely. See text (Section 4.2.5) for discussion.
					Child	Dermal	On-Site	None	Residential populations not evaluated in the RA due to lack of current residential use and unlikely future development for residential use.
						Ingestion	On-Site	None	
						Inhalation	On-Site	None	No structures currently exist and none are likely to be built in the future; concentrations of VOCs are low; PSA indicates inhalation unlikely. See text (Section 4.2.5) for discussion.
	Sediment	Sediment	Sediment	Resident	Adult	Dermal	On-Site	None	Residential populations not evaluated in the RA due to lack of current residential use and unlikely future development for residential use.
						Ingestion	On-Site	None	
						Inhalation	On-Site	None	No structures currently exist and none are likely to be built in the future; concentrations of VOCs are low; PSA indicates inhalation unlikely. See text (Section 4.2.5) for discussion.
					Child	Dermal	On-Site	None	Residential populations not evaluated in the RA due to lack of current residential use and unlikely future development for residential use.
						Ingestion	On-Site	None	
						Inhalation	On-Site	None	No structures currently exist and none are likely to be built in the future; concentrations of VOCs are low; PSA indicates inhalation unlikely. See text (Section 4.2.5) for discussion.
	Water	Potable water supply	Tap water	Resident	Adult	Dermal	On-Site	None	Residential populations not evaluated in the RA due to lack of current residential use and unlikely future development for residential use.
						Ingestion	On-Site	None	Groundwater and Onondaga Lake water not used for potable water supply.
						Inhalation	On-Site	None	No structures currently exist and none are likely to be built in the future; concentrations of VOCs are low; PSA indicates inhalation unlikely. See text (Section 4.2.5) for discussion.
					Child	Dermal	On-Site	None	Residential populations not evaluated in the RA due to lack of current residential use and unlikely future development for residential use.
						Ingestion	On-Site	None	Groundwater and Onondaga Lake water not used for potable water supply.
						Inhalation	On-Site	None	No structures currently exist and none are likely to be built in the future; concentrations of VOCs are low; PSA indicates inhalation unlikely. See text (Section 4.2.5) for discussion.
	Edible fish	Fish tissue	Fish tissue[b]	Anglers and fish consumers	Adult	Ingestion	On-Site	Quant	Consumption of contaminants in fish identified as a potential pathway and evaluated in the RA.
					Child	Ingestion	On-Site	Quant	Consumption of contaminants in fish identified as a potential pathway and evaluated in the RA.
				Other (subsistence fisher)	Adult	Ingestion	On-Site	Qual	Because a possible subsistence fishing community does exist near the lake, a subsistence fish diet will be addressed qualitatively.
					Child	Ingestion	On-Site	Qual	Because a possible subsistence fishing community does exist near the lake, a subsistence fish diet will be addressed qualitatively.
	Game (flesh)	Edible waterfowl and turtles	Edible flesh	Hunters	Adult and Child	Ingestion	On-Site	None	Although the hunting of waterfowl on Onondaga Lake is legally permitted under New York State law, the hunting season is significantly shorter than the fishing season. There is a state-wide advisory regarding consumption of waterfowl and snapping turtles. However, the absence of available data on contaminant concentrations in waterfowl and the paucity of data on ingestion rates of waterfowl precluded a quantitative analysis of this pathway. See text (Section 4.2.4) for discussion.

Table 1.1
Selection of Exposure Pathways
Onondaga Lake Human Health Risk Assessment

Scenario Time Frame	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	On-Site/ Off-Site	Type of Analysis[a]	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future	Surface sediments	Surface and near-surface sediments on shoreline and in lake to depth of 2.0 meters	Sediments at 0- to 30-cm depths in lake and wetlands	Recreational Visitor	Adult	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in lake and wetland (surface and near-surface) sediment by visitors and construction workers identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
					Child	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in lake and wetland sediment (surface and near-surface) by visitors identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
				Construction Worker (future only)	Adult	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in lake and wetland (surface and near-surface) sediment by visitors and construction workers identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
	Dredge-spoil soil	Surface soil	Soil at 0- to 3.5-ft depth	Recreational Visitor	Adult	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in dredge-spoil soil by visitors identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
					Child	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in dredge-spoil soil by visitors identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
				Construction Worker (future only)	Adult	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in surface and near-surface dredge-spoil soil by construction workers identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
		Surface soil/ subsurface soil	Soil at 0- to 11.7-ft depth	Construction Worker (future only)	Adult	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in deeper dredge-spoil soil by construction workers identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
	Onondaga Lake – Surface Water	Surface Water	Surface water in lake	Recreational Visitor	Adult	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in lake water by visitors and construction workers identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
					Child	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in lake water by visitors identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	
				Construction Worker (future only)	Adult	Dermal	On-Site	Quant	Dermal contact with, and incidental ingestion of, contaminants in lake water by visitors and construction workers identified as a potential pathway and evaluated in the RA.
						Ingestion	On-Site	Quant	

Notes: See Appendix A for locations of samples used in evaluating potential exposures.

North lake, south lake, and the four wetlands areas are considered separately, due to differences in access and use designation. All ages are assumed to contact lake media (adults and children are evaluated). See text for age discussion.

RA = Risk Assessment.

[a] Quant = Quantitative risk analysis performed. Qual=Qualitative analysis performed. None = Not considered a complete pathway; not evaluated in the RA.

[b] Fish species collected that were considered edible and for which fillets were analyzed include bluegill, smallmouth bass, carp, channel catfish, largemouth bass, northern pike, white perch, and walleye. Consistent with New York's fishing regulations, size was limited to fish of approximately legal size or larger (e.g., 12 inches for smallmouth bass and 15 inches for walleye). Fishing regulations allow "any size" for other species, but individual fish smaller than about 6 inches were excluded, as fish that small are unlikely to be consumed by humans.

Table 2.1
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Fish Tissue
Exposure Medium:	Fish Tissue
Exposure Point:	**Fish fillet tissue from Onondaga Lake**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Screening Toxicity Values: Region III Fish Consumption [a]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics															
7429-90-5	Aluminum	5.30		5.90		mg/kg-ww	5AHB[p]	3/11	4.84-9.3	5.90	140 N			No	BSL
7440-36-0	Antimony	1.80		2.10		mg/kg-ww	SEND	2/11	0.05-2.2	2.10	0.054 N			Yes	ASL
7440-38-2	Arsenic	1.00		1.05		mg/kg-ww	5AHB	2/11	0.14-0.5	1.05	0.0021 C			Yes	ASL
7440-39-3	Barium	0.04		0.78		mg/kg-ww	5AHB	7/11	0.15-0.2	0.78	9.5 N			No	BSL
7440-41-7	Beryllium	0.02		0.03		mg/kg-ww	5AHB	3/11	0.02-0.2	0.03	0.27 N			No	BSL
7440-43-9	Cadmium	-		-		mg/kg-ww	N/A	0/11	0.05-0.2	ND	0.07 N			No	IFD
7440-70-2	Calcium	79.30		24,400	*J*	mg/kg-ww	5AHB	11/11	N/A	24,400	N/A			No	NUT
7440-47-3	Chromium	0.54		0.73		mg/kg-ww	SEND	3/11	0.29-0.99	0.73	0.41 N [b]			Yes	ASL
7440-48-4	Cobalt	0.03		0.2		mg/kg-ww	WF0035F	4/11	0.02-0.4	0.20	2.7 N			No	BSL
7440-50-8	Copper	1.3		3.1		mg/kg-ww	5AHB & MNMC	8/11	0.35-0.71	3.10	5.4 N			No	BSL
74-90-8	Cyanide	1.0		14.30		mg/kg-ww	5AHB	3/11	0.41-0.92	14.30	2.7 N			Yes	ASL
7439-89-6	Iron	11.40		44		mg/kg-ww	5AHB	7/11	6.9-11.1	44	81 N			No	BSL
7439-92-1	Lead	0.02		0.29		mg/kg-ww	SEND	8/11	0.02-0.21	0.29	N/A [c]			No	NTX
7439-95-4	Magnesium	169		1,610		mg/kg-ww	5AHB	11/11	N/A	1,610	N/A			No	NUT
7439-96-5	Manganese	0.18		5.51		mg/kg-ww	5AHB	9/11	0.2-0.25	5.51	3 N			Yes	ASL
7439-97-6	Mercury (as Methylmercury)	0.04		5.07		mg/kg-ww	SO12	728/728	N/A	5.07	0.014 N [d]			Yes	ASL
7440-02-0	Nickel	0.30		1.90		mg/kg-ww	NMNMC	7/11	1.2-1.6	1.90	2.7 N			No	BSL
7440-09-7	Potassium	2,720		17,700		mg/kg-ww	NMNMC	11/11	N/A	17,700	N/A			No	NUT
7782-49-2	Selenium	0.86	*J*	2.20		mg/kg-ww	5AHB	8/11	0.14-0.21	2.20	0.68 N			Yes	ASL
7440-22-4	Silver	-		-		mg/kg-ww	N/A	0/11	0.02-0.4	ND	0.68 N			No	IFD
7440-23-5	Sodium	355		2,980		mg/kg-ww	5AHB	11/11	N/A	2,980	N/A			No	NUT
7440-28-0	Thallium	-		-		mg/kg-ww	N/A	0/11	0.02-0.21	ND	0.010 N			No	IFD
7440-62-2	Vanadium	0.45		0.97		mg/kg-ww	MNMC	7/11	0.29-0.4	0.97	0.95 N			Yes	ASL
7440-66-6	Zinc	16.60		73.80	*J*	mg/kg-ww	5AHB	8/11	5.5-8.4	73.80	41 N			Yes	ASL
VOCs															
67-64-1	Acetone	50	*J*	180	*J*	µg/kg-ww	SEND	4/4	N/A	180	14,000 N			No	BSL
71-43-2	Benzene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	57 C			No	IFD
75-27-4	Bromodichloromethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	51 C			No	IFD
75-25-2	Bromoform	-		-		µg/kg-ww	N/A	0/4	10-10	ND	400 C			No	IFD
74-83-9	Bromomethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	190 N			No	IFD
78-93-3	2-Butanone	6	*J*	8	*J*	µg/kg-ww	SEND	2/4	10-10	8	81,000 N			No	BSL
75-15-0	Carbon disulfide	-		-		µg/kg-ww	N/A	0/4	10-10	ND	14,000 N			No	IFD
56-23-5	Carbon tetrachloride	-		-		µg/kg-ww	N/A	0/4	10-10	ND	24 C			No	IFD
108-90-7	Chlorobenzene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	2,700 N			No	IFD
75-00-3	Chloroethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	1,100 C			No	IFD
67-66-3	Chloroform	-		-		µg/kg-ww	N/A	0/4	10-10	ND	520 C			No	IFD
74-87-3	Chloromethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	240 C			No	IFD
124-48-1	Dibromochloromethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	38 C			No	IFD
75-34-3	1,1-Dichloroethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	14,000 N			No	IFD
107-06-2	1,2-Dichloroethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	35 C			No	IFD
75-35-4	1,1-Dichloroethene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	5.3 C			No	IFD
540-59-0	1,2-Dichloroethene isomers (to	-		-		µg/kg-ww	N/A	0/4	10-10	ND	1,200 N			No	IFD
78-87-5	1,2-Dichloropropane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	46 C			No	IFD
10061-01-5	cis-1,3-Dichloropropene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	32 C [e]			No	IFD
10061-02-6	trans-1,3-Dichloropropene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	32 C [e]			No	IFD

Table 2.1
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

CAS Registry Number		Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Screening Toxicity Values: Region III Fish Consumption[a]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
100-41-4	Ethylbenzene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	14,000 N			No	IFD
591-78-6	2-Hexanone	-		-		µg/kg-ww	N/A	0/4	10-10	ND	5,400 N			No	IFD
108-10-1	4-Methyl-2-pentanone	-		-		µg/kg-ww	N/A	0/4	10-10	ND	11,000 N			No	IFD
75-09-2	Methylene chloride	-		-		µg/kg-ww	N/A	0/0	10-10	ND	420 C			No	IFD
100-42-5	Styrene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	27,000 N			No	IFD
79-34-5	1,1,2,2-Tetrachloroethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	16 C			No	IFD
127-18-4	Tetrachloroethene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	61 C			No	IFD
108-88-3	Toluene	5	*J*	5	*J*	µg/kg-ww	SEND	1/4	10-10	5.0	27,000 N			No	BSL
71-55-6	1,1,1-Trichloroethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	38,000 N			No	IFD
79-00-5	1,1,2-Trichloroethane	-		-		µg/kg-ww	N/A	0/4	10-10	ND	55 C			No	IFD
79-01-6	Trichloroethene	-		-		µg/kg-ww	N/A	0/4	10-10	ND	290 C			No	IFD
75-01-4	Vinyl chloride	-		-		µg/kg-ww	N/A	0/4	10-10	ND	4.4 C			No	IFD
1330-20-7	Xylene isomers (total)	-		-		µg/kg-ww	N/A	0/4	10-10	ND	270,000 N			No	IFD
SVOCs															
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg-ww	N/A	0/4	150-160	ND	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg-ww	N/A	0/4	150-160	ND	2.9 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	2,300		2,300		µg/kg-ww	SEND	1/4	150-430	2,300	230 C			Yes	ASL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg-ww	N/A	0/4	150-160	ND	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg-ww	N/A	0/4	150-160	ND	27,000 N			No	IFD
86-74-8	Carbazole	-		-		µg/kg-ww	N/A	0/4	150-160	ND	160 C			No	IFD
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	N/A			No	IFD
106-47-8	4-Chloroaniline	-		-		µg/kg-ww	N/A	0/4	150-160	ND	540 N			No	IFD
91-58-7	2-Chloronaphthalene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	11,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	680 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg-ww	N/A	0/4	150-160	ND	N/A			No	IFD
132-64-9	Dibenzofuran	-		-		µg/kg-ww	N/A	0/4	150-160	ND	540 N			No	IFD
95-50-1	1,2-Dichlorobenzene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	12,000 N			No	IFD
541-73-1	1,3-Dichlorobenzene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	4,100 N			No	IFD
106-46-7	1,4-Dichlorobenzene	37		58		µg/kg-ww	SEND	3/4	160-160	58	130 C			No	BSL
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg-ww	N/A	0/4	150-160	ND	7.0 C			No	IFD
120-83-2	2,4-Dichlorophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	410 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg-ww	N/A	0/4	150-160	ND	108,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg-ww	N/A	0/4	150-160	ND	1,352,000 N			No	IFD
105-67-9	2,4-Dimethylphenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	2,700 N			No	IFD
84-74-2	Di-n-butyl phthalate	-		-		µg/kg-ww	N/A	0/4	150-160	ND	14,000 N			No	IFD
51-28-5	2,4-Dinitrophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	270 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	270 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	140 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg-ww	N/A	0/4	150-160	ND	2,700 N			No	IFD
118-74-1	Hexachlorobenzene	2		170		µg/kg-ww	Lake	102/134	2 - 160	170	2.0 C			Yes	ASL
87-68-3	Hexachlorobutadiene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	27 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	810 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg-ww	N/A	0/4	150-160	ND	140 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg-ww	N/A	0/4	150-160	ND	3,300 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	140 N			No	IFD
95-48-7	2-Methylphenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	6,800 N			No	IFD
106-44-5	4-Methylphenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	680 N			No	IFD
88-74-4	2-Nitroaniline	-		-		µg/kg-ww	N/A	0/4	390-400	ND	N/A			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg-ww	N/A	0/4	390-400	ND	N/A			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg-ww	N/A	0/4	390-400	ND	N/A			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	68 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	1,100 N			No	IFD

Table 2.1
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

	CAS Registry Number		Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Screening Toxicity Values: Region III Fish Consumption[a]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
	100-02-7	4-Nitrophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	1,100 N			No	IFD
	621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg-ww	N/A	0/4	150-160	ND	0.45 C			No	IFD
	86-30-6	N-nitrosodiphenylamine	-		-		µg/kg-ww	N/A	0/4	150-160	ND	640 C			No	IFD
	108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg-ww	N/A	0/4	150-160	ND	45 C			No	IFD
	87-86-5	Pentachlorophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	26 C			No	IFD
	108-95-2	Phenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	81,000 N			No	IFD
	120-82-1	1,2,4-Trichlorobenzene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	1,400 N			No	IFD
	95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	14,000 N			No	IFD
	88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg-ww	N/A	0/0	N/A	ND	290 C			No	IFD
PAHs																
	83-32-9	Acenaphthene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	8,100 N			No	IFD
	208-96-8	Acenaphthylene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	2,700 N [g]			No	IFD
	120-12-7	Anthracene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	41,000 N			No	IFD
	56-55-3	Benz(a)anthracene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	4.3 C			No	IFD
	50-32-8	Benzo(a)pyrene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	0.43 C			No	IFD
	205-99-2	Benzo(b)fluoranthene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	4.3 C			No	IFD
	191-24-2	Benzo(g,h,i)perylene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	2,700 N [g]			No	IFD
	207-08-9	Benzo(k)fluoranthene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	43 C			No	IFD
	218-01-9	Chrysene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	430 C			No	IFD
	53-70-3	Dibenz(a,h)anthracene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	0.43 C			No	IFD
	206-44-0	Fluoranthene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	5,400 N			No	IFD
	86-73-7	Fluorene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	5,400 N			No	IFD
	193-39-5	Indeno(1,2,3-cd)pyrene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	4.3 C			No	IFD
	91-57-6	2-Methylnaphthalene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	2,700 N [g]			No	IFD
	91-20-3	Naphthalene	61		61		µg/kg-ww	SEND	1/4	150-160	61	2,700 N			No	BSL
	85-01-8	Phenanthrene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	2,700 N [g]			No	IFD
	129-00-0	Pyrene	-		-		µg/kg-ww	N/A	0/4	150-160	ND	4,100 N			No	IFD
Pesticides																
	309-00-2	Aldrin	3		3		µg/kg-ww	Lake	1/49	1 - 10	3	0.19 C			Yes	ASL
	319-84-6	alpha-BHC	-		-		µg/kg-ww	N/A	0/49	1 - 10	ND	0.50 C			No	IFD
	319-85-7	beta-BHC	-		-		µg/kg-ww	N/A	0/49	1 - 10	ND	1.8 C			No	IFD
	319-86-8	delta-BHC	1.7	*J*	2.8	*J*	µg/kg-ww	SEND	3/50	1 - 10	2.8	1.8 C [h]			Yes	ASL
	58-89-9	gamma-BHC (Lindane)	1.5		1.5		µg/kg-ww	Lake	1/49	1 - 10	1.5	2.4 C			No	BSL
	57-74-9	Sum of Chlordanes	1.1		61		µg/kg-ww	SO7	53/124	1 - 10	61	9.0 C			Yes	ASL
	53-19-0	2,4'- DDD	5		5		µg/kg-ww	SO7	2/38	5 - 5	5	13 C [I]			No	BSL
	3424-82-6	2,4'- DDE	5.0		24		µg/kg-ww	SO7	7/38	5 - 10	24	9.3 C [I]			Yes	ASL
	789-02-6	2,4'- DDT	-		-		µg/kg-ww	N/A	0/38	5 - 5	ND	9.3 C [i]			No	IFD
	72-54-8	4,4'-DDD	1.4		170	*J*	µg/kg-ww	SEND	121/134	2 - 9	170	13 C [i]			Yes	ASL
	72-55-9	4,4'-DDE	2		400	*J*	µg/kg-ww	SEND	131/134	2 - 18	400	9.3 C [i]			Yes	ASL
	50-29-3	4,4'-DDT	1.6	*J*	82		µg/kg-ww	SO7	111/134	2 - 7	82	9.3 C [i]			Yes	ASL
	60-57-1	Dieldrin	3.7		42	*J*	µg/kg-ww	Lake	26/134	3.1 - 10	42	0.20 C			Yes	ASL
	959-98-8	Endosulfan I	3.5	*J*	7.5	*J*	µg/kg-ww	SEND	3/49	1 - 10	7.5	810 N			No	BSL
	33213-65-9	Endosulfan II	-		-		µg/kg-ww	N/A	0/39	1 - 10	ND	810 N [J]			No	IFD
	1031-07-8	Endosulfan sulfate	4.2	*J*	4.2	*J*	µg/kg-ww	SEND	1/49	1 - 10	4.2	810 N [J]			No	BSL
	72-20-8	Endrin	1.6		32	*J*	µg/kg-ww	SEND	13/124	5 - 5	32	41 N			No	BSL
	7421-93-4	Endrin aldehyde	-		-		µg/kg-ww	N/A	0/49	1 - 25	ND	41 N [k]			No	IFD
	53494-70-5	Endrin ketone	-		-		µg/kg-ww	N/A	0/11	1 - 10	ND	41 N [k]			No	IFD
	76-44-8	Heptachlor	-		-		µg/kg-ww	N/A	0/49	1 - 10	ND	0.70 C			No	IFD
	1024-57-3	Heptachlor epoxide	4.0	*J*	10		µg/kg-ww	SO7	8/49	1.6 - 20	10	0.35 C			Yes	ASL
	72-43-5	Methoxychlor	-		-		µg/kg-ww	N/A	0/11	1 - 17	ND	680 N			No	IFD
	2385-85-5	Mirex/Photomirex	2		5		µg/kg-ww	SO7	6/226	2 - 5	2	27 N [I]			No	BSL

Table 2.1
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

	CAS Registry Number		Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Screening Toxicity Values: Region III Fish Consumption[a]		Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
	8001-35-2	Toxaphene	-		-		µg/kg-ww	N/A	0/11	50 - 2000	ND	2.9	C			No	IFD
PCBs																	
	12674-11-2	Aroclor 1016	22		1,607		µg/kg-ww	SO12	70/82	10 - 100	1,607	9.0	N			Yes	ASL
	11104-28-2	Aroclor 1221	-		-		µg/kg-ww	N/A	0/7	20 - 200	ND	1.6	C			No	IFD
	11141-16-5	Aroclor 1232	-		-		µg/kg-ww	N/A	0/7	10 - 100	ND	1.6	C			No	IFD
	53469-21-9	Aroclor 1242	44		1,980		µg/kg-ww	SO7	38/45	10 - 100	1,980	1.6	C			Yes	ASL
	12672-29-6	Aroclor 1248	61	*J*	1,100	*J*	µg/kg-ww	MNMC	7/7	N/A	1,100	1.6	C			Yes	ASL
	11097-69-1	Aroclor 1254	-		-		µg/kg-ww	N/A	0/7	10 - 100	ND	1.6	C [o]			No	IFD
	11096-82-5	Aroclor 1260	72	*J*	720	*J*	µg/kg-ww	MNMC	7/7	N/A	720	1.6	C			Yes	ASL
		Aroclors 1254 & 1260	20		1,923		µg/kg-ww	SO7	121/123	20 - 20	1,923	1.6	C [m]			Yes	ASL
		Aroclor 1268	-		-		µg/kg-ww	N/A	0/7	10 - 100	ND	1.6	C [m]			No	IFD
	1336-36-3	Sum of PCBs	30		3,903		µg/kg-ww	SO7	128/130	40 - 40	3,903	1.6	C			Yes	ASL
Dioxins and Furans																	
		TEQ as 2,3,7,8-TCDD	0.25		45.98		ng/kg-ww	HB Mouth	30/30	N/A	46	0.021	C [n]			Yes	ASL

Notes: – no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
N – non-carcinogenic
N/A – not applicable
ND – not detected

Rationale Codes:
Selection Reason: ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available

Deletion Reason: BSL – below screening level
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] Screening toxicity values for fish are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[b] This default carcinogenic screening value for chromium is that for chromium VI.
[c] No toxicity data for lead in fish. Observed concentrations not expected to pose significant risk. See text.
[d] This default screening value is for methylmercury.
[e] Criterion for cis and trans is 1,3-dichloropropene (however, there were no detects, so summing was not necessary).
[f] This default screening value is for 4-nitrophenol.
[g] This default screening value is that for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[h] This default screening value is for technical HCH (BHC).
[i] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[j] This default non-carcinogenic screening value is that for endosulfan.
[k] This default non-carcinogenic screening value is that for endrin.
[l] No screening criteria available for photomirex. Photomirex detections were added to mirex, and the mirex/photomirex total was screened against the mirex criteria.
[m] This default carcinogenic screening value is that for PCBs.
[n] This default carcinogenic screening value for PCDD/PCDFs is 2,3,7,8-TCDD.
[o] The removal of the 1992 PTI PCB data results in Aroclor 1254 not being flagged as a COPC.
[p] 5AHB is the area of the lake extending from Tributary 5A to Harbor Brook (Honeywell 2000 Phase 2A sampling). HB Mouth is from NYSDEC 1999 fish sampling.

Table 2.2
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Surface Sediments
Exposure Medium:	Surface Sediments
Exposure Point:	**Nearshore surface sediment from the northern basin of Onondaga Lake**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	159		6,465		mg/kg	S360	42/42	N/A	6,465	13,220	7,800 N	7,600 N			No	BSL
7440-36-0	Antimony	0.32		9.2		mg/kg	S93	12/42	0.24-8.7	9.2	3.3	3.1 N	3.1 N			Yes	ASL
7440-38-2	Arsenic	0.32		8.0		mg/kg	S53	37/42	0.34-0.41	8.0	8.3	0.43 C	0.39 C			Yes	BKG
7440-39-3	Barium	38.2		708		mg/kg	S53	42/42	N/A	708	203	550 N	540 N			Yes	ASL
7440-41-7	Beryllium	0.11		0.40		mg/kg	S363	30/42	0.2-0.54	0.40	0.67	16 N	15 N			No	BSL
7440-43-9	Cadmium	0.083		4.6		mg/kg	S105	38/54	0.04-1.1	4.6	0.45	3.9 N	3.7 N			Yes	ASL
7440-70-2	Calcium	74,200		392,000		mg/kg	S363	54/54	N/A	392,000	170,277	N/A	N/A			No	NUT
7440-47-3	Chromium	2.3	J	81.6		mg/kg	S372	54/54	N/A	82	22	23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	0.20		8.9	J	mg/kg	S304	37/42	0.17-0.69	8.9	12	160 N	470 N			No	BSL
7440-50-8	Copper	1.7		41	J	mg/kg	S304	52/54	9.3-11.4	41	146	310 N	290 N			No	BSL
74-90-8	Cyanide	1.0		1.0		mg/kg	S66	1/36	0.64-7.9	1.0	-	160 N	1.1 N			No	BSL
7439-89-6	Iron	874		14,000		mg/kg	S359	42/42	N/A	14,000	25,526	4,700 N	2,300 N			Yes	BKG
7439-92-1	Lead	0.50		48.3	J	mg/kg	S304	54/54	N/A	48	33	N/A	400 N			No	BSL
7439-95-4	Magnesium	1,640	J	30,300		mg/kg	S363	54/54	N/A	30,300	10,909	N/A	N/A			No	NUT
7439-96-5	Manganese	104		445	J	mg/kg	S100	42/42	N/A	445	1,373	160 N	180 N			Yes	BKG
7439-97-6	Total Mercury	0.055		10.5	J	mg/kg	S360	43/56	0.04-0.5	11	0.163	2.3 N	2.3 N			Yes	ASL
22967-92-6	Methylmercury	1.8		3.3		µg/kg	S372	3/3	N/A	3.3	1.2	780 N	610 N			Yes	HIST
7440-02-0	Nickel	2.1		36.4	J	mg/kg	S304	53/54	2.4-2.4	36	29	160 N	160 N			No	BSL
7440-09-7	Potassium	62.3		2,090		mg/kg	S360	41/42	121-121	2,090	1602	N/A	N/A			No	NUT
7782-49-2	Selenium	0.38	J	1.2	J	mg/kg	S304, S306 & S372	19/42	0.15-1.3	1.2	1.6	39 N	39 N			No	BSL
7440-22-4	Silver	0.26		2.7	J	mg/kg	S66	13/42	0.1-1.1	2.7	ND	39 N	39 N			No	BSL
7440-23-5	Sodium	394		16,000		mg/kg	S362	41/42	782-782	16,000	277	N/A	N/A			No	NUT
7440-28-0	Thallium	0.19		0.73	J	mg/kg	S53	4/42	0.15-1.7	0.73	0.83	0.55 N	0.52 N			Yes	BKG
7440-62-2	Vanadium	1.0		17	J	mg/kg	S304	35/42	0.51-1.4	17	21	55 N	55 N			No	BSL
7440-66-6	Zinc	6.8	J	113		mg/kg	S363	52/54	8.4-40.6	113	104	2,300 N	2,300 N			No	BSL
VOCs																	
67-64-1	Acetone	23		210		µg/kg	S362	12/22	20-7400	210		782,000	160,000 N			No	BSL
71-43-2	Benzene	3.9		1,400		µg/kg	S363	8/34	7-22	1,400		12,000	650 C			Yes	ASL
75-27-4	Bromodichloromethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		10,000	1,000 C			No	IFD
75-25-2	Bromoform	-		-		µg/kg	N/A	0/22	7.4-1800	ND		81,000	62,000 C			No	IFD
74-83-9	Bromomethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		11,000	390 N			No	IFD
78-93-3	2-Butanone	2.9		200		µg/kg	S66	9/22	15-3700	200		4,693,000	730,000 N			No	BSL
75-15-0	Carbon disulfide	2.1		17		µg/kg	S361	4/22	15-3700	17		782,000	36,000 N			No	BSL
56-23-5	Carbon tetrachloride	-		-		µg/kg	N/A	0/22	7.4-1800	ND		4,900	210 N			No	IFD
108-90-7	Chlorobenzene	20		20		µg/kg	S304	1/35	7-1800	20		156,000	15,000 N			No	BSL
75-00-3	Chloroethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		220,000	3,000 C			No	IFD
67-66-3	Chloroform	-		-		µg/kg	N/A	0/22	7.4-1800	ND		78,000	39 N			No	IFD
74-87-3	Chloromethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		49,000	1,200 C			No	IFD

Table 2.2
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
124-48-1	Dibromochloromethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		7,600	1,100 C			No	IFD
75-34-3	1,1-Dichloroethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		782,000	59,000 N			No	IFD
107-06-2	1,2-Dichloroethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		7,000	350 C			No	IFD
75-35-4	1,1-Dichloroethene	-		-		µg/kg	N/A	0/22	7.4-1800	ND		1,100	54 C			No	IFD
156-59-2	cis-1,2-Dichloroethene	-		-		µg/kg	N/A	0/11	7.4-1800	ND		78,000	4,300 N			No	IFD
156-60-5	trans-1,2-Dichloroethene	-		-		µg/kg	N/A	0/11	7.4-1800	ND		156,000	6,300 N			No	IFD
540-59-0	1,2-Dichloroethene isomers (total)	-		-		µg/kg	N/A	0/11	16-63	ND		70,000	4,300 N [e]			No	IFD
78-87-5	1,2-Dichloropropane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		9,400	350 C			No	IFD
10061-01-5	cis-1,3-Dichloropropene	-		-		µg/kg	N/A	0/22	7.4-1800	ND		6400 [f]	700 C [f]			No	IFD
10061-02-6	trans-1,3-Dichloropropene	-		-		µg/kg	N/A	0/22	7.4-1800	ND		6400 [f]	700 C [f]			No	IFD
100-41-4	Ethylbenzene	16	*J*	1,100		µg/kg	S363	5/34	7-63	1,100		782,000	230,000 sat			No	BSL
591-78-6	2-Hexanone	-		-		µg/kg	N/A	0/22	15-3700	ND		313,000	N/A			No	IFD
108-10-1	4-Methyl-2-pentanone	-		-		µg/kg	N/A	0/22	15-3700	ND		626,000	79,000 N			No	IFD
75-09-2	Methylene chloride	-		-		µg/kg	N/A	0/22	7.4-1800	ND		85,000	8,900 C			No	IFD
100-42-5	Styrene	-		-		µg/kg	N/A	0/22	7.4-1800	ND		1,564,000	1,700,000 sat			No	IFD
	Tetrachlorobenzene (mixed)	-		-		µg/kg	N/A	0/6	4-6.2	ND		2,300 [g]	1,800 N [g]			No	IFD
79-34-5	1,1,2,2-Tetrachloroethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		3,200	380 C			No	IFD
127-18-4	Tetrachloroethene	-		-		µg/kg	N/A	0/22	7.4-1800	ND		12,000	5,700 C			No	IFD
108-88-3	Toluene	3.0	*J*	8,000		µg/kg	S363	13/34	7.4-20	8,000		1,564,000	520,000 sat			No	BSL
71-55-6	1,1,1-Trichloroethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		2,190,000	630,00 N			No	IFD
79-00-5	1,1,2-Trichloroethane	-		-		µg/kg	N/A	0/22	7.4-1800	ND		11,000	840 C			No	IFD
79-01-6	Trichloroethene	-		-		µg/kg	N/A	0/22	7.4-1800	ND		47,000	2,300 N			No	IFD
75-01-4	Vinyl chloride	-		-		µg/kg	N/A	0/22	7.4-1800	ND		90	150 C			No	IFD
1330-20-7	Sum of Xylenes	14	*J*	28,850		µg/kg	S363	7/34	7-22	28,850		15643000 [h]	210,000 sat [h]			No	BSL
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/30	250-1500	ND		2,346,000	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/42	48-300	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/42	48-300	ND		580	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	22	*J*	1,300		µg/kg	S356	14/40	49-300	1,300		46,000	35,000 C			No	BSL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/42	48-300	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/42	48-300	ND		1,564,000	1,200,000 N			No	IFD
86-74-8	Carbazole	20	*J*	470		µg/kg	S66	3/42	48-300	470		32,000	24,000 C			No	BSL
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/41	74-1500	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	-		-		µg/kg	N/A	0/42	48-300	ND		31,000	24,000 N			No	IFD
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/42	48-300	ND		626,000	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/41	48-300	ND		39,000	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/42	48-300	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	18	*J*	340		µg/kg	S66	2/42	48-300	340		31,000	29,000 N			No	BSL
95-50-1	1,2-Dichlorobenzene	20	*J*	20	*J*	µg/kg	S100	1/54	7-300	20		704,000	370,000 sat			No	BSL
541-73-1	1,3-Dichlorobenzene	81	*J*	120	*J*	µg/kg	S304	2/54	7-300	120		235,000	1,300 N			No	BSL
106-46-7	1,4-Dichlorobenzene	-		-		µg/kg	N/A	0/54	7-300	ND		27,000	3,400 C			No	IFD
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/42	48-300	ND		1,400	1,100 C			No	IFD
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/41	74-1500	ND		23,000	18,000 N			No	IFD

Table 2.2
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/42	48-300	ND		6,257,000	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/42	48-300	ND		78,214,000	100,000,000 max			No	IFD
105-67-9	2,4-Dimethylphenol	-		-		µg/kg	N/A	0/41	74-1500	ND		156,000	120,000 N			No	IFD
84-74-2	Di-n-butyl phthalate	-		-		µg/kg	N/A	0/42	48-300	ND		782,000	610,000 N			No	IFD
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/41	190-7600	ND		16,000	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/42	74-1500	ND		16,000	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/42	74-1500	ND		7,800	6,100 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/42	48-300	ND		156,000	120,000 N			No	IFD
118-74-1	Hexachlorobenzene	4.3	J	755	J	µg/kg	S304	12/49	1-190	755		400	300 C			Yes	ASL
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/42	48-300	ND		1,600	1,800 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/42	74-1500	ND		47,000	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/42	48-300	ND		7,800	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/42	48-300	ND		672,000	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/41	190-7600	ND		7,800	N/A			No	IFD
95-48-7	2-Methylphenol	30	J	365	J	µg/kg	S360	4/42	48-300	365		391,000	310,000 N			No	BSL
106-44-5	4-Methylphenol	77		1,850	J	µg/kg	S360	9/42	48-190	1,850		39,000	31,000 N			No	BSL
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/42	97-600	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/42	190-7600	ND		N/A	350 N [j]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/42	190-7600	ND		N/A	350 N [j]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/42	48-300	ND		3,900	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/41	74-1500	ND		N/A	49,000 N [k]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/41	190-7600	ND		63,000	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/30	55-1500	ND		13	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/42	48-300	ND		91	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/42	48-300	ND		130,000	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/42	48-300	ND		9,100	2,900 C			No	IFD
608-93-5	Pentachlorobenzene	-		-		µg/kg	N/A	0/6	4.8-6.2	ND		6,300	4,900 N			No	IFD
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/41	190-7600	ND		5,300	3,000 C			No	IFD
108-95-2	Phenol	45	J	995	J	µg/kg	S360	8/42	48-150	995		4,693,000	3,700,000 N			No	BSL
634-66-2	1,2,3,4-Tetrachlorobenzene	-		-		µg/kg	N/A	0/7	4.8-9	ND		2,300 [g]	1,800 N [g]			No	IFD
87-61-6	1,2,3-Trichlorobenzene	-		-		µg/kg	N/A	0/14	7-11	ND		78,000 N [l]	65,000 N [l]			No	IFD
120-82-1	1,2,4-Trichlorobenzene	-		-		µg/kg	N/A	0/54	7-300	ND		78,000 N	65,000 N			No	IFD
108-70-3	1,3,5-Trichlorobenzene	-		-		µg/kg	N/A	0/14	7-11	ND		78,000 N [l]	65,000 N [l]			No	IFD
12002-48-1	Sum of Trichlorobenzenes	-		-		µg/kg	N/A	0/14	7-11	ND		78,000 N [l]	65,000 N [l]			No	IFD
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/41	190-1500	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/41	74-1500	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	41	J	730		µg/kg	S61	5/53	48-650	730		469,000 N	370,000 N			No	BSL
208-96-8	Acenaphthylene	34	J	770	J	µg/kg	S61	3/53	48-1300	770		156,000 N [m]	5,600 N [m]			No	BSL
120-12-7	Anthracene	13	J	750		µg/kg	S66	15/53	24-300	750		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	17	J	1,500		µg/kg	S66	24/53	29-300	1,500		870 C	620 C			Yes	ASL
50-32-8	Benzo(a)pyrene	19	J	1,300		µg/kg	S66	23/53	24-300	1,300		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	31	J	1,600		µg/kg	S66	24/53	51-300	1,600		870 C	620 C			Yes	ASL

Table 2.2
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
191-24-2	Benzo(g,h,i)perylene	45	J	520		µg/kg	S61	18/53	47-300	520		156,000 N [m]	5,600 N [m]			No	BSL
207-08-9	Benzo(k)fluoranthene	12	J	250		µg/kg	S61	15/53	29-300	250		8,700 C	6,200 C			No	BSL
218-01-9	Chrysene	21	J	1,200		µg/kg	S66	23/53	24-300	1,200		87,000 C	62,000 C			No	BSL
53-70-3	Dibenz(a,h)anthracene	19	J	180		µg/kg	S66	11/53	47-300	180		87 C	62 C			Yes	ASL
206-44-0	Fluoranthene	23	J	2,300		µg/kg	S66	28/53	47-1000	2,300		313,000 N	230,000 N			No	BSL
86-73-7	Fluorene	23	J	480		µg/kg	S66	9/53	47-300	480		313,000 N	260,000 N			No	BSL
193-39-5	Indeno(1,2,3-cd)pyrene	16	J	540		µg/kg	S66	17/53	24-300	540		870 C	620 C			No	BSL
91-57-6	2-Methylnaphthalene	160		160		µg/kg	S66	1/42	48-300	160		156,000 N	5,600 N [m]			No	BSL
91-20-3	Naphthalene	35	J	14,000		µg/kg	S363	8/53	48-650	14,000		156,000 N	5,600 N			Yes	ASL
85-01-8	Phenanthrene	32	J	2,300		µg/kg	S66	19/53	24-300	2,300		156,000 N [m]	5,600 N [m]			No	BSL
129-00-0	Pyrene	25	J	2,200		µg/kg	S66	29/53	29-300	2,200		235,000 N	230,000 N			No	BSL
Pesticides																	
309-00-2	Aldrin	-		-		µg/kg	N/A	0/39	1-4.7	ND		38 C	29 C			No	IFD
319-84-6	alpha-BHC	-		-		µg/kg	N/A	0/39	1-4.7	ND		100 C	90 C			No	IFD
319-85-7	beta-BHC	-		-		µg/kg	N/A	0/39	1-4.7	ND		350 C	320 C			No	IFD
319-86-8	delta-BHC	-		-		µg/kg	N/A	0/14	1-4.7	ND		350 C [n]	320 C [n]			No	IFD
58-89-9	gamma-BHC (Lindane)	-		-		µg/kg	N/A	0/26	1-4.7	ND		490 C	440 C			No	IFD
57-74-9	Sum of Chlordanes	-		-		µg/kg	N/A	0/39	1-4.7	ND		1,800 C	1,600 C			No	IFD
72-54-8	4,4'-DDD	-		-		µg/kg	N/A	0/22	1-9.1	ND		2,700 C	2,400 C [o]			No	IFD
72-55-9	4,4'-DDE	1.1	J	1.6	J	µg/kg	S358	4/39	1-9.1	1.6		1,900 C	1,700 C [o]			No	BSL
50-29-3	4,4'-DDT	1.3	J	31	J	µg/kg	S359	9/29	1-9.1	31		1,900 C	1,700 C [o]			No	BSL
60-57-1	Dieldrin	1.3	J	24	J	µg/kg	S359	4/39	1-9.1	24		40 C	30 C			No	BSL
959-98-8	Endosulfan I	-		-		µg/kg	N/A	0/39	1-4.7	ND		47,000 N [p]	37,000 N [p]			No	IFD
33213-65-9	Endosulfan II	-		-		µg/kg	N/A	0/16	1-9.1	ND		47,000 N [p]	37,000 N [q]			No	IFD
1031-07-8	Endosulfan sulfate	1.2	J	1.2	J	µg/kg	S306	1/16	1-9.1	1.2		47,000 N [p]	37,000 N [q]			No	BSL
72-20-8	Endrin	1.1	J	1.1	J	µg/kg	S363	1/38	1-9.1	1.1		47,000 N [q]	1,800 N			No	BSL
7421-93-4	Endrin aldehyde	1.2	J	3.4	J	µg/kg	S356	5/40	1-9.1	3.4		2,300 N [q]	1,800 N [q]			No	BSL
53494-70-5	Endrin ketone	-		-		µg/kg	N/A	0/39	1-9.1	ND		2,300 N [q]	1,800 N [q]			No	IFD
76-44-8	Heptachlor	-		-		µg/kg	N/A	0/39	1-4.7	ND		140 C	110 C			No	IFD
1024-57-3	Heptachlor epoxide	1.1	J	2.3	J	µg/kg	S360	3/37	1-4.7	2.3		70 C	53 C			No	BSL
72-43-5	Methoxychlor	-		-		µg/kg	N/A	0/39	1-47	ND		39,000 N	31,000 N			No	IFD
8001-35-2	Toxaphene	-		-		µg/kg	N/A	0/39	100-470	ND		580 C	440 C			No	IFD
PCBs																	
12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/56	29-91	ND		550 N	390 N			No	IFD
11104-28-2	Aroclor 1221	-		-		µg/kg	N/A	0/56	29-180	ND		320 C	220 C			No	IFD
11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/56	29-91	ND		320 C	220 C			No	IFD
53469-21-9	Aroclor 1242	12	J	86	J	µg/kg	S304	8/56	29-91	86		320 C	220 C			No	BSL
12672-29-6	Aroclor 1248	70		70		µg/kg	S61	1/56	29-91	70		320 C	220 C			No	BSL
11097-69-1	Aroclor 1254	11	J	1,200		µg/kg	S359	8/56	29-91	1,200		160 N	110 N			Yes	ASL
11096-82-5	Aroclor 1260	15	J	143		µg/kg	S359	7/56	29-91	143		320 C	220 C			No	BSL
	Aroclor 1268	58	J	313	J	µg/kg	S360	3/32	50-54.9	313		320 C [r]	220 C [r]			Yes	ASL
1336-36-3	Sum of PCBs	27		1,377		µg/kg	S359	13/56	58-182	1,377		320 C	220 C			Yes	ASL

Table 2.2
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
PCDD/PCDFs																	
	TEQ as 2,3,7,8-TCDD	0.37		8.4		ng/kg	S360	5/5	N/A	8.4		4.3 C [s]	3.9 C [s]			Yes	ASL

Notes: All results reported as dry weight.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable
ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Rationale Codes:

Selection Reason:
ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available

Deletion Reason:
BSL – below screening level
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] Background values derived from sediment from Otisco Lake (OT1-OT7) as twice the mean value.
[b] Screening toxicity values for sediment are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for sediment are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] This default screening value is for cis-1,2-Dichloroethene.
[f] Criterion for cis and trans is 1,3-Dichloropropene (however, there were no detects, so summing was not necessary).
[g] This default screening value is for 1,2,4,5-Tetrachlorobenzene.
[h] This default screening value is for total xylenes.
[i] This default screening value is for 1,3-Dichlorobenzene.
[j] This default screening value is for 2-Nitroaniline.
[k] This default screening value is for 4-Nitrophenol.
[l] This default screening value is for 1,2,4-Trichlorobenzene.
[m] This default screening value is that for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[n] This default screening value is for Technical HCH (BHC).
[o] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[p] This default non-carcinogenic screening value is for endosulfan.
[q] This default non-carcinogenic screening value is for endrin.
[r] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[s] This default carcinogenic screening value for the PCDD/PCDFs is 2,3,7,8-TCDD.
[t] 1992 samples were collected at 0-0.02 and 0-0.30 meter intervals, 2000 samples were collected at 0-0.02, 0.02-0.15, 0-0.15 and 0.15-0.30 meter intervals. The 1992 and 2000 data are used as discrete, individual data points for the screening. Discussion is in Section 3.2

Table 2.3
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Surface Sediments
Exposure Point: **Nearshore surface sediment from the southern basin of Onondaga Lake**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	655		17,200		mg/kg	S322	83/83	N/A	17,200	13,220	7,800 N	7,600 N			Yes	ASL
7440-36-0	Antimony	0.25	J	7.4	J	mg/kg	S336	49/83	0.24-5.6	7.4	3.3	3.1 N	3.1 N			Yes	ASL
7440-38-2	Arsenic	0.51		47	J	mg/kg	S333	80/83	0.41-0.42	47	8.3	0.43 C	0.39 C			Yes	ASL
7440-39-3	Barium	24		22,600		mg/kg	S341	83/83	N/A	22,600	203	550 N	540 N			Yes	ASL
7440-41-7	Beryllium	0.03		0.93		mg/kg	S322	74/83	0.17-0.36	0.93	0.67	16 N	15 N			No	BSL
7440-43-9	Cadmium	0.05		18		mg/kg	S322	88/100	0.04-0.54	18	0.45	3.9 N	3.7 N			Yes	ASL
7440-70-2	Calcium	45,300		371,000		mg/kg	S328	100/100	N/A	371,000	170,277	N/A	N/A			No	NUT
7440-47-3	Chromium	3.2		3,040		mg/kg	S336	100/100	N/A	3,040	22	23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	0.23		105	J	mg/kg	S336	83/83	N/A	105	12	160 N	470 N			No	BSL
7440-50-8	Copper	1.6		446	J	mg/kg	S336	100/100	N/A	446	146	310 N	290 N			Yes	ASL
74-90-8	Cyanide	0.94		12		mg/kg	S345	20/76	0.57-5.4	12	-	160 N	1.1 N			Yes	ASL
7439-89-6	Iron	1,780		42,000		mg/kg	S336	83/83	N/A	42,000	25,526	4,700 N	2,300 N			Yes	ASL
7439-92-1	Lead	0.39		2,050	J	mg/kg	S336	100/100	N/A	2,050	33	N/A	400 N			Yes	ASL
7439-95-4	Magnesium	2,500		39,800		mg/kg	S345	100/100	N/A	39,800	10,909	N/A	N/A			No	NUT
7439-96-5	Manganese	93.3	J	850		mg/kg	S336	83/83	N/A	850	1,373	160 N	180 N			Yes	BKG
7439-97-6	Total mercury	0.056		65		mg/kg	S406	107/114	0.04-0.14	65	0.16	2.3 N	2.3 N			Yes	ASL
22967-92-6	Methylmercury	0.44		42		µg/kg	S406	14/14	N/A	42	1.2	780 N	610 N			Yes	HIST
7440-02-0	Nickel	2.4		1,080	J	mg/kg	S339	100/100	N/A	1,080	29	160 N	160 N			Yes	ASL
7440-09-7	Potassium	48.3	J	3,820		mg/kg	S322	79/83	11.9-14.6	3,820	1,602	N/A	N/A			No	NUT
7782-49-2	Selenium	0.25	J	5.4	J	mg/kg	S435	54/83	0.16-1.2	5.4	1.6	39 N	39 N			No	BSL
7440-22-4	Silver	0.11		6.2		mg/kg	S322	55/83	0.09-0.37	6.2	ND	39 N	39 N			No	BSL
7440-23-5	Sodium	163		13,700		mg/kg	S349	83/83	N/A	13,700	277	N/A	N/A			No	NUT
7440-28-0	Thallium	0.28	J	1.3		mg/kg	S352	15/83	0.11-1.6	1.3	0.83	0.55 N	0.52 N			Yes	ASL
7440-62-2	Vanadium	0.51		174	J	mg/kg	S336	81/83	0.4-1	174	21	55 N	55 N			Yes	ASL
7440-66-6	Zinc	12.4	J	2,260	J	mg/kg	S336	100/100	N/A	2,260	104	2,300 N	2,300 N			No	BSL
VOCs																	
67-64-1	Acetone	8.0	J	8,000	J	µg/kg	S341	22/48	14-6600	8,000		782,000 N	160,000			No	BSL
71-43-2	Benzene	2.0		180,000		µg/kg	S335	60/95	3-3600	180,000		12,000 C	650			Yes	ASL
75-27-4	Bromodichloromethane	-		-		µg/kg	N/A	0/78	3-22000	ND		10,000 C	1,000			No	IFD
75-25-2	Bromoform	-		-		µg/kg	N/A	0/78	3-22000	ND		81,000 C	62,000			No	IFD
74-83-9	Bromomethane	-		-		µg/kg	N/A	0/78	6.2-45000	ND		11,000 N	390			No	IFD
78-93-3	2-Butanone	2.0	J	2,900	J	µg/kg	S20	21/53	11-45000	2,900		4,693,000 N	730,000			No	BSL
75-15-0	Carbon disulfide	0.70	J	4,400	J	µg/kg	S345	16/78	4-22000	4,400		782,000 N	36,000			No	BSL
56-23-5	Carbon tetrachloride	-		-		µg/kg	N/A	0/74	3-22000	ND		4,900 C	210			No	IFD
108-90-7	Chlorobenzene	1.7		290,000	J	µg/kg	S336	68/95	3-76	290,000		156,000 N	15,000			Yes	ASL
75-00-3	Chloroethane	-		-		µg/kg	N/A	0/78	6.2-45000	ND		220,000 C	3,000			No	IFD
67-66-3	Chloroform	-		-		µg/kg	N/A	0/78	3-22000	ND		78,000 N	39			No	IFD
74-87-3	Chloromethane	-		-		µg/kg	N/A	0/78	6.2-45000	ND		49,000 C	1,200			No	IFD

Table 2.3
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
124-48-1	Dibromochloromethane	-		-		µg/kg	N/A	0/74	3-22000	ND		7,600 C	1,100			No	IFD
75-34-3	1,1-Dichloroethane	-		-		µg/kg	N/A	0/78	3-22000	ND		782,000 N	59,000			No	IFD
107-06-2	1,2-Dichloroethane	11	*J*	11	*J*	µg/kg	S340	1/78	3-22000	11		7,000 C	350			No	BSL
75-35-4	1,1-Dichloroethene	-		-		µg/kg	N/A	0/78	3-22000	ND		1,100 C	54			No	IFD
156-59-2	cis-1,2-Dichloroethene	1.0		2.4	*J*	µg/kg	S313	2/64	3-22000	2.4		78,000 N	4,300			No	BSL
156-60-5	trans-1,2-Dichloroethene	-		-		µg/kg	N/A	0/64	3-22000	ND		156,000 N	6,300 N			No	IFD
540-59-0	1,2-Dichloroethene isomers (total)	-		-		µg/kg	N/A	0/14	11-5900	ND		70,000 N	4,300 N [e]			No	IFD
78-87-5	1,2-Dichloropropane	-		-		µg/kg	N/A	0/78	3-22000	ND		9,400 C	350 C			No	IFD
10061-01-5	cis-1,3-Dichloropropene	-		-		µg/kg	N/A	0/78	3-22000	ND		6,400 C [f]	700 C [f]			No	IFD
10061-02-6	trans-1,3-Dichloropropene	-		-		µg/kg	N/A	0/67	3-22000	ND		6,400 C [f]	700 C [f]			No	IFD
100-41-4	Ethylbenzene	0.90	*J*	71,000	*J*	µg/kg	S435	49/95	3-22000	71,000		782,000 N	230,000 sat			No	BSL
591-78-6	2-Hexanone	-		-		µg/kg	N/A	0/78	7-45000	ND		313,000 N	N/A			No	IFD
108-10-1	4-Methyl-2-pentanone	-		-		µg/kg	N/A	0/78	7-45000	ND		626,000 N	79,000 N			No	IFD
75-09-2	Methylene chloride	10	*J*	13,000	*J*	µg/kg	S347	10/78	4-45000	13,000		85,000 C	8,900 C			**Yes**	ASL
100-42-5	Styrene	110	*J*	7,000	*J*	µg/kg	S347	21/78	3-22000	7,000		1,564,000 N	1,700,000 sat			No	BSL
	Tetrachlorobenzene (mixed)	13		1,000		µg/kg	S21	4/17	4.1-22000	1,000		2,300 N [g]	1,800 N [g]			No	BSL
79-34-5	1,1,2,2-Tetrachloroethane	-		-		µg/kg	N/A	0/78	3-22000	ND		3,200 C	380 C			No	IFD
127-18-4	Tetrachloroethene	2.0	*J*	3.0	*J*	µg/kg	S313	2/78	3-22000	3.0		12,000 C	5,700 C			No	BSL
108-88-3	Toluene	3.0	*J*	12,000		µg/kg	P20	57/95	3-22000	12,000		1,564,000 N	520,000 sat			No	BSL
71-55-6	1,1,1-Trichloroethane	2.7	*J*	2.7	*J*	µg/kg	S313	1/78	3-22000	2.7		2,190,000 N	63,000 N			No	BSL
79-00-5	1,1,2-Trichloroethane	-		-		µg/kg	N/A	0/78	3-22000	ND		11,000 C	840 C			No	IFD
79-01-6	Trichloroethene	1.7	*J*	4.0		µg/kg	S351	2/78	3-22000	4.0		47,000 N	2,300 N			No	BSL
75-01-4	Vinyl chloride	-		-		µg/kg	N/A	0/78	6.2-45000	ND		90 C	150 C			No	IFD
1330-20-7	Sum of Xylenes	2.1		330,000	*J*	µg/kg	S435	53/95	3-22000	330,000		15,643,000 N [h]	210,000 sat [h]			**Yes**	ASL
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/69	170-1200000	ND		2,346,000 N	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/83	33-230000	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/83	33-230000	ND		580 C	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	27	*J*	5,500	*J*	µg/kg	S322	30/83	33-230000	5,500		46,000 C	35,000 C			No	BSL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/83	33-230000	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/83	33-230000	ND		1,564,000 N	1,200,000 N			No	IFD
86-74-8	Carbazole	33	*J*	19,000		µg/kg	S313	26/83	33-230000	19,000		32,000 C	24,000 C			No	BSL
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/83	80-1200000	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	100		100		µg/kg	S351	1/83	33-230000	100		31,000 N	24,000 N			No	BSL
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/83	33-230000	ND		626,000 N	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/83	33-230000	ND		39,000 N	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/83	33-230000	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	18	*J*	81,000		µg/kg	S313	39/83	33-230000	81,000		31,000 N	29,000 N			**Yes**	ASL
95-50-1	1,2-Dichlorobenzene	33	*J*	19,000		µg/kg	S347	43/100	7-230000	19,000		704,000 N	370,000 sat			No	BSL
541-73-1	1,3-Dichlorobenzene	21	*J*	7,000		µg/kg	S336	16/100	7-230000	7,000		235,000 N	1,300 N			**Yes**	ASL
106-46-7	1,4-Dichlorobenzene	5.0	*J*	120,000		µg/kg	S336	56/100	7-230000	120,000		27,000 C	3,400 C			**Yes**	ASL
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/83	33-230000	ND		1,400 C	1,100 C			No	IFD
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/83	80-1200000	ND		23,000 N	18,000 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/83	33-230000	ND		6,257,000 N	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/83	33-230000	ND		78,214,000 N	100,000,000 max			No	IFD

Table 2.3
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Onondaga Lake

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105-67-9	2,4-Dimethylphenol	990		990		µg/kg	S349	1/83	80-1200000	990		156,000 N	120,000 N			No	BSL
84-74-2	Di-n-butyl phthalate	41	J	79		µg/kg	S343	5/83	33-230000	79		782,000 N	610,000 N			No	BSL
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/83	200-6000000	ND		16,000 N	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/83	80-1200000	ND		16,000 N	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/83	80-1200000	ND		7,800 N	6,100 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/83	33-230000	ND		156,000 N	120,000 N			No	IFD
118-74-1	Hexachlorobenzene	1.1	J	20,000	J	µg/kg	S3	56/100	1-42000	20,000		400 C	300 C			Yes	ASL
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/83	33-230000	ND		1,600 N	1,800 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/79	80-1200000	ND		47,000 N	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/83	33-230000	ND		7,800 N	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/83	33-230000	ND		672,000 C	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/83	200-6000000	ND		7,800 N	N/A			No	IFD
95-48-7	2-Methylphenol	1,100		1,100		µg/kg	S349	1/83	33-230000	1,100		391,000 N	310,000 N			No	BSL
106-44-5	4-Methylphenol	100	J	3,000		µg/kg	S349	6/83	33-230000	3,000		39,000 N	31,000 N			No	BSL
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/83	67-470000	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/83	200-6000000	ND		N/A	350 N [j]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/83	200-6000000	ND		N/A	350 N [j]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/83	33-230000	ND		3,900 N	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/83	80-1200000	ND		N/A	49,000 N [k]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/83	200-6000000	ND		63,000 N	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/69	170-1200000	ND		13 C	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/83	33-230000	ND		91 C	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/83	33-230000	ND		130,000 C	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/83	33-230000	ND		9,100 C	2,900 C			No	IFD
608-93-5	Pentachlorobenzene	3.2	J	330		µg/kg	S21	5/17	4.1-7100	330		6,300 N	4,900 N			No	BSL
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/83	200-6000000	ND		5,300 C	3,000 C			No	IFD
108-95-2	Phenol	190		3,700		µg/kg	S311	16/83	33-230000	3,700		4,693,000 N	3,700,000 N			No	BSL
634-66-2	1,2,3,4-Tetrachlorobenzene	11		650		µg/kg	S21	5/17	4.1-30000	650		2,300 N [g]	1,800 N [g]			No	BSL
87-61-6	1,2,3-Trichlorobenzene	910	J	4,500		µg/kg	S3	2/18	7-2700	4,500		78,000 N [l]	65,000 N [l]			No	BSL
120-82-1	1,2,4-Trichlorobenzene	25	J	5,700	J	µg/kg	S1	19/100	7-230000	5,700		78,000 N	65,000 N			No	BSL
108-70-3	1,3,5-Trichlorobenzene	560	J	6,400		µg/kg	S3	4/18	7-1500	6,400		78,000 N [l]	65,000 N [l]			No	BSL
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/83	170-1200000	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/83	80-1200000	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	29	J	85,000		µg/kg	S313	47/99	33-230000	85,000		469,000 N	370,000 N			No	BSL
208-96-8	Acenaphthylene	41	J	19,000		µg/kg	S313	54/99	33-230000	19,000		156,000 N [m]	5,600 N [m]			Yes	ASL
120-12-7	Anthracene	45	J	95,000		µg/kg	S313	72/99	28-230000	95,000		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	58	J	100,000		µg/kg	S313	72/99	28-230000	100,000		870 C	620 C			Yes	ASL
50-32-8	Benzo(a)pyrene	22	J	65,000		µg/kg	S313	68/99	55-230000	65,000		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	41	J	57,000		µg/kg	S313	70/99	55-230000	57,000		870 C	620 C			Yes	ASL
191-24-2	Benzo(g,h,i)perylene	66	J	35,000		µg/kg	S313	64/99	33-230000	35,000		156,000 N [m]	5,600 N [m]			Yes	ASL
207-08-9	Benzo(k)fluoranthene	43		60,000		µg/kg	S313	57/99	33-230000	60,000		8,700 C	6,200 C			Yes	ASL
218-01-9	Chrysene	14	J	100,000		µg/kg	S313	71/99	55-230000	100,000		87,000 C	62,000 C			Yes	ASL
53-70-3	Dibenz(a,h)anthracene	31	J	17,000		µg/kg	S313	42/99	33-230000	17,000		87 C	62 C			Yes	ASL
206-44-0	Fluoranthene	80		250,000		µg/kg	S313	75/99	55-230000	250,000		313,000 N	230,000 N			Yes	ASL
86-73-7	Fluorene	42	J	140,000		µg/kg	S313	63/99	33-230000	140,000		313,000 N	260,000 N			No	BSL

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Onondaga Lake

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193-39-5	Indeno(1,2,3-cd)pyrene	35	J	38,000		µg/kg	S313	57/99	28-230000	38,000		870 C	620 C			Yes	ASL
91-57-6	2-Methylnaphthalene	33	J	2,800,000	J	µg/kg	S435	54/83	33-42000	2,800,000		156,000 N	5,600 N [m]			Yes	ASL
91-20-3	Naphthalene	48	J	26,000,000	J	µg/kg	S435	75/99	46-42000	26,000,000		156,000 N	5,600 N			Yes	ASL
85-01-8	Phenanthrene	72	J	630,000	J	µg/kg	S435	82/99	28-42000	630,000		156,000 N [m]	5,600 N [m]			Yes	ASL
129-00-0	Pyrene	31	J	150,000		µg/kg	S313	77/99	28-230000	150,000		235,000 N	230,000 N			No	BSL
Pesticides																	
309-00-2	Aldrin	1.9	J	3.5	J	µg/kg	S339	2/60	1-15	3.5		38 C	29 C			No	BSL
319-84-6	alpha-BHC	1.1	J	13	J	µg/kg	S313	11/61	1-15	13		100 C	90 C			No	BSL
319-85-7	beta-BHC	1.3	J	110	J	µg/kg	S1	15/67	1-15	110		350 C	320 C			No	BSL
319-86-8	delta-BHC	1.0	J	3.4	J	µg/kg	S333	13/32	1-15	3.4		350 C [n]	320 C [n]			No	BSL
58-89-9	gamma-BHC (Lindane)	-		-		µg/kg	N/A	0/63	1-15	ND		490 C	440 C			No	IFD
57-74-9	Sum of Chlordanes	1.1	J	50	J	µg/kg	S314	20/71	1-15	50		1,800 C	1,600 C			No	BSL
72-54-8	4,4'-DDD	1.3	J	47	J	µg/kg	S20	6/56	1-29	47		2,700 C	2,400 C [o]			No	BSL
72-55-9	4,4'-DDE	1.1	J	34	J	µg/kg	S314	16/56	1-29	34		1,900 C	1,700 C [o]			No	BSL
50-29-3	4,4'-DDT	1.2	J	88	J	µg/kg	S313	26/55	1-29	88		1,900 C	1,700 C [o]			No	BSL
60-57-1	Dieldrin	1.4	J	31	J	µg/kg	S313	20/67	1-29	31		40 C	30 C			Yes	ASL
959-98-8	Endosulfan I	1.1	J	8.7	J	µg/kg	S352	4/63	1-15	8.7		47,000 N [p]	37,000 N [p]			No	BSL
33213-65-9	Endosulfan II	-		-		µg/kg	N/A	0/56	1-29	ND		47,000 N [p]	37,000 N [p]			No	IFD
1031-07-8	Endosulfan sulfate	2.7	J	31	J	µg/kg	S313	6/42	1-29	31		47,000 N [p]	37,000 N [p]			No	BSL
72-20-8	Endrin	1.1	J	8.4	J	µg/kg	S313	13/66	1-29	8.4		2,300 N	1,800 N			No	BSL
7421-93-4	Endrin aldehyde	1.8		1.8		µg/kg	S318	1/62	1-29	1.77		2,300 N [q]	1,800 N [q]			No	BSL
53494-70-5	Endrin ketone	1.2	J	49	J	µg/kg	S313	3/62	1-29	49		2,300 N [q]	1,800 N [q]			No	BSL
76-44-8	Heptachlor	1.7	J	6.1	J	µg/kg	S20	5/71	1-15	6.1		140 C	110 C			No	BSL
1024-57-3	Heptachlor epoxide	1.3	J	52	J	µg/kg	S314	17/66	1-15	52		70 C	53 C			No	BSL
72-43-5	Methoxychlor	1.1	J	7.7	J	µg/kg	S314	5/60	1-150	7.7		39,000 N	31,000 N			No	BSL
8001-35-2	Toxaphene	-		-		µg/kg	N/A	0/71	1-1500	ND		580 C	440 C			No	IFD
PCBs																	
12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/108	43-1500	ND		550 N	390 N			No	IFD
11104-28-2	Aroclor 1221	287	J	499	J	µg/kg	S340	3/108	49-1500	499		320 C	220 C			Yes	ASL
11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/108	43-1500	ND		320 C	220 C			No	IFD
53469-21-9	Aroclor 1242	18	J	9,340	J	µg/kg	S314	51/108	43-540	9,340		320 C	220 C			Yes	ASL
12672-29-6	Aroclor 1248	40	J	4,200	J	µg/kg	S3	20/108	43-1500	4,200		320 C	220 C			Yes	ASL
11097-69-1	Aroclor 1254	11	J	1,010	J	µg/kg	S314 & S322	53/108	43-1500	1,010		160 N	110 N			Yes	ASL
11096-82-5	Aroclor 1260	12	J	1,800	J	µg/kg	S3	59/108	43-540	1,800		320 C	220 C			Yes	ASL
	Aroclor 1268	19	J	27	J	µg/kg	S339	3/77	50-1500	27		320 C [r]	220 C [r]			No	BSL
1336-36-3	Sum of PCBs	34		11,036		µg/kg	S314	81/108	86-1080	11,036		320 C	220 C			Yes	ASL
PCDD/PCDFs																	
	TEQ as 2,3,7,8-TCDD	0.24		715		ng/kg	S311	18/18	N/A	715		4.3 C [s]	3.9 C [s]			Yes	ASL

Notes: All results reported as dry weight.
– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable

Table 2.3
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection

ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Rationale Codes:

Selection Reason:
ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available

Deletion Reason:
BSL – below screening level
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] Background values derived from sediment from Otisco Lake (OT1-OT7) as twice the mean value.
[b] Screening toxicity values for sediment are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for sediment are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] This default screening value is for cis-1,2-Dichloroethene.
[f] Criterion for cis and trans is 1,3-Dichloropropene (however, there were no detects, so summing was not necessary).
[g] This default screening value is for 1,2,4,5-Tetrachlorobenzene.
[h] This default screening value is for total xylenes.
[i] This default screening value is for 1,3-Dichlorobenzene.
[j] This default screening value is for 2-Nitroaniline.
[k] This default screening value is for 4-Nitrophenol.
[l] This default screening value is for 1,2,4-Trichlorobenzene.
[m] This default screening value is that for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[n] This default screening value is for Technical HCH (BHC).
[o] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[p] This default non-carcinogenic screening value is that for endosulfan.
[q] This default non-carcinogenic screening value is that for endrin.
[r] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[s] This default carcinogenic screening value for the PCDD/PCDFs is 2,3,7,8-TCDD.
[t] 1992 samples were collected at 0-0.02 and 0-0.30 meter intervals, 2000 samples were collected at 0-0.02, 0.02-0.15, 0-0.15 and 0.15-0.30 meter intervals. The 1992 and 2000 data are used as discrete, individual data points for the screening. Discussion is in Section 3.2

Table 2.4
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Surface Sediments
Exposure Medium:	Surface Sediments
Exposure Point:	**Wetland SYW-6 sediment from the northern basin of Onondaga Lake**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	634		13,700	J	mg/kg	W6__2	18/18	N/A	13,700	13,220	7,800 N	7,600 N			Yes	ASL
7440-36-0	Antimony	0.10	J	2.20	J	mg/kg	W6__3	8/18	0.05-0.86	2.2	3.3	3.1 N	3.1 N			No	BSL
7440-38-2	Arsenic	0.5		7.7	J	mg/kg	W6__2	18/18	N/A	7.7	8.3	0.43 C	0.39 C			Yes	BKG
7440-39-3	Barium	78		224	J	mg/kg	W6__2	18/18	N/A	224	203	550 N	540 N			No	BSL
7440-41-7	Beryllium	0.02		0.88	J	mg/kg	W6__2	18/18	N/A	0.88	0.67	16 N	15 N			No	BSL
7440-43-9	Cadmium	0.31		14		mg/kg	S375	18/18	N/A	14	0.45	3.9 N	3.7 N			Yes	ASL
7440-70-2	Calcium	37,600	J	336,000		mg/kg	W6__5	18/18	N/A	336,000	170,277	N/A	N/A			No	NUT
7440-47-3	Chromium	6.2		154		mg/kg	S375	18/18	N/A	154	22	23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	1.1	J	7.1	J	mg/kg	W6__2	18/18	N/A	7.1	12	160 N	470 N			No	BSL
7440-50-8	Copper	8.0		122	J	mg/kg	W6__2	18/18	N/A	122	146	310 N	290 N			No	BSL
74-90-8	Cyanide	5.4		5.4		mg/kg	S376	1/8	0.91-2.3	5.4	-	160 N	1.1 N			Yes	ASL
7439-89-6	Iron	1,920	J	32,400	J	mg/kg	W6__2	18/18	N/A	32,400	25,526	4,700 N	2,300 N			Yes	ASL
7439-92-1	Lead	12	J	178	J	mg/kg	W6__3	18/18	N/A	178	33	N/A	400 N			No	BSL
7439-95-4	Magnesium	2,340	J	14,200		mg/kg	S376	18/18	N/A	14,200	10,909	N/A	N/A			No	NUT
7439-96-5	Manganese	120		434	J	mg/kg	W6__2	18/18	N/A	434	1,373	160 N	180 N			Yes	BKG
7439-97-6	Mercury(inorganic) [o]	0.07	J	4.46	J	mg/kg	W6__3	17/18	0.08-0.08	4.46	0.16	2.3 N	2.3 N			Yes	ASL
22967-92-6	Methylmercury [o]	0.001	J	0.045	J	mg/kg	W6__3	17/18	0.08-0.08	0.001	1.2	780 N	610 N			Yes	HIST
7440-02-0	Nickel	5.5		75	J	mg/kg	W6__2	18/18	N/A	75	29	160 N	160 N			No	BSL
7440-09-7	Potassium	165	J	1,740		mg/kg	S375	18/18	N/A	1,740	1,602	N/A	N/A			No	NUT
7782-49-2	Selenium	0.7	J	2.5		mg/kg	S375	6/18	0.11-1.3	2.5	1.6	39 N	39 N			No	BSL
7440-22-4	Silver	0.20		1.4	J	mg/kg	S375 & W6__3	12/18	0.02-0.27	1.4	ND	39 N	39 N			No	BSL
7440-23-5	Sodium	456	J	3,120	J	mg/kg	S375	18/18	N/A	3120	277	N/A	N/A			No	NUT
7440-28-0	Thallium	0.5	J	1.9	J	mg/kg	W6__2	6/18	0.11-2.2	1.9	0.83	0.55 N	0.52 N			Yes	ASL
7440-62-2	Vanadium	1.6		36	J	mg/kg	W6__2	18/18	N/A	36	21	55 N	55 N			No	BSL
7440-66-6	Zinc	23	J	510	J	mg/kg	S376	18/18	N/A	510	104	2,300 N	2,300 N			No	BSL
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/8	320-670	ND		2,346,000 N	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/18	62-130	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/18	62-130	ND		580 C	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	2,100		2,100		µg/kg	S378	3/18	62-220	2,100		46,000 C	35,000 C			No	BSL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/18	62-130	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/18	62-130	ND		1,564,000 N	1,200,000 N			No	IFD
86-74-8	Carbazole	6,600	J	6,600	J	µg/kg	W6__3	1/18	62-1900	6600		32,000 C	24,000 C			No	BSL
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/18	320-670	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	-		-		µg/kg	N/A	0/18	62-130	ND		31,000 N	24,000 N			No	IFD
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/18	62-130	ND		626,000 N	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/18	62-130	ND		39,000 N	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/18	62-130	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	7,600	J	7,600	J	µg/kg	W6__3	1/18	62-1900	7600		31,000 N	29,000 N			No	BSL
95-50-1	1,2-Dichlorobenzene	-		-		µg/kg	N/A	0/18	62-130	ND		704,000 N	370,000 sat			No	IFD
541-73-1	1,3-Dichlorobenzene	-		-		µg/kg	N/A	0/18	62-130	ND		235,000 N	1,300 N			No	IFD

Table 2.4
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value[a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	ARAR/ TBC Value	ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
106-46-7	1,4-Dichlorobenzene	-		-		µg/kg	N/A	0/18	62-130	ND		27,000 C	3,400 C			No	IFD
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/18	62-130	ND		1,400 C	1,100 C			No	IFD
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/18	320-670	ND		23,000 N	18,000 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/18	62-130	ND		6,257,000 N	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/18	62-130	ND		78,214,000 N	100,000,000 max			No	IFD
105-67-9	2,4-Dimethylphenol	820	J	820	J	µg/kg	W6__3	1/18	320-1900	820		156,000 N	120,000 N			No	BSL
84-74-2	Di-n-butyl phthalate	170	J	170	J	µg/kg	W6__2	1/18	62-6300	170		782,000 N	610,000 N			No	BSL
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/18	1600-3400	ND		16,000 N	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/18	320-670	ND		16,000 N	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/18	320-670	ND		7,800 N	6,100 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/18	62-130	ND		156,000 N	120,000 N			No	IFD
118-74-1	Hexachlorobenzene	-		-		µg/kg	N/A	0//23	1.07-130	ND		400 C	300 C			No	IFD
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/18	62-130	ND		1,600 N	1,800 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/18	320-670	ND		47,000 N	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/18	62-130	ND		7,800 N	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/18	62-130	ND		672,000 C	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/9	1600-3400	ND		7,800 N	N/A			No	IFD
95-48-7	2-Methylphenol	-		-		µg/kg	N/A	0/18	62-130	ND		391,000 N	310,000 N			No	IFD
106-44-5	4-Methylphenol	100	J	1,100	J	µg/kg	W6__3	2/18	62-1900	1100		39,000 N	31,000 N			No	BSL
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/18	130-260	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/18	1600-3400	ND		N/A	350 N [e]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/18	1600-3400	ND		N/A	350 N [e]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/18	62-130	ND		3,900 N	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/18	320-670	ND		N/A	49,000 N [f]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/18	1600-3400	ND		63,000 N	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/8	320-670	ND		13 C	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/18	62-130	ND		91 C	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/18	62-130	ND		130,000 C	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/18	62-130	ND		9,100 C	2,900 C			No	IFD
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/18	1600-3400	ND		5,300 C	3,000 C			No	IFD
108-95-2	Phenol	650	J	650	J	µg/kg	W6__3	1/18	62-1900	650		4,693,000 N	3,700,000 N			No	BSL
120-82-1	1,2,4-Trichlorobenzene	-		-		µg/kg	N/A	0/18	62-130	ND		78,000 N	65,000 N			No	IFD
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/18	320-670	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/18	320-670	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	6,300	J	6,300	J	µg/kg	W6__3	1/18	62-1900	6300		469,000 N	370,000 N			No	BSL
208-96-8	Acenaphthylene	212	J	7,500	J	µg/kg	W6__3	4/18	62-1500	7500		156,000 N [g]	5,600 N [g]			Yes	ASL
120-12-7	Anthracene	94	J	18,000	J	µg/kg	W6__3	5/18	62-1500	18000		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	89		49,000	J	µg/kg	W6__3	13/18	62-1500	49000		870 C	620 C			Yes	ASL
50-32-8	Benzo(a)pyrene	91		48,000	J	µg/kg	W6__3	13/18	62-1500	48000		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	110		59,000	J	µg/kg	W6__3	12/18	62-1500	59000		870 C	620 C			Yes	ASL
191-24-2	Benzo(g,h,i)perylene	93	J	28,000	J	µg/kg	W6__3	11/18	62-1500	28000		156,000 N [g]	5,600 N [g]			Yes	ASL
207-08-9	Benzo(k)fluoranthene	94	J	22,000	J	µg/kg	W6__3	10/18	62-1500	22000		8,700 C	6,200 C			Yes	ASL
218-01-9	Chrysene	50	J	48,000	J	µg/kg	W6__3	15/18	62-98	48000		87,000 C	62,000 C			No	BSL
53-70-3	Dibenz(a,h)anthracene	260	J	7,900	J	µg/kg	W6__3	2/18	62-1900	7900		87 C	62 C			Yes	ASL
206-44-0	Fluoranthene	59	J	86,000	J	µg/kg	W6__3	15/18	62-98	86000		313,000 N	230,000 N			No	BSL
86-73-7	Fluorene	110	J	12,000	J	µg/kg	W6__3	3/18	62-1500	12000		313,000 N	260,000 N			No	BSL
193-39-5	Indeno(1,2,3-cd)pyrene	90		28,000	J	µg/kg	W6__3	11/18	62-1500	28000		870 C	620 C			Yes	ASL

Table 2.4
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value[a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	ARAR/ TBC Value	ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
91-57-6	2-Methylnaphthalene	5,600	J	5,600	J	µg/kg	W6__3	1/18	62-1900	5600		156,000 N	5,600 N [g]			Yes	ASL
91-20-3	Naphthalene	7,600	J	7,600	J	µg/kg	W6__3	1/18	62-1900	7600		156,000 N	5,600 N			Yes	ASL
85-01-8	Phenanthrene	60	J	63,000	J	µg/kg	W6__3	12/18	62-1500	63000		156,000 N [g]	5,600 N [g]			Yes	ASL
129-00-0	Pyrene	72	J	83,000	J	µg/kg	W6__3	15/18	62-98	83000		235,000 N	230,000 N			No	BSL
Pesticides																	
309-00-2	Aldrin	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		38 C	29 C			No	IFD
319-84-6	alpha-BHC	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		100 C	90 C			No	IFD
319-85-7	beta-BHC	-		-		µg/kg	N/A	0/7	1.06-1.09	ND		350 C	320 C			No	IFD
319-86-8	delta-BHC	-		-		µg/kg	N/A	0/0	N/A	ND		350 C [h]	320 C [h]			No	IFD
58-89-9	gamma-BHC (Lindane)	-		-		µg/kg	N/A	0/7	1.06-1.09	ND		490 C	440 C			No	IFD
57-74-9	Sum of Chlordanes	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		1,800 C	1,600 C			No	IFD
72-54-8	4,4'-DDD	-		-		µg/kg	N/A	0/7	1.06-1.09	ND		2,700 C	2,400 C [i]			No	IFD
72-55-9	4,4'-DDE	2.4	J	2.4	J	µg/kg	S378	1/7	1.06-1.08	2.4		1,900 C	1,700 C [i]			No	BSL
50-29-3	4,4'-DDT	1.5	J	2.3	J	µg/kg	S376	5/6	1.07-1.07	2.3		1,900 C	1,700 C [i]			No	BSL
60-57-1	Dieldrin	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		40 C	30 C			No	IFD
959-98-8	Endosulfan I	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		47,000 N [i]	37,000 N [j]			No	IFD
33213-65-9	Endosulfan II	-		-		µg/kg	N/A	0/7	1.06-1.09	ND		47,000 N [i]	37,000 N [j]			No	IFD
1031-07-8	Endosulfan sulfate	-		-		µg/kg	N/A	0/0	N/A	ND		47,000 N [i]	37,000 N [j]			No	IFD
72-20-8	Endrin	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		2,300 N	1,800 N			No	IFD
7421-93-4	Endrin aldehyde	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		2,300 N [j]	1,800 N [k]			No	IFD
53494-70-5	Endrin ketone	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		2,300 N [j]	1,800 N [k]			No	IFD
76-44-8	Heptachlor	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		140 C	110 C			No	IFD
1024-57-3	Heptachlor epoxide	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		70 C	53 C			No	IFD
72-43-5	Methoxychlor	-		-		µg/kg	N/A	0/8	1.06-1.09	ND		39,000 N	31,000 N			No	IFD
8001-35-2	Toxaphene	-		-		µg/kg	N/A	0/8	106-109	ND		580 C	440 C			No	IFD
PCBs																	
12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/8	53.1-54.5	ND		550 N	390 N			No	IFD
11104-28-2	Aroclor 1221	-		-		µg/kg	N/A	0/8	53.1-54.5	ND		320 C	220 C			No	IFD
11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/8	53.1-54.5	ND		320 C	220 C			No	IFD
53469-21-9	Aroclor 1242	21	J	21	J	µg/kg	S378	1/8	53.1-54.2	21		320 C	220 C			No	BSL
12672-29-6	Aroclor 1248	-		-		µg/kg	N/A	0/8	53.1-54.5	ND		320 C	220 C			No	IFD
11097-69-1	Aroclor 1254	17	J	38	J	µg/kg	S376	6/8	53.5-54.2	38		160 N	110 N			No	BSL
11096-82-5	Aroclor 1260	12	J	26	J	µg/kg	S375	3/8	53.5-54.5	26		320 C	220 C			No	BSL
	Aroclor 1268	-		-		µg/kg	N/A	0/8	53.1-54.5	ND		320 C [l]	220 C [l]			No	IFD
1336-36-3	Sum of PCBs	28		61		µg/kg	S375	6/8	107-108.4	61		320 C	220 C			No	BSL
PCDD/PCDFs																	
	TEQ as 2,3,7,8-TCDD	0.32		20		ng/kg	S375	8/8	N/A	20		4.3 C [m]	3.9 C [m]			Yes	ASL

Notes: All results reported as dry weight.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable
ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Table 2.4
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value[a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	ARAR/ TBC Value	ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection

Rationale Codes:

Selection Reason:
- ASL – above screening levels
- BKG – below background levels
- FD – frequent detection
- HIST – infrequent detection but associated historically
- TX – toxicity information available

Deletion Reason:
- BSL – below screening level
- IFD – infrequent detection
- NTX – no toxicity information
- NUT – essential nutrient

[a] Background values derived from sediment from Otisco Lake (OT1-OT7) as twice the mean value.
[b] Screening toxicity values for sediment are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for sediment are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] This default screening value is for 2-Nitroaniline.
[f] This default screening value is for 4-Nitrophenol.
[g] This default screening value is for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[h] This default screening value is for Technical HCH (BHC).
[I] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[j] This default non-carcinogenic screening value is that for endosulfan.
[k] This default non-carcinogenic screening value is that for endrin.
[l] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[m] This default carcinogenic screening value for the PCDD/PCDFs is 2,3,7,8-TCDD.
[n] 2000 samples were collected at 0-0.15 and 0.15-0.30 meter intervals, 2002 data collected at 0-0.15 and 0.15-0.30 meter intervals. The 2000 and 2002 data are used as discrete, individual data points for the screening. Discussion is in Section 3.2
[o] Mercury (inorganic) and methylmercury concentrations in wetlands sediment estimated from total mercury concentration data (as shown in Appendix A.4 and A.5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 2.5
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Surface Sediments
Exposure Medium:	Surface Sediments
Exposure Point:	**Wetland SWY-10 sediment from the northern basin of Onondaga Lake**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	1,870		12,400		mg/kg	S379	8/8	N/A	12,400	13,220	7,800 N	7,600 N			Yes	BKG
7440-36-0	Antimony	0.32		10		mg/kg	S380	3/8	0.3-0.53	10	3.3	3.1 N	3.1 N			Yes	ASL
7440-38-2	Arsenic	2.0		18		mg/kg	S379	8/8	N/A	18	8.3	0.43 C	0.39 C			Yes	ASL
7440-39-3	Barium	73.7		157		mg/kg	S380	8/8	N/A	157	203	550 N	540 N			No	BSL
7440-41-7	Beryllium	0.23		1.2		mg/kg	S379	8/8	N/A	1.2	0.67	16 N	15 N			No	BSL
7440-43-9	Cadmium	0.14		1.0		mg/kg	S380	8/8	N/A	1.0	0.45	3.9 N	3.7 N			No	BSL
7440-70-2	Calcium	108,000		335,000		mg/kg	S380	8/8	N/A	335,000	170,277	N/A	N/A			No	NUT
7440-47-3	Chromium	11.7		47		mg/kg	S379	8/8	N/A	47	22	23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	2.6		8.5		mg/kg	S379	8/8	N/A	8.5	12	160 N	470 N			No	BSL
7440-50-8	Copper	19.8		49		mg/kg	S379	8/8	N/A	49	146	310 N	290 N			No	BSL
74-90-8	Cyanide	-		-		mg/kg	N/A	0/8	0.77-1.4	ND	-	160 N	1.1 N			No	IFD
7439-89-6	Iron	6,320		21,600		mg/kg	S379	8/8	N/A	21,600	25,526	4,700 N	2,300 N			Yes	BKG
7439-92-1	Lead	24.3		115		mg/kg	S379	8/8	N/A	115	33	N/A	400 N			No	BSL
7439-95-4	Magnesium	3,150		14,300		mg/kg	S381	8/8	N/A	14,300	10,909	N/A	N/A			No	NUT
7439-96-5	Manganese	172.5		488		mg/kg	S381	8/8	N/A	488	1,373	160 N	180 N			Yes	BKG
7439-97-6	Mercury(inorganic) [q]	0.66	J	3.37	J	mg/kg	S380	8/8	N/A	3.4	0.16	2.3 N	2.3 N			Yes	ASL
22967-92-6	Methylmercury [q]	0.01	J	0.03	J	mg/kg	S380	8/8	N/A	0.03	0.16	2.3 N	2.3 N			Yes	HIST
7440-02-0	Nickel	8.9		34		mg/kg	S379	8/8	N/A	34	29	160 N	160 N			No	BSL
7440-09-7	Potassium	341		2,160		mg/kg	S381	8/8	N/A	2,160	1,602	N/A	N/A			No	NUT
7782-49-2	Selenium	1.6	J	1.8		mg/kg	S379	2/8	0.57-1	1.8	1.6	39 N	39 N			No	BSL
7440-22-4	Silver	-		-		mg/kg	N/A	0/8	0.12-0.21	ND	ND	39 N	39 N			No	IFD
7440-23-5	Sodium	682	J	5,430	J	mg/kg	S382	8/8	N/A	5,430	277	N/A	N/A			No	NUT
7440-28-0	Thallium	0.89		2.5		mg/kg	S379	6/8	0.93-0.98	2.5	0.83	0.55 N	0.52 N			Yes	ASL
7440-62-2	Vanadium	4.7		31		mg/kg	S379	8/8	N/A	31	21	55 N	55 N			No	BSL
7440-66-6	Zinc	47.2	J	163	J	mg/kg	S380	8/8	N/A	163	104	2,300 N	2,300 N			No	BSL
VOCs																	
67-64-1	Acetone	16		34		µg/kg	S382	2/8	31-46	34		782,000 N	160,000 N			No	BSL
71-43-2	Benzene	-		-		µg/kg	N/A	0/8	7.8-11	ND		12,000 C	650 C			No	IFD
75-27-4	Bromodichloromethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		10,000 C	1,000 C			No	IFD
75-25-2	Bromoform	-		-		µg/kg	N/A	0/8	7.8-11	ND		81,000 C	62,000 C			No	IFD
74-83-9	Bromomethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		11,000 N	390 N			No	IFD
78-93-3	2-Butanone	26		26		µg/kg	S382	1/8	16-23	26		4,693,000 N	730,000 N			No	BSL
75-15-0	Carbon disulfide	-		-		µg/kg	N/A	0/8	16-23	ND		782,000 N	36,000 N			No	IFD
56-23-5	Carbon tetrachloride	-		-		µg/kg	N/A	0/8	7.8-11	ND		4,900 C	210 N			No	IFD
108-90-7	Chlorobenzene	-		-		µg/kg	N/A	0/8	7.8-11	ND		156,000 N	15,000 N			No	IFD
75-00-3	Chloroethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		220,000 C	3,000 C			No	IFD
67-66-3	Chloroform	-		-		µg/kg	N/A	0/8	7.8-11	ND		78,000 N	39 N			No	IFD
74-87-3	Chloromethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		49,000 C	1,200 C			No	IFD
124-48-1	Dibromochloromethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		7,600 C	1,100 C			No	IFD
75-34-3	1,1-Dichloroethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		782,000 N	59,000 N			No	IFD

Table 2.5
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value[a]	Screening Toxicity Values: Region III Residential Soils[b]	Screening Toxicity Values: Region IX Residential Soils[c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
107-06-2	1,2-Dichloroethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		7,000 C	350 C			No	IFD
75-35-4	1,1-Dichloroethene	-		-		µg/kg	N/A	0/8	7.8-11	ND		1,100 C	54 C			No	IFD
156-59-2	cis-1,2-Dichloroethene	-		-		µg/kg	N/A	0/8	7.8-11	ND		78,000 N	4,300 N			No	IFD
156-60-5	trans-1,2-Dichloroethene	-		-		µg/kg	N/A	0/8	7.8-11	ND		156,000 N	6,300 N			No	IFD
78-87-5	1,2-Dichloropropane	-		-		µg/kg	N/A	0/8	7.8-11	ND		9,400 C	350 C			No	IFD
10061-01-5	cis-1,3-Dichloropropene	-		-		µg/kg	N/A	0/8	7.8-11	ND		6,400 C[e]	700 C[e]			No	IFD
10061-02-6	trans-1,3-Dichloropropene	-		-		µg/kg	N/A	0/8	7.8-11	ND		6,400 C[e]	700 C[e]			No	IFD
100-41-4	Ethylbenzene	-		-		µg/kg	N/A	0/8	7.8-11	ND		782,000 N	230,000 sat			No	IFD
591-78-6	2-Hexanone	-		-		µg/kg	N/A	0/8	16-23	ND		313,000 N	N/A			No	IFD
108-10-1	4-Methyl-2-pentanone	-		-		µg/kg	N/A	0/8	16-23	ND		626,000 N	79,000 N			No	IFD
75-09-2	Methylene chloride	-		-		µg/kg	N/A	0/8	7.8-11	ND		85,000 C	8,900 C			No	IFD
100-42-5	Styrene	-		-		µg/kg	N/A	0/8	7.8-11	ND		1,564,000 N	1,700,000 sat			No	IFD
79-34-5	1,1,2,2-Tetrachloroethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		3,200 C	380 C			No	IFD
127-18-4	Tetrachloroethene	-		-		µg/kg	N/A	0/8	7.8-11	ND		12,000 C	5,700 C			No	IFD
108-88-3	Toluene	-		-		µg/kg	N/A	0/8	7.8-11	ND		1,564,000 N	520,000 sat			No	IFD
71-55-6	1,1,1-Trichloroethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		2,190,000 N	63,000 N			No	IFD
79-00-5	1,1,2-Trichloroethane	-		-		µg/kg	N/A	0/8	7.8-11	ND		11,000 C	840 C			No	IFD
79-01-6	Trichloroethene	-		-		µg/kg	N/A	0/8	7.8-11	ND		47,000 N	2,300 N			No	IFD
1330-20-7	Sum of Xylenes	-		-		µg/kg	N/A	0/8	7.8-11	ND		15,643,000 N[f]	210,000 sat[f]			No	IFD
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/8	260-380	ND		2,346,000 N	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/8	51-74	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/8	51-74	ND		580 C	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	-		-		µg/kg	N/A	0/8	59-160	ND		46,000 C	35,000 C			No	IFD
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	51-74	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/8	51-74	ND		1,564,000 N	1,200,000 N			No	IFD
86-74-8	Carbazole	170		170		µg/kg	S380	1/8	51-74	170		32,000 C	24,000 C			No	BSL
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/8	260-380	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	-		-		µg/kg	N/A	0/8	51-74	ND		31,000 N	24,000 N			No	IFD
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/8	51-74	ND		626,000 N	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/8	51-74	ND		39,000 N	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	51-74	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	-		-		µg/kg	N/A	0/8	51-74	ND		31,000 N	29,000 N			No	IFD
95-50-1	1,2-Dichlorobenzene	-		-		µg/kg	N/A	0/8	51-74	ND		704,000 N	370,000 sat			No	IFD
541-73-1	1,3-Dichlorobenzene	-		-		µg/kg	N/A	0/8	51-74	ND		235,000 N	1,300 N			No	IFD
106-46-7	1,4-Dichlorobenzene	-		-		µg/kg	N/A	0/8	51-74	ND		27,000 C	3,400 C			No	IFD
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/8	51-74	ND		1,400 C	1,100 C			No	IFD
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/8	260-380	ND		23,000 N	18,000 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/8	51-74	ND		6,257,000 N	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/8	51-74	ND		78,214,000 N	100,000,000 max			No	IFD
105-67-9	2,4-Dimethylphenol	-		-		µg/kg	N/A	0/8	260-380	ND		156,000 N	120,000 N			No	IFD
84-74-2	Di-n-butyl phthalate	-		-		µg/kg	N/A	0/8	51-74	ND		782,000 N	610,000 N			No	IFD
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/8	1300-1900	ND		16,000 N	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/8	260-380	ND		16,000 N	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/8	260-380	ND		7,800 N	6,100 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/8	51-74	ND		156,000 N	120,000 N			No	IFD
118-74-1	Hexachlorobenzene	4.0		251	*J*	µg/kg	S382	9/9	N/A	251		400 C	300 C			No	BSL

Table 2.5
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value[a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/8	51-74	ND		1,600 N	1,800 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/8	260-380	ND		47,000 N	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/8	51-74	ND		7,800 N	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/8	51-74	ND		672,000 C	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/8	1300-1900	ND		7,800 N	N/A			No	IFD
95-48-7	2-Methylphenol	-		-		µg/kg	N/A	0/8	51-74	ND		391,000 N	310,000 N			No	IFD
106-44-5	4-Methylphenol	-		-		µg/kg	N/A	0/8	51-74	ND		39,000 N	31,000 N			No	IFD
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/8	100-150	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/8	1300-1900	ND		N/A	350 N [g]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/8	1300-1900	ND		N/A	350 N [g]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/8	51-74	ND		3,900 N	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/8	260-380	ND		N/A	49,000 N [h]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/8	1300-1900	ND		63,000 N	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/8	260-380	ND		13 C	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/8	51-74	ND		91 C	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/8	51-74	ND		130,000 C	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/8	51-74	ND		9,100 C	2,900 C			No	IFD
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/8	1300-1900	ND		5,300 C	3,000 C			No	IFD
108-95-2	Phenol	-		-		µg/kg	N/A	0/8	51-74	ND		4,693,000 N	3,700,000 N			No	IFD
120-82-1	1,2,4-Trichlorobenzene	-		-		µg/kg	N/A	0/8	51-74	ND		78,000 N	65,000 N			No	IFD
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/8	260-380	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/8	260-380	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	81		81		µg/kg	S380	1/8	51-74	81		469,000 N	370,000 N			No	BSL
208-96-8	Acenaphthylene	-		-		µg/kg	N/A	0/8	51-74	ND		156,000 N [i]	5,600 N [i]			No	IFD
120-12-7	Anthracene	61		200		µg/kg	S380	2/8	51-74	200		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	74	J	1,700		µg/kg	S380	6/8	51-53	1,700		870 C	620 C			Yes	ASL
50-32-8	Benzo(a)pyrene	130		1,800		µg/kg	S380	5/8	51-53	1,800		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	77	J	1,500		µg/kg	S380	6/8	51-53	1,500		870 C	620 C			Yes	ASL
191-24-2	Benzo(g,h,i)perylene	125		970		µg/kg	S380	4/8	51-74	970		156,000 N [i]	5,600 N [i]			No	BSL
207-08-9	Benzo(k)fluoranthene	86	J	1,500		µg/kg	S380	6/8	51-53	1,500		8,700 C	6,200 C			No	BSL
218-01-9	Chrysene	68		2,000		µg/kg	S380	8/8	N/A	2,000		87,000 C	62,000 C			No	BSL
53-70-3	Dibenz(a,h)anthracene	64		480		µg/kg	S380	2/8	51-74	480		87 C	62 C			Yes	ASL
206-44-0	Fluoranthene	85		2,200		µg/kg	S380	8/8	N/A	2,200		313,000 N	230,000 N			No	BSL
86-73-7	Fluorene	71		71		µg/kg	S380	1/8	51-74	71		313,000 N	260,000 N			No	BSL
193-39-5	Indeno(1,2,3-cd)pyrene	125		1,100		µg/kg	S380	4/8	51-74	1,100		870 C	620 C			Yes	ASL
91-57-6	2-Methylnaphthalene	-		-		µg/kg	N/A	0/8	51-74	ND		156,000 N [i]	5,600 N [i]			No	IFD
91-20-3	Naphthalene	-		-		µg/kg	N/A	0/8	51-74	ND		156,000 N	5,600 N			No	IFD
85-01-8	Phenanthrene	65		1,000		µg/kg	S380	7/8	53-53	1,000		156,000 N [i]	5,600 N [i]			No	BSL
129-00-0	Pyrene	120		2,600		µg/kg	S380	7/8	53-53	2,600		235,000 N	230,000 N			No	BSL
Pesticides																	
309-00-2	Aldrin	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		38 C	29 C			No	IFD
319-84-6	alpha-BHC	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		100 C	90 C			No	IFD
319-85-7	beta-BHC	1.2	J	1.2	J	µg/kg	S380	1/8	1.04-1.09	1.2		350 C	320 C			No	BSL
319-86-8	delta-BHC	-		-		µg/kg	N/A	0/0	N/A	ND		350 C [j]	320 C [j]			No	IFD
58-89-9	gamma-BHC (Lindane)	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		490 C	440 C			No	IFD
57-74-9	Sum of Chlordanes	1.7	J	2.2	J	µg/kg	S381	2/8	1.04-1.09	2.2		1,800 C	1,600 C			No	BSL
72-54-8	4,4'-DDD	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		2,700 C	2,400 C [k]			No	IFD

Table 2.5
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value[a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
72-55-9	4,4'-DDE	1.3	*J*	1.5	*J*	µg/kg	S381	2/8	1.04-1.09	1.5		1,900 C	1,700 C [k]			No	BSL
50-29-3	4,4'-DDT	1.2	*J*	4.7	*J*	µg/kg	S381	6/8	1.05-1.05	4.7		1,900 C	1,700 C [k]			No	BSL
60-57-1	Dieldrin	1.4	*J*	2.9	*J*	µg/kg	S381	2/8	1.04-1.09	2.9		40 C	30 C			No	BSL
959-98-8	Endosulfan I	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		47,000 N [l]	37,000 N [l]			No	IFD
33213-65-9	Endosulfan II	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		47,000 N [l]	37,000 N [l]			No	IFD
1031-07-8	Endosulfan sulfate	-		-		µg/kg	N/A	0/0	N/A	ND		47,000 N [l]	37,000 N [l]			No	IFD
72-20-8	Endrin	-		-		µg/kg	N/A	0/7	1.04-1.09	ND		2,300 N	1,800 N			No	IFD
7421-93-4	Endrin aldehyde	2.0	*J*	2.0	*J*	µg/kg	S381	1/8	1.04-1.09	2.0		2,300 N [m]	1,800 N [m]			No	BSL
53494-70-5	Endrin ketone	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		2,300 N [m]	1,800 N [m]			No	IFD
76-44-8	Heptachlor	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		140 C	110 C			No	IFD
1024-57-3	Heptachlor epoxide	1.3	*J*	2.3	*J*	µg/kg	S380	4/8	1.04-1.09	2.3		70 C	53 C			No	BSL
72-43-5	Methoxychlor	-		-		µg/kg	N/A	0/8	1.04-1.09	ND		39,000 N	31,000 N			No	IFD
8001-35-2	Toxaphene	-		-		µg/kg	N/A	0/8	104-109	ND		580 C	440 C			No	IFD
PCBs																	
12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/8	51.8-54.6	ND		550 N	390 N			No	IFD
11104-28-2	Aroclor 1221	-		-		µg/kg	N/A	0/8	51.8-54.6	ND		320 C	220 C			No	IFD
11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/8	51.8-54.6	ND		320 C	220 C			No	IFD
53469-21-9	Aroclor 1242	17	*J*	17	*J*	µg/kg	S380	1/8	51.8-54.6	17		320 C	220 C			No	BSL
12672-29-6	Aroclor 1248	12	*J*	12	*J*	µg/kg	S382	1/8	51.8-54.6	12		320 C	220 C			No	BSL
11097-69-1	Aroclor 1254	14	*J*	55	*J*	µg/kg	S379	4/8	52.5-54.6	55		160 N	110 N			No	BSL
11096-82-5	Aroclor 1260	14	*J*	269	*J*	µg/kg	S381	5/8	51.8-52.9	269		320 C	220 C			**Yes**	ASL
	Aroclor 1268	105	*J*	105	*J*	µg/kg	S379	1/8	51.8-54.6	105		320 C [n]	220 C [n]			No	BSL
1336-36-3	Sum of PCBs	38		296		µg/kg	S381	8/8	N/A	296		320 C	220 C			**Yes**	ASL
PCDD/PCDFs																	
	TEQ as 2,3,7,8-TCDD	4.9		19		ng/kg	S379	8/8	N/A	19		4.3 C [o]	3.9 C [o]			**Yes**	ASL

Notes: All results reported as dry weight.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable
ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Rationale Codes:
Selection Reason: ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available

Deletion Reason:
BSL – below screening level
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] Background values derived from sediment from Otisco Lake (OT1-OT7) as twice the mean value.
[b] Screening toxicity values for sediment are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for sediment are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.

Table 2.5
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value[a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection

[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] Criterion for cis and trans is 1,3-Dichloropropene (however, there were no detects, so summing was not necessary)
[f] This default screening value is for total xylenes.
[g] This default screening value is for 2-Nitroaniline.
[h] This default screening value is for 4-Nitrophenol.
[i] This default screening value is for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[j] This default screening value is for Technical HCH (BHC).
[k] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[l] This default non-carcinogenic screening value is that for endosulfan.
[m] This default non-carcinogenic screening value is that for endrin.
[n] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[o] This default carcinogenic screening value for the PCDD/PCDFs is 2,3,7,8-TCDD.
[p] 2000 samples were collected at 0-0.15 and 0.15-0.30 meter intervals. The 2000 data is used as discrete, individual data points for the screening. Discussion is in Section 3.2
[q] Mercury (inorganic) and methylmercury concentrations in wetlands sediment estimated from total mercury concentration data (as shown in Appendix A.4 and A.5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 2.6
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Surface Sediments
Exposure Point: Wetland SYW-12 sediment from the southern basin of Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	2,410		15,100		mg/kg	S390	8/8	N/A	15,100	13,220	7,800 N	7,600 N			Yes	ASL
7440-36-0	Antimony	0.33	J	0.92		mg/kg	S390	5/8	0.23-0.27	0.92	3.3	3.1 N	3.1 N			No	BSL
7440-38-2	Arsenic	1.6		11		mg/kg	S390	8/8	N/A	11	8.3	0.43 C	0.39 C			Yes	ASL
7440-39-3	Barium	31.4		324		mg/kg	S390	8/8	N/A	324	203	550 N	540 N			No	BSL
7440-41-7	Beryllium	0.17		0.88		mg/kg	S390	8/8	N/A	0.88	0.67	16 N	15 N			No	BSL
7440-43-9	Cadmium	0.94		80		mg/kg	S390	8/8	N/A	80	0.45	3.9 N	3.7 N			Yes	ASL
7440-70-2	Calcium	70,700		207,000		mg/kg	S387	8/8	N/A	207,000	170,277	N/A	N/A			No	NUT
7440-47-3	Chromium	11.6	J	594		mg/kg	S390	8/8	N/A	594	22	23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	1.4		9.3		mg/kg	S390	8/8	N/A	9.3	12	160 N	470 N			No	BSL
7440-50-8	Copper	17.5		517		mg/kg	S390	8/8	N/A	517	146	310 N	290 N			Yes	ASL
74-90-8	Cyanide	1.4		1.4		mg/kg	S390	1/8	0.59-0.79	1.4	-	160 N	1.1 N			Yes	ASL
7439-89-6	Iron	6,830		27,000		mg/kg	S390	8/8	N/A	27,000	25,526	4,700 N	2,300 N			Yes	ASL
7439-92-1	Lead	23.3		340		mg/kg	S390	8/8	N/A	340	33	N/A	400 N			No	BSL
7439-95-4	Magnesium	4,830		17,000		mg/kg	S389	8/8	N/A	17,000	10,909	N/A	N/A			No	NUT
7439-96-5	Manganese	175	J	348		mg/kg	S390	8/8	N/A	348	1,373	160 N	180 N			Yes	BKG
7439-97-6	Mercury(inorganic) [q]	0.053	J	5.940		mg/kg	S390	7/8	0.04-0.04	5.9	0.16	2.3 N	2.3 N			Yes	ASL
22967-92-6	Methylmercury [q]	0.001	J	0.060		mg/kg	S390	7/8	0.04-0.04	0.1	0.16	2.3 N	2.3 N			Yes	HIST
7440-02-0	Nickel	8.1		100		mg/kg	S390	8/8	N/A	100	29	160 N	160 N			No	BSL
7440-09-7	Potassium	366		3,750		mg/kg	S390	8/8	N/A	3,750	1,602	N/A	N/A			No	NUT
7782-49-2	Selenium	0.64		4.1		mg/kg	S389	5/8	0.45-0.59	4.1	1.6	39 N	39 N			No	BSL
7440-22-4	Silver	0.16		12		mg/kg	S390	7/8	0.09-0.09	12	ND	39 N	39 N			No	BSL
7440-23-5	Sodium	242	J	2,070	J	mg/kg	S390	8/8	N/A	2,070	277	N/A	N/A			No	NUT
7440-28-0	Thallium	1.0		1.0		mg/kg	S387	1/8	0.58-0.98	1.0	0.83	0.55 N	0.52 N			Yes	ASL
7440-62-2	Vanadium	4.3		31	J	mg/kg	S390	8/8	N/A	31	21	55 N	55 N			No	BSL
7440-66-6	Zinc	81.4	J	866		mg/kg	S390	8/8	N/A	866	104	2,300 N	2,300 N			No	BSL
VOCs																	
67-64-1	Acetone	18		570		µg/kg	S390	2/8	22-29	570		782,000 N	160,000 N			No	BSL
71-43-2	Benzene	1.3	J	18	J	µg/kg	S390	2/8	5.6-7.6	18		12,000 C	650 C			No	BSL
75-27-4	Bromodichloromethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		10,000 C	1,000 C			No	IFD
75-25-2	Bromoform	-		-		µg/kg	N/A	0/8	5.6-49	ND		81,000 C	62,000 C			No	IFD
74-83-9	Bromomethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		11,000 N	390 N			No	IFD
78-93-3	2-Butanone	3.8	J	86		µg/kg	S390	2/8	11-14	86		4,693,000 N	730,000 N			No	BSL
75-15-0	Carbon disulfide	11		11		µg/kg	S390	1/8	11-15	11		782,000 N	36,000 N			No	BSL
56-23-5	Carbon tetrachloride	-		-		µg/kg	N/A	0/8	5.6-49	ND		4,900 C	210 N			No	IFD
108-90-7	Chlorobenzene	2.0	J	22		µg/kg	S390	3/8	5.6-7.6	22		156,000 N	15,000 N			No	BSL
75-00-3	Chloroethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		220,000 C	3,000 C			No	IFD
67-66-3	Chloroform	-		-		µg/kg	N/A	0/8	5.6-49	ND		78,000 N	39 N			No	IFD
74-87-3	Chloromethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		49,000 C	1,200 C			No	IFD
124-48-1	Dibromochloromethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		7,600 C	1,100 C			No	IFD
75-34-3	1,1-Dichloroethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		782,000 N	59,000 N			No	IFD
107-06-2	1,2-Dichloroethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		7,000 C	350 C			No	IFD
75-35-4	1,1-Dichloroethene	-		-		µg/kg	N/A	0/8	5.6-49	ND		1,100 C	54 C			No	IFD

Table 2.6
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
156-59-2	cis-1,2-Dichloroethene	-		-		µg/kg	N/A	0/8	5.6-49	ND		78,000 N	4,300 N			No	IFD
156-60-5	trans-1,2-Dichloroethene	-		-		µg/kg	N/A	0/8	5.6-49	ND		156,000 N	6,300 N			No	IFD
78-87-5	1,2-Dichloropropane	-		-		µg/kg	N/A	0/8	5.6-49	ND		9,400 C	350 C			No	IFD
10061-01-5	cis-1,3-Dichloropropene	-		-		µg/kg	N/A	0/8	5.6-49	ND		6,400 C [e]	700 C [e]			No	IFD
10061-02-6	trans-1,3-Dichloropropene	-		-		µg/kg	N/A	0/8	5.6-49	ND		6,400 C [e]	700 C [e]			No	IFD
100-41-4	Ethylbenzene	15		15		µg/kg	S390	1/8	5.6-7.6	15		782,000 N	230,000 sat			No	BSL
591-78-6	2-Hexanone	-		-		µg/kg	N/A	0/8	11-98	ND		313,000 N	N/A			No	IFD
108-10-1	4-Methyl-2-pentanone	-		-		µg/kg	N/A	0/8	11-98	ND		626,000 N	79,000 N			No	IFD
75-09-2	Methylene chloride	1.3	*J*	2.6	*J*	µg/kg	S388	4/8	5.6-49	2.6		85,000 C	8,900 C			No	BSL
100-42-5	Styrene	-		-		µg/kg	N/A	0/8	5.6-49	ND		1,564,000 N	1,700,000 sat			No	IFD
79-34-5	1,1,2,2-Tetrachloroethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		3,200 C	380 C			No	IFD
127-18-4	Tetrachloroethene	-		-		µg/kg	N/A	0/8	5.6-49	ND		12,000 C	5,700 C			No	IFD
108-88-3	Toluene	1.7	*J*	24		µg/kg	S390	3/8	5.6-7.6	24		1,564,000 N	520,000 sat			No	BSL
71-55-6	1,1,1-Trichloroethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		2,190,000 N	63,000 N			No	IFD
79-00-5	1,1,2-Trichloroethane	-		-		µg/kg	N/A	0/8	5.6-49	ND		11,000 C	840 C			No	IFD
79-01-6	Trichloroethene	-		-		µg/kg	N/A	0/8	5.6-49	ND		47,000 N	2,300 N			No	IFD
75-01-4	Vinyl chloride	-		-		µg/kg	N/A	0/8	5.6-49	ND		90 C	150 C			No	IFD
1330-20-7	Sum of Xylenes	114		114		µg/kg	S390	1/8	5.6-7.6	114		15,643,000 N [f]	210,000 sat [f]			No	BSL
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/8	200-2100	ND		2,346,000 N	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/8	39-410	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/8	39-410	ND		580 C	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	120		470		µg/kg	S389	2/8	65-410	470		46,000 C	35,000 C			No	BSL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	39-410	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/8	39-410	ND		1,564,000 N	1,200,000 N			No	IFD
86-74-8	Carbazole	78		1,600		µg/kg	S388	4/8	39-410	1,600		32,000 C	24,000 C			No	BSL
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/8	200-2100	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	-		-		µg/kg	N/A	0/8	39-410	ND		31,000 N	24,000 N			No	IFD
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/8	39-410	ND		626,000 N	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/8	39-410	ND		39,000 N	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	39-410	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	46		990		µg/kg	S388	2/8	39-410	990		31,000 N	29,000 N			No	BSL
95-50-1	1,2-Dichlorobenzene	-		-		µg/kg	N/A	0/8	39-410	ND		704,000 N	370,000 sat			No	IFD
541-73-1	1,3-Dichlorobenzene	-		-		µg/kg	N/A	0/8	39-410	ND		235,000 N	1,300 N			No	IFD
106-46-7	1,4-Dichlorobenzene	54		54		µg/kg	S389	1/8	39-410	54		27,000 C	3,400 C			No	BSL
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/8	39-410	ND		1,400 C	1,100 C			No	IFD
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/8	200-2100	ND		23,000 N	18,000 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/8	39-410	ND		6,257,000 N	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/8	39-410	ND		78,214,000 N	100,000,000 max			No	IFD
105-67-9	2,4-Dimethylphenol	-		-		µg/kg	N/A	0/8	200-2100	ND		156,000 N	120,000 N			No	IFD
84-74-2	Di-n-butyl phthalate	120		120		µg/kg	S390	1/8	39-410	120		782,000 N	610,000 N			No	BSL
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/8	1000-11000	ND		16,000 N	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/8	200-2100	ND		16,000 N	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/8	200-2100	ND		7,800 N	61,00 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/8	39-410	ND		156,000 N	120,000 N			No	IFD
118-74-1	Hexachlorobenzene	2.2	*J*	47	*J*	µg/kg	S388	8/8	N/A	47		400 C	300 C			No	BSL
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/8	39-410	ND		1,600 N	1,800 N			No	IFD

Table 2.6
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/8	200-2100	ND		47,000 N	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/8	39-410	ND		7,800 N	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/8	39-410	ND		672,000 C	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/8	1000-11000	ND		7,800 N	N/A			No	IFD
95-48-7	2-Methylphenol	-		-		µg/kg	N/A	0/8	39-410	ND		391,000 N	310,000 N			No	IFD
106-44-5	4-Methylphenol	-		-		µg/kg	N/A	0/8	39-410	ND		39,000 N	31,000 N			No	IFD
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/8	79-840	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/8	1000-11000	ND		N/A	350 N [g]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/8	1000-11000	ND		N/A	350 N [g]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/8	39-410	ND		3,900 N	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/8	200-2100	ND		N/A	49,000 N [h]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/8	1000-11000	ND		63,000 N	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/8	200-2100	ND		13 C	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/8	39-410	ND		91 C	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/8	39-410	ND		130,000 C	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/8	39-410	ND		9,100 C	2,900 C			No	IFD
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/8	1000-11000	ND		5,300 C	3,000 C			No	IFD
108-95-2	Phenol	-		-		µg/kg	N/A	0/8	39-410	ND		4,693,000 N	3,700,000 N			No	IFD
120-82-1	1,2,4-Trichlorobenzene	-		-		µg/kg	N/A	0/8	39-410	ND		78,000 N	65,000 N			No	IFD
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/8	200-2100	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/8	200-2100	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	61		1,300		µg/kg	S388	3/8	39-410	1,300		469,000 N	370,000 N			No	BSL
208-96-8	Acenaphthylene	79		1,200		µg/kg	S388	7/8	39-39	1,200		156,000 N [i]	5,600 N [i]			No	BSL
120-12-7	Anthracene	120		3,600		µg/kg	S388	7/8	39-39	3,600		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	340		7,500		µg/kg	S388	6/8	39-48	7,500		870 C	620 C			Yes	ASL
50-32-8	Benzo(a)pyrene	360		7,100		µg/kg	S388	6/8	39-48	7,100		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	320		4,900		µg/kg	S388	6/8	39-48	4,900		870 C	620 C			Yes	ASL
191-24-2	Benzo(g,h,i)perylene	260		4,800		µg/kg	S388	6/8	39-48	4,800		156,000 N [i]	5,600 N [i]			No	BSL
207-08-9	Benzo(k)fluoranthene	340		5,700		µg/kg	S388	6/8	39-48	5,700		8,700 C	6,200 C			No	BSL
218-01-9	Chrysene	400		7,600		µg/kg	S388	6/8	39-48	7,600		87,000 C	62,000 C			No	BSL
53-70-3	Dibenz(a,h)anthracene	90		210		µg/kg	S390	4/8	39-410	210		87 C	62 C			Yes	ASL
206-44-0	Fluoranthene	120		16,000		µg/kg	S388	7/8	39-39	16,000		313,000 N	230,000 N			No	BSL
86-73-7	Fluorene	73		110		µg/kg	S387	3/8	39-410	110		313,000 N	260,000 N			No	BSL
193-39-5	Indeno(1,2,3-cd)pyrene	190		4,500		µg/kg	S388	6/8	39-48	4,500		870 C	620 C			Yes	ASL
91-57-6	2-Methylnaphthalene	780		780		µg/kg	S388	1/8	39-410	780		156,000 N	5,600 N [i]			No	BSL
91-20-3	Naphthalene	52		1,900		µg/kg	S388	2/8	39-410	1,900		156,000 N	5,600 N			No	BSL
85-01-8	Phenanthrene	88		13,000		µg/kg	S388	7/8	39-39	13,000		156,000 N [i]	5,600 N [i]			Yes	ASL
129-00-0	Pyrene	630		11,000		µg/kg	S388	6/8	39-48	11,000		235,000 N	230,000 N			No	BSL
Pesticides																	
309-00-2	Aldrin	-		-		µg/kg	N/A	0/4	1.05-1.09	ND		38 C	29 C			No	IFD
319-84-6	alpha-BHC	5.7	*J*	5.7	*J*	µg/kg	S390	1/7	1.05-1.09	5.7		100 C	90 C			No	BSL
319-85-7	beta-BHC	2.1	*J*	2.5	*J*	µg/kg	S389	2/8	1.05-1.09	2.5		350 C	320 C			No	BSL
319-86-8	delta-BHC	1.7	*J*	5.0	*J*	µg/kg	S390	2/2	N/A	5.0		350 C [j]	320 C [j]			No	BSL
58-89-9	gamma-BHC (Lindane)	-		-		µg/kg	N/A	0/7	1.05-1.09	ND		490 C	440 C			No	IFD
57-74-9	Sum of Chlordanes	1.5	*J*	27	*J*	µg/kg	S390	7/8	1.07-1.07	27		1,800 C	1,600 C			No	BSL
72-54-8	4,4'-DDD	1.4	*J*	8.3	*J*	µg/kg	S390	3/7	1.07-1.09	8.3		2,700 C	2,400 C [k]			No	BSL
72-55-9	4,4'-DDE	1.3	*J*	7.4	*J*	µg/kg	S389	4/5	1.09-1.09	7.4		1,900 C	1,700 C [k]			No	BSL

Table 2.6
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
50-29-3	4,4'-DDT	2.1	*J*	25	*J*	µg/kg	S390	8/8	N/A	25		1,900 C	1,700 C [k]			No	BSL
60-57-1	Dieldrin	2.6	*J*	21	*J*	µg/kg	S390	6/7	1.05-1.05	21		40 C	30 C			No	BSL
959-98-8	Endosulfan I	-		-		µg/kg	N/A	0/8	1.05-1.09	ND		47,000 N [l]	37,000 N [l]			No	IFD
33213-65-9	Endosulfan II	-		-		µg/kg	N/A	0/3	1.07-1.09	ND		47,000 N [l]	37,000 N [l]			No	IFD
1031-07-8	Endosulfan sulfate	6.2	*J*	6.2	*J*	µg/kg	S387	1/1	N/A	6.2		47,000 N [l]	37,000 N [l]			No	BSL
72-20-8	Endrin	1.7	*J*	5.2	*J*	µg/kg	S390	4/8	1.05-1.09	5.2		2,300 N	1,800 N			No	BSL
7421-93-4	Endrin aldehyde	2.1	*J*	2.5	*J*	µg/kg	S387	2/7	1.05-1.09	2.5		2,300 N [m]	1,800 N [m]			No	BSL
53494-70-5	Endrin ketone	-		-		µg/kg	N/A	0/7	1.05-1.09	ND		2,300 N [m]	1,800 N [m]			No	IFD
76-44-8	Heptachlor	-		-		µg/kg	N/A	0/8	1.05-1.09	ND		140 C	110 C			No	IFD
1024-57-3	Heptachlor epoxide	2.2	*J*	11	*J*	µg/kg	S390	4/5	1.07-1.07	11		70 C	53 C			No	BSL
72-43-5	Methoxychlor	8.7	*J*	8.7	*J*	µg/kg	S388	1/6	1.05-1.09	8.7		39,000 N	31,000 N			No	BSL
8001-35-2	Toxaphene	-		-		µg/kg	N/A	0/8	105-109	ND		580 C	440 C			No	IFD
PCBs																	
12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/8	52.3-54.7	ND		550 N	390 N			No	IFD
11104-28-2	Aroclor 1221	-		-		µg/kg	N/A	0/8	52.3-54.7	ND		320 C	220 C			No	IFD
11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/8	52.3-54.7	ND		320 C	220 C			No	IFD
53469-21-9	Aroclor 1242	14	*J*	537	*J*	µg/kg	S390	8/8	N/A	537		320 C	220 C			Yes	ASL
12672-29-6	Aroclor 1248	-		-		µg/kg	N/A	0/8	52.3-54.7	ND		320 C	220 C			No	IFD
11097-69-1	Aroclor 1254	42	*J*	719	*J*	µg/kg	S390	8/8	N/A	719		160 N	110 N			Yes	ASL
11096-82-5	Aroclor 1260	30	*J*	249	*J*	µg/kg	S390	7/8	116-116	249		320 C	220 C			Yes	ASL
	Aroclor 1268	-		-		µg/kg	N/A	0/8	52.3-54.7	ND		320 C [n]	220 C [n]			No	IFD
1336-36-3	Sum of PCBs	88		1,505		µg/kg	S390	8/8	N/A	1,505		320 C	220 C			Yes	ASL

Notes: All results reported as dry weight.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable
ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Rationale Codes:

Selection Reason:
ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available

Deletion Reason:
BSL – below screening level
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] Background values derived from sediment from Otisco Lake (OT1-OT7) as twice the mean value.
[b] Screening toxicity values for sediment are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for sediment are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] Criterion for cis and trans is 1,3-Dichloropropene (however, there were no detects, so summing was not necessary).
[f] This default screening value is for total xylenes.
[g] This default screening value is for 2-Nitroaniline.

Table 2.6
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection

[h] This default screening value is for 4-Nitrophenol.
[i] This default screening value is for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[j] This default screening value is for Technical HCH (BHC).
[k] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[l] This default non-carcinogenic screening value is that for endosulfan.
[m] This default non-carcinogenic screening value is that for endrin.
[n] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[p] 2000 samples were collected at 0-0.15 and 0.15-0.30 meter intervals. The 2000 data is used as discrete, individual data points for the screening. Discussion is in Section 3.2
[q] Mercury (inorganic) and methylmercury concentrations in wetlands sediment estimated from total mercury concentration data (as shown in Appendix A.4 and A.5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 2.7
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Surface Sediments
Exposure Point: Wetland SYW-19 sediment from the southern basin of Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	2,300		6,500		mg/kg	S386	8/8	N/A	6,500	13,220	7,800 N	7,600 N			No	BSL
7440-36-0	Antimony	0.43	J	5.5	J	mg/kg	S385	7/8	0.32-0.32	5.5	3.3	3.1 N	3.1 N			Yes	ASL
7440-38-2	Arsenic	4.6		9.3		mg/kg	S386	8/8	N/A	9.3	8.3	0.43 C	0.39 C			Yes	ASL
7440-39-3	Barium	161	J	655	J	mg/kg	S386	8/8	N/A	655	203	550 N	540 N			Yes	ASL
7440-41-7	Beryllium	0.25		0.63		mg/kg	S384	8/8	N/A	0.63	0.67	16 N	15 N			No	BSL
7440-43-9	Cadmium	0.67		4.6		mg/kg	S383	8/8	N/A	4.6	0.45	3.9 N	3.7 N			Yes	ASL
7440-70-2	Calcium	152,000		302,000		mg/kg	S385	8/8	N/A	302,000	170,277	N/A	N/A			No	NUT
7440-47-3	Chromium	14.5		98		mg/kg	S383	8/8	N/A	98	22	23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	2.8		5.0		mg/kg	S383 & S384	8/8	N/A	5.0	12	160 N	470 N			No	BSL
7440-50-8	Copper	45		167		mg/kg	S386	8/8	N/A	167	146	310 N	290 N			No	BSL
74-90-8	Cyanide	-		-		mg/kg	N/A	0/8	0.66-1.1	ND	-	160 N	1.1 N			No	IFD
7439-89-6	Iron	3,810		11,750		mg/kg	S385	8/8	N/A	11,750	25,526	4,700 N	2,300 N			Yes	BKG
7439-92-1	Lead	22	J	376	J	mg/kg	S385	8/8	N/A	376	33	N/A	400 N			No	BSL
7439-95-4	Magnesium	3,420		12,800		mg/kg	S386	8/8	N/A	12,800	10,909	N/A	N/A			No	NUT
7439-96-5	Manganese	143		303		mg/kg	S386	8/8	N/A	303	1,373	160 N	180 N			Yes	BKG
7439-97-6	Mercury(inorganic) [q]	4.8		59.6		mg/kg	S385	8/8	N/A	60	0.16	2.3 N	2.3 N			Yes	ASL
22967-92-6	Methylmercury [q]	0.05		0.60		mg/kg	S385	8/8	N/A	1	0.16	2.3 N	2.3 N			Yes	HIST
7440-02-0	Nickel	23.4		45		mg/kg	S383	8/8	N/A	45	29	160 N	160 N			No	BSL
7440-09-7	Potassium	138		941		mg/kg	S385	8/8	N/A	941	1,602	N/A	N/A			No	NUT
7782-49-2	Selenium	0.81		1.7		mg/kg	S385	8/8	N/A	1.7	1.6	39 N	39 N			No	BSL
7440-22-4	Silver	0.15		1.4		mg/kg	S385	7/8	0.1-0.1	1.4	ND	39 N	39 N			No	BSL
7440-23-5	Sodium	1,230	J	3,870	J	mg/kg	S384	8/8	N/A	3,870	277	N/A	N/A			No	NUT
7440-28-0	Thallium	-		-		mg/kg	N/A	0/8	0.64-1.1	ND	0.83	0.55 N	0.52 N			No	IFD
7440-62-2	Vanadium	6.2		13		mg/kg	S385	8/8	N/A	13	21	55 N	55 N			No	BSL
7440-66-6	Zinc	65.2		192		mg/kg	S383	8/8	N/A	192	104	2,300 N	23,00 N			No	BSL
VOCs																	
67-64-1	Acetone	230	J	240	J	µg/kg	S384	2/8	20-110	240		782,000 N	160,000 N			No	BSL
71-43-2	Benzene	3.9	J	160	J	µg/kg	S384	6/8	6.9-8.3	160		12,000 C	650 C			No	BSL
75-27-4	Bromodichloromethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		10,000 C	1,000 C			No	IFD
75-25-2	Bromoform	-		-		µg/kg	N/A	0/8	6.9-15	ND		81,000 C	62,000 C			No	IFD
74-83-9	Bromomethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		11,000 N	390 N			No	IFD
78-93-3	2-Butanone	4.2	J	51	J	µg/kg	S384	7/8	19-19	51		4,693,000 N	730,000 N			No	BSL
75-15-0	Carbon disulfide	2.8	J	8.4	J	µg/kg	S384	3/8	14-30	8.4		782,000 N	36,000 N			No	BSL
56-23-5	Carbon tetrachloride	-		-		µg/kg	N/A	0/8	6.9-15	ND		4,900 C	210 N			No	IFD
108-90-7	Chlorobenzene	10	J	3,500		µg/kg	S384	7/7	N/A	3,500		156,000 N	15,000 N			No	BSL
75-00-3	Chloroethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		220,000 C	3,000 C			No	IFD
67-66-3	Chloroform	-		-		µg/kg	N/A	0/8	6.9-15	ND		78,000 N	39 N			No	IFD
74-87-3	Chloromethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		49,000 C	1,200 C			No	IFD
124-48-1	Dibromochloromethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		7,600 C	1,100 C			No	IFD
75-34-3	1,1-Dichloroethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		782,000 N	59,000 N			No	IFD

Table 2.7
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Onondaga Lake

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107-06-2	1,2-Dichloroethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		7,000 C	350 C			No	IFD
75-35-4	1,1-Dichloroethene	-		-		µg/kg	N/A	0/8	6.9-15	ND		1,100 C	54 C			No	IFD
156-59-2	cis-1,2-Dichloroethene	2.0	*J*	2.0	*J*	µg/kg	S384	1/8	6.9-15	2.0		78,000 N	4,300 N			No	BSL
156-60-5	trans-1,2-Dichloroethene	-		-		µg/kg	N/A	0/8	6.9-15	ND		156,000 N	6,300 N			No	IFD
78-87-5	1,2-Dichloropropane	-		-		µg/kg	N/A	0/8	6.9-15	ND		9,400 C	350 C			No	IFD
10061-01-5	cis-1,3-Dichloropropene	-		-		µg/kg	N/A	0/8	6.9-15	ND		6,400 C [e]	700 C [e]			No	IFD
10061-02-6	trans-1,3-Dichloropropene	-		-		µg/kg	N/A	0/8	6.9-15	ND		6,400 C [e]	700 C [e]			No	IFD
100-41-4	Ethylbenzene	7.0	*J*	62	*J*	µg/kg	S384	6/8	6.9-8.3	62		782,000 N	230,000 sat			No	BSL
591-78-6	2-Hexanone	-		-		µg/kg	N/A	0/8	14-30	ND		313,000 N	N/A			No	IFD
108-10-1	4-Methyl-2-pentanone	-		-		µg/kg	N/A	0/8	14-30	ND		626,000 N	79,000 N			No	IFD
75-09-2	Methylene chloride	-		-		µg/kg	N/A	0/8	6.9-15	ND		85,000 C	8,900 C			No	IFD
100-42-5	Styrene	2.8	*J*	6.4	*J*	µg/kg	S385	3/8	6.9-15	6.4		1,564,000 N	1,700,000 sat			No	BSL
79-34-5	1,1,2,2-Tetrachloroethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		3,200 C	380 C			No	IFD
127-18-4	Tetrachloroethene	-		-		µg/kg	N/A	0/8	6.9-15	ND		12,000 C	5,700 C			No	IFD
108-88-3	Toluene	-		-		µg/kg	N/A	0/8	6.9-39	ND		1,564,000 N	520,000 sat			No	IFD
71-55-6	1,1,1-Trichloroethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		2,190,000 N	63,000 N			No	IFD
79-00-5	1,1,2-Trichloroethane	-		-		µg/kg	N/A	0/8	6.9-15	ND		11,000 C	840 C			No	IFD
79-01-6	Trichloroethene	-		-		µg/kg	N/A	0/8	6.9-15	ND		47,000 N	2,300 N			No	IFD
75-01-4	Vinyl chloride	-		-		µg/kg	N/A	0/8	6.9-15	ND		90 C	150 C			No	IFD
1330-20-7	Sum of Xylenes	126	*J*	126	*J*	µg/kg	S384	1/8	6.9-25.5	126		15,643,000 N [f]	210,000 sat [f]			No	BSL
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/8	250-4300	ND		2,346,000 N	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/8	49-830	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/8	49-830	ND		580 C	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	440	*J*	1,800	*J*	µg/kg	S384 & S386	5/8	49-600	1,800		46,000 C	35,000 C			No	BSL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	49-830	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/8	49-830	ND		1,564,000 N	1,200,000 N			No	IFD
86-74-8	Carbazole	450		2,600		µg/kg	S384	5/8	49-420	2,600		32,000 C	24,000 C			No	BSL
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/8	250-4300	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	-		-		µg/kg	N/A	0/8	49-830	ND		31,000 N	24,000 N			No	IFD
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/8	49-830	ND		626,000 N	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/8	49-830	ND		39,000 N	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	49-830	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	280		1,900		µg/kg	S384	4/8	49-600	1,900		31,000 N	29,000 N			No	BSL
95-50-1	1,2-Dichlorobenzene	450		5,800		µg/kg	S383	8/8	N/A	5,800		704,000 N	370,000 sat			No	BSL
541-73-1	1,3-Dichlorobenzene	62	*J*	6,200		µg/kg	S385	7/8	830-830	6,200		235,000 N	1,300 N			**Yes**	ASL
106-46-7	1,4-Dichlorobenzene	920	*J*	10,000		µg/kg	S383	8/8	N/A	10,000		27,000 C	3,400 C			**Yes**	ASL
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/8	49-830	ND		1,400 C	1,100 C			No	IFD
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/8	250-4300	ND		23,000 N	18,000 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/8	49-830	ND		6,257,000 N	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/8	49-830	ND		78,214,000 N	100,000,000 max			No	IFD
105-67-9	2,4-Dimethylphenol	-		-		µg/kg	N/A	0/8	250-4300	ND		156,000 N	120,000 N			No	IFD
84-74-2	Di-n-butyl phthalate	-		-		µg/kg	N/A	0/8	49-830	ND		782,000 N	610,000 N			No	IFD
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/8	1300-21000	ND		16,000 N	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/8	250-4300	ND		16,000 N	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/8	250-4300	ND		7,800 N	6,100 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/8	49-830	ND		156,000 N	120,000 N			No	IFD

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Onondaga Lake

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118-74-1	Hexachlorobenzene	4.0		5,355	J	µg/kg	S385	10/11	4-420	5,355		400 C	300 C			Yes	ASL
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/8	49-830	ND		1,600 N	1,800 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/8	250-4300	ND		47,000 N	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/8	49-830	ND		7,800 N	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/8	49-830	ND		672,000 C	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/8	1300-21000	ND		7,800 N	N/A			No	IFD
95-48-7	2-Methylphenol	-		-		µg/kg	N/A	0/8	49-830	ND		391,000 N	310,000 N			No	IFD
106-44-5	4-Methylphenol	130		655		µg/kg	S385	2/8	49-830	655		39,000 N	31,000 N			No	BSL
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/8	100-1700	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/8	1300-21000	ND		N/A	350 N [g]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/8	1300-21000	ND		N/A	350 N [g]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/8	49-830	ND		3,900 N	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/8	250-4300	ND		N/A	49,000 N [h]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/8	1300-21000	ND		63,000 N	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/8	250-4300	ND		13 C	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/8	49-830	ND		91 C	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/8	49-830	ND		130,000 C	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/8	49-830	ND		9,100 C	2,900 C			No	IFD
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/8	1300-21000	ND		5,300 C	3,000 C			No	IFD
108-95-2	Phenol	89	J	2,825		µg/kg	S385	6/8	580-830	2,825		4,693,000 N	3,700,000 N			No	BSL
120-82-1	1,2,4-Trichlorobenzene	160		18,000		µg/kg	S385	8/8	N/A	18,000		78,000 N	65,000 N			No	BSL
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/8	250-4300	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/8	250-4300	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	300		2,500		µg/kg	S384	6/8	49-54	2,500		469,000 N	370,000 N			No	BSL
208-96-8	Acenaphthylene	170	J	1,900		µg/kg	S384	8/8	N/A	1,900		156,000 N [i]	5,600 N [i]			No	BSL
120-12-7	Anthracene	300	J	10,000		µg/kg	S384	7/8	420-420	10,000		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	160	J	14,000		µg/kg	S384	8/8	N/A	14,000		870 C	620 C			Yes	ASL
50-32-8	Benzo(a)pyrene	180	J	13,000		µg/kg	S384	8/8	N/A	13,000		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	220	J	11,000		µg/kg	S384	8/8	N/A	11,000		870 C	620 C			Yes	ASL
191-24-2	Benzo(g,h,i)perylene	160	J	6,800		µg/kg	S384 & S385	8/8	N/A	6,800		156,000 N [i]	5,600 N [i]			Yes	ASL
207-08-9	Benzo(k)fluoranthene	200	J	10,000		µg/kg	S384	8/8	N/A	10,000		8,700 C	6,200 C			Yes	ASL
218-01-9	Chrysene	230	J	15,000		µg/kg	S384	8/8	N/A	15,000		87,000 C	62,000 C			No	BSL
53-70-3	Dibenz(a,h)anthracene	66	J	3,300		µg/kg	S385	8/8	N/A	3,300		87 C	62 C			Yes	ASL
206-44-0	Fluoranthene	330	J	33,000		µg/kg	S384	8/8	N/A	33,000		313,000 N	230,000 N			No	BSL
86-73-7	Fluorene	315		2,700		µg/kg	S384	5/8	49-600	2,700		313,000 N	260,000 N			No	BSL
193-39-5	Indeno(1,2,3-cd)pyrene	120	J	7,100		µg/kg	S384	8/8	N/A	7,100		870 C	620 C			Yes	ASL
91-57-6	2-Methylnaphthalene	330		1,300		µg/kg	S384	5/8	49-420	1,300		156,000 N	5,600 N [i]			No	BSL
91-20-3	Naphthalene	340	J	5,100		µg/kg	S384	8/8	N/A	5,100		156,000 N	5,600 N			No	BSL
85-01-8	Phenanthrene	190	J	22,000		µg/kg	S384	8/8	N/A	22,000		156,000 N [i]	5,600 N [i]			Yes	ASL
129-00-0	Pyrene	310	J	26,000		µg/kg	S384	7/8	420-420	26,000		235,000 N	230,000 N			No	BSL
Pesticides																	
309-00-2	Aldrin	3.4	J	50	J	µg/kg	S385	6/8	1.07-5.43	50		38 C	29 C			Yes	ASL
319-84-6	alpha-BHC	2.4	J	2.5	J	µg/kg	S384	2/5	1.01-1.1	2.5		100 C	90 C			No	BSL
319-85-7	beta-BHC	1.7	J	5.9	J	µg/kg	S385	2/8	1.05-1.1	5.9		350 C	320 C			No	BSL
319-86-8	delta-BHC	1.8	J	10	J	µg/kg	S385	5/5	N/A	10		350 C [j]	320 C [j]			No	BSL
58-89-9	gamma-BHC (Lindane)	1.3	J	6.3	J	µg/kg	S384	4/6	1.05-1.1	6.3		490 C	440 C			No	BSL
57-74-9	Sum of Chlordanes	1.8	J	30	J	µg/kg	S384	7/8	1.09-1.09	30		1,800 C	1,600 C			No	BSL

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	72-54-8	4,4'-DDD	-		-		µg/kg	N/A	0/8	1.01-1.1	ND		2,700 C	2,400 C [k]			No	IFD
	72-55-9	4,4'-DDE	3.4	J	17	J	µg/kg	S385	5/5	N/A	17		1,900 C	1,700 C [k]			No	BSL
	50-29-3	4,4'-DDT	3.5	J	51	J	µg/kg	S383	6/6	N/A	51		1,900 C	1,700 C [k]			No	BSL
	60-57-1	Dieldrin	2.0	J	39		µg/kg	S383	8/8	N/A	39		40 C	30 C			Yes	ASL
	959-98-8	Endosulfan I	8.8	J	11	J	µg/kg	S384	2/8	1.01-1.1	11		47,000 N [l]	37,000 N [l]			No	BSL
	33213-65-9	Endosulfan II	-		-		µg/kg	N/A	0/6	1.01-1.1	ND		47,000 N [l]	37,000 N [l]			No	IFD
	1031-07-8	Endosulfan sulfate	-		-		µg/kg	N/A	0/0	N/A	ND		47,000 N [l]	37,000 N [l]			No	IFD
	72-20-8	Endrin	13		13		µg/kg	S383	1/8	1.01-1.1	13		2,300 N	1,800 N			No	BSL
	7421-93-4	Endrin aldehyde	-		-		µg/kg	N/A	0/6	1.01-1.1	ND		2,300 N [m]	1,800 N [m]			No	IFD
	53494-70-5	Endrin ketone	3.5	J	17	J	µg/kg	S384	4/8	1.01-1.1	17		2,300 N [m]	1,800 N [m]			No	BSL
	76-44-8	Heptachlor	-		-		µg/kg	N/A	0/8	1.01-1.1	ND		140 C	110 C			No	IFD
	1024-57-3	Heptachlor epoxide	3.3		34		µg/kg	S385	5/8	1.08-1.1	34		70 C	53 C			No	BSL
	72-43-5	Methoxychlor	12	J	12	J	µg/kg	S385	1/7	1.05-1.1	12		39,000 N	31,000 N			No	BSL
	8001-35-2	Toxaphene	-		-		µg/kg	N/A	0/8	101-110	ND		580 C	440 C			No	IFD
PCBs																		
	12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/8	52.5-54.9	ND		550 N	390 N			No	IFD
	11104-28-2	Aroclor 1221	-		-		µg/kg	N/A	0/8	52.5-54.9	ND		320 C	220 C			No	IFD
	11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/8	52.5-54.9	ND		320 C	220 C			No	IFD
	53469-21-9	Aroclor 1242	49	J	1,130	J	µg/kg	S385	8/8	N/A	1,130		320 C	220 C			Yes	ASL
	12672-29-6	Aroclor 1248	-		-		µg/kg	N/A	0/8	52.5-54.9	ND		320 C	220 C			No	IFD
	11097-69-1	Aroclor 1254	50	J	750	J	µg/kg	S383	7/8	52.7-52.7	750		160 N	110 N			Yes	ASL
	11096-82-5	Aroclor 1260	53	J	576	J	µg/kg	S386	8/8	N/A	576		320 C	220 C			Yes	ASL
		Aroclor 1268	-		-		µg/kg	N/A	0/8	52.5-54.9	ND		320 C [n]	220 C [n]			No	IFD
	1336-36-3	Sum of PCBs	171		1,819		µg/kg	S385	8/8	N/A	1,819		320 C	220 C			Yes	ASL
PCDD/PCDFs																		
		TEQ as 2,3,7,8-TCDD	123		1,086		ng/kg	S385	8/8	N/A	1,086		4.3 C [o]	3.9 C [o]			Yes	ASL

Notes: All results reported as dry weight.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable
ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Rationale Codes:
Selection Reason: ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available

Deletion Reason:
BSL – below screening level
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] Background values derived from sediment from Otisco Lake (OT1-OT7) as twice the mean value.
[b] Screening toxicity values for sediment are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.

Table 2.7
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection

[c] Screening toxicity values for sediment are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] Criterion for cis and trans is 1,3-Dichloropropene (however, there were no detects, so summing was not necessary).
[f] This default screening value is for total xylenes.
[g] This default screening value is for 2-Nitroaniline.
[h] This default screening value is for 4-Nitrophenol.
[i] This default screening value is for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[j] This default screening value is for Technical HCH (BHC).
[k] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[l] This default non-carcinogenic screening value is that for endosulfan.
[m] This default non-carcinogenic screening value is that for endrin.
[n] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[o] This default carcinogenic screening value for the PCDD/PCDFs is 2,3,7,8-TCDD.
[p] 2000 samples were collected at 0-0.15 and 0.15-0.30 meter intervals. The 2000 data is used as discrete, individual data points for the screening. Discussion is in Section 3.2
[q] Mercury (inorganic) and methylmercury concentrations in wetlands sediment estimated from total mercury concentration data (as shown in Appendix A.4 and A.5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 2.8
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Surface Sediments
Exposure Medium:	Surface Sediments
Exposure Point:	**Surface soils from Onondaga Lake dredge spoils (0 to 3.5 ft)**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	8,030	J	12,100		mg/kg	S440	8/8	N/A	12,100		7,800 N	7,600 N			Yes	ASL
7440-36-0	Antimony	0.24		0.40	J	mg/kg	S439	7/8	0.23-0.23	0.40		3.1 N	3.1 N			No	BSL
7440-38-2	Arsenic	3.2		8.4		mg/kg	S439 & S440	8/8	N/A	8.4		0.43 C	0.39 C			Yes	ASL
7440-39-3	Barium	66.6		78	J	mg/kg	S441	8/8	N/A	78		550 N	540 N			No	BSL
7440-41-7	Beryllium	0.39		0.55		mg/kg	S440	8/8	N/A	0.55		16 N	15 N			No	BSL
7440-43-9	Cadmium	-		-		mg/kg	N/A	0/8	0.03-0.04	ND		3.9 N	3.7 N			No	IFD
7440-70-2	Calcium	70,200		163,000		mg/kg	S441	8/8	N/A	163,000		N/A	N/A			No	NUT
7440-47-3	Chromium	12.2	J	29	J	mg/kg	S436	8/8	N/A	29		23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	3.9		4.8		mg/kg	S440	8/8	N/A	4.8		160 N	470 N			No	BSL
7440-50-8	Copper	14.5		26		mg/kg	S437	8/8	N/A	26		310 N	290 N			No	BSL
74-90-8	Cyanide	-		-		mg/kg	N/A	0/8	0.57-0.67	ND		160 N	1.1 N			No	IFD
7439-89-6	Iron	10,800		17,100		mg/kg	S440	8/8	N/A	17,100		4,700 N	2,300 N			Yes	ASL
7439-92-1	Lead	8.2		14		mg/kg	S438 & S439	8/8	N/A	14		N/A	400 N			No	BSL
7439-95-4	Magnesium	9,690		19,000		mg/kg	S443	8/8	N/A	19,000		N/A	N/A			No	NUT
7439-96-5	Manganese	246		354		mg/kg	S442	8/8	N/A	354		160 N	180 N			Yes	ASL
7439-97-6	Total mercury	0.054	J	4.0		mg/kg	S438	7/8	0.03-0.03	4.0		2.3 N	2.3 N			Yes	ASL
7440-02-0	Nickel	12		17		mg/kg	S440	8/8	N/A	17		160 N	160 N			No	BSL
7440-09-7	Potassium	2,370		3,440		mg/kg	S440	8/8	N/A	3,440		N/A	N/A			No	NUT
7782-49-2	Selenium	0.71		1.4		mg/kg	S439	8/8	N/A	1.4		39 N	39 N			No	BSL
7440-22-4	Silver	-		-		mg/kg	N/A	0/8	0.09-0.1	ND		39 N	39 N			No	IFD
7440-23-5	Sodium	229		521	J	mg/kg	S436	8/8	N/A	521		N/A	N/A			No	NUT
7440-28-0	Thallium	-		-		mg/kg	N/A	0/8	0.56-0.65	ND		0.55 N	0.52 N			No	IFD
7440-62-2	Vanadium	15		29		mg/kg	S436	8/8	N/A	29		55 N	55 N			No	BSL
7440-66-6	Zinc	30.1		50		mg/kg	S439	8/8	N/A	50		2,300 N	2,300 N			No	BSL
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/8	190-220	ND		2,346,000 N	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/8	38-43	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/8	38-43	ND		580 C	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	47	J	310	J	µg/kg	S441	8/8	N/A	310		46000 C	35000 C			No	BSL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	38-43	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/8	38-43	ND		1,564,000 N	1,200,000 N			No	IFD
86-74-8	Carbazole	-		-		µg/kg	N/A	0/8	38-43	ND		32,000 C	24,000 C			No	IFD
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/8	190-220	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	-		-		µg/kg	N/A	0/8	38-43	ND		31,000 N	24,000 N			No	IFD
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/8	38-43	ND		626,000 N	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/8	38-43	ND		39,000 N	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/8	38-43	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	-		-		µg/kg	N/A	0/8	38-43	ND		31,000 N	29,000 N			No	IFD
95-50-1	1,2-Dichlorobenzene	51		51		µg/kg	S440	1/8	38-43	51		704,000 N	370,000 sat			No	BSL
541-73-1	1,3-Dichlorobenzene	-		-		µg/kg	N/A	0/8	38-43	ND		235,000 N	1,300 N			No	IFD
106-46-7	1,4-Dichlorobenzene	-		-		µg/kg	N/A	0/8	38-43	ND		27,000 C	3,400 C			No	IFD
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/8	38-43	ND		1,400 C	1,100 C			No	IFD

Table 2.8
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/8	190-220	ND		23,000 N	18,000 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/8	38-43	ND		6,257,000 N	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/8	38-43	ND		78,214,000 N	100,000,000 max			No	IFD
105-67-9	2,4-Dimethylphenol	-		-		µg/kg	N/A	0/8	190-220	ND		156,000 N	120,000 N			No	IFD
84-74-2	Di-n-butyl phthalate	-		-		µg/kg	N/A	0/8	38-43	ND		782,000 N	610,000 N			No	IFD
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/8	970-1100	ND		16,000 N	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/8	190-220	ND		16,000 N	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/8	190-220	ND		7,800 N	6,100 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/8	38-43	ND		156,000 N	120,000 N			No	IFD
118-74-1	Hexachlorobenzene (GC/MS)	410		410		µg/kg	S440	1/8	38-43	410		400 C	300 C			Yes	ASL
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/8	38-43	ND		1,600 N	1,800 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/8	190-220	ND		47,000 N	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/8	38-43	ND		7,800 N	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/8	38-43	ND		672,000 C	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/8	970-1100	ND		7,800 N	N/A			No	IFD
95-48-7	2-Methylphenol	-		-		µg/kg	N/A	0/8	38-43	ND		391,000 N	310,000 N			No	IFD
106-44-5	4-Methylphenol	-		-		µg/kg	N/A	0/8	38-43	ND		39,000 N	31,000 N			No	IFD
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/8	76-88	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/8	970-1100	ND		N/A	350 N [e]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/8	970-1100	ND		N/A	350 N [e]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/8	38-43	ND		3,900 N	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/8	190-220	ND		N/A	49,000 N [f]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/8	970-1100	ND		63,000 N	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/8	190-220	ND		13 C	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/8	38-43	ND		91 C	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/8	38-43	ND		130,000 C	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/8	38-43	ND		9,100 C	2,900 C			No	IFD
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/8	970-1100	ND		5,300 C	3,000 C			No	IFD
108-95-2	Phenol	-		-		µg/kg	N/A	0/8	38-43	ND		4,693,000 N	3,700,000 N			No	IFD
120-82-1	1,2,4-Trichlorobenzene	-		-		µg/kg	N/A	0/8	38-43	ND		78,000 N	65,000 N			No	IFD
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/8	190-220	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/8	190-220	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	-		-		µg/kg	N/A	0/8	38-43	ND		469,000 N	370,000 N			No	IFD
208-96-8	Acenaphthylene	-		-		µg/kg	N/A	0/8	38-43	ND		156,000 N [g]	5,600 N [g]			No	IFD
120-12-7	Anthracene	53		53		µg/kg	S440	1/8	38-43	53		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	47		130		µg/kg	S440	4/8	38-40	130		870 C	620 C			No	BSL
50-32-8	Benzo(a)pyrene	44	*J*	130		µg/kg	S440	4/8	38-40	130		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	77		110		µg/kg	S440	2/8	38-43	110		870 C	620 C			No	BSL
191-24-2	Benzo(g,h,i)perylene	56		67		µg/kg	S440	2/8	38-43	67		156,000 N [g]	5,600 N [g]			No	BSL
207-08-9	Benzo(k)fluoranthene	73		110		µg/kg	S440	2/8	38-43	110		8,700 C	6,200 C			No	BSL
218-01-9	Chrysene	41		140		µg/kg	S440	6/8	38-38	140		87,000 C	62,000 C			No	BSL
53-70-3	Dibenz(a,h)anthracene	-		-		µg/kg	N/A	0/8	38-43	ND		87 C	62 C			No	IFD
206-44-0	Fluoranthene	38	*J*	290		µg/kg	S440	7/8	38-38	290		313,000 N	230,000 N			No	BSL
86-73-7	Fluorene	-		-		µg/kg	N/A	0/8	38-43	ND		313,000 N	260,000 N			No	IFD
193-39-5	Indeno(1,2,3-cd)pyrene	54		71		µg/kg	S440	2/8	38-43	71		870 C	620 C			No	BSL
91-57-6	2-Methylnaphthalene	-		-		µg/kg	N/A	0/8	38-43	ND		156,000 N	5,600 N [g]			No	IFD
91-20-3	Naphthalene	-		-		µg/kg	N/A	0/8	38-43	ND		156,000 N	5,600 N			No	IFD

Table 2.8
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
85-01-8	Phenanthrene	70	*J*	220		µg/kg	S440	3/8	38-43	220		156,000 N [g]	5,600 N [g]			No	BSL
129-00-0	Pyrene	53		220		µg/kg	S440	6/8	38-38	220		235,000 N	230,000 N			No	BSL
PCBs																	
12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/8	51.3-54.6	ND		550 N	390 N			No	IFD
11104-28-2	Aroclor 1221	-		-		µg/kg	N/A	0/8	51.3-54.6	ND		320 C	220 C			No	IFD
11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/8	51.3-54.6	ND		320 C	220 C			No	IFD
53469-21-9	Aroclor 1242	-		-		µg/kg	N/A	0/8	51.3-54.6	ND		320 C	220 C			No	IFD
12672-29-6	Aroclor 1248	-		-		µg/kg	N/A	0/8	51.3-54.6	ND		320 C	220 C			No	IFD
11097-69-1	Aroclor 1254	11	*J*	11	*J*	µg/kg	S438	1/8	51.3-54.6	11		160 N	110 N			No	BSL
11096-82-5	Aroclor 1260	14	*J*	28	*J*	µg/kg	S440	2/8	51.3-54.1	28		320 C	220 C			No	BSL
	Aroclor 1268	-		-		µg/kg	N/A	0/8	51.3-54.6	ND		320 C [h]	220 C [h]			No	IFD
1336-36-3	Sum of PCBs	37		56		µg/kg	S440	3/8	102.6-108.2	56		320 C	220 C			No	BSL
PCDD/PCDFs																	
	TEQ as 2,3,7,8-TCDD	0.43		1.4		ng/kg	S438	4/4	N/A	1.4		4.3 C [i]	3.9 C [i]			No	BSL

Notes: All results reported as dry weight.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable
ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Rationale Codes:

Selection Reason:
ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available

Deletion Reason:
BSL – below screening level
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] N/A
[b] Screening toxicity values for soil are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for soil are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] This default screening value is for 2-Nitroaniline.
[f] This default screening value is for 4-Nitrophenol.
[g] This default screening value is for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[h] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[i] This default carcinogenic screening value for the PCDD/PCDFs is 2,3,7,8-TCDD.

Table 2.9
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Subsurface Soils
Exposure Medium:	Subsurface Soils
Exposure Point:	**All soil samples from Onondaga Lake dredge spoils (0 to 11,7 ft)**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Source	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7429-90-5	Aluminum	1,010		23,300	J	mg/kg	S437	41/41	N/A	23,300		7,800 N	7,600 N			Yes	ASL
7440-36-0	Antimony	0.24		1.3	J	mg/kg	S439	31/41	0.22-0.47	1.3		3.1 N	3.1 N			No	BSL
7440-38-2	Arsenic	0.62		13		mg/kg	S438	41/41	N/A	13		0.43 C	0.39 C			Yes	ASL
7440-39-3	Barium	49.1	J	227		mg/kg	S440	41/41	N/A	227		550 N	540 N			No	BSL
7440-41-7	Beryllium	0.086		1.0		mg/kg	S437	41/41	N/A	1.0		16 N	15 N			No	BSL
7440-43-9	Cadmium	0.070		4.3		mg/kg	S439	21/41	0.03-0.06	4.3		3.9 N	3.7 N			Yes	ASL
7440-70-2	Calcium	25,800		357,000		mg/kg	S440	41/41	N/A	357,000		N/A	N/A			No	NUT
7440-47-3	Chromium	2.8		62	J	mg/kg	S439	41/41	N/A	62		23 N [d]	23 N [d]			Yes	ASL
7440-48-4	Cobalt	0.15		8.2		mg/kg	S443	41/41	N/A	8.2		160 N	470 N			No	BSL
7440-50-8	Copper	1.8		62		mg/kg	S439	41/41	N/A	62		310 N	290 N			No	BSL
74-90-8	Cyanide	0.94		1.3		mg/kg	S440 & S441	8/41	0.55-1.2	1.3		160 N	1.1 N			Yes	ASL
7439-89-6	Iron	1,330		29,600		mg/kg	S437	41/41	N/A	29,600		4,700 N	2,300 N			Yes	ASL
7439-92-1	Lead	2.5		157		mg/kg	S439	40/41	0.33-0.33	157		N/A	400 N			No	BSL
7439-95-4	Magnesium	3,010		19,000		mg/kg	S443	41/41	N/A	19,000		N/A	N/A			No	NUT
7439-96-5	Manganese	106		440		mg/kg	S443	41/41	N/A	440		160 N	180 N			Yes	ASL
7439-97-6	Total mercury	0.052	J	99	J	mg/kg	S437	37/41	0.03-0.04	99		2.3 N	2.3 N			Yes	ASL
7440-02-0	Nickel	1.8		50		mg/kg	S439	41/41	N/A	50		160 N	160 N			No	BSL
7440-09-7	Potassium	220		5,750		mg/kg	S437	41/41	N/A	5,750		N/A	N/A			No	NUT
7782-49-2	Selenium	0.49		2.1		mg/kg	S437	38/41	1.1-1.1	2.1		39 N	39 N			No	BSL
7440-22-4	Silver	0.12		0.88		mg/kg	S439	5/41	0.08-0.19	0.88		39 N	39 N			No	BSL
7440-23-5	Sodium	214		13,000	J	mg/kg	S437	41/41	N/A	13,000		N/A	N/A			No	NUT
7440-28-0	Thallium	0.75		0.75		mg/kg	S436	1/41	0.54-1.2	0.75		0.55 N	0.52 N			Yes	ASL
7440-62-2	Vanadium	1.7		41		mg/kg	S437	41/41	N/A	41		55 N	55 N			No	BSL
7440-66-6	Zinc	12.1		186		mg/kg	S439	41/41	N/A	186		2,300 N	2,300 N			No	BSL
SVOCs																	
100-51-6	Benzyl alcohol	-		-		µg/kg	N/A	0/40	190-2600	ND		2,346,000 N	1,800,000 N			No	IFD
111-91-1	bis(2-chloroethoxy)methane	-		-		µg/kg	N/A	0/40	36-500	ND		N/A	N/A			No	IFD
111-44-4	bis(2-chloroethyl)ether	-		-		µg/kg	N/A	0/40	36-500	ND		580 C	210 C			No	IFD
117-81-7	bis(2-Ethylhexyl)phthalate	41		560	J	µg/kg	S437	36/40	48-500	560		46,000 C	35,000 C			No	BSL
101-55-3	4-Bromophenyl-phenyl ether	-		-		µg/kg	N/A	0/40	36-500	ND		N/A	N/A			No	IFD
85-68-7	Butylbenzyl phthalate	-		-		µg/kg	N/A	0/40	36-500	ND		1,564,000 N	1,200,000 N			No	IFD
86-74-8	Carbazole	43		2,700	J	µg/kg	S443	5/40	36-85	2,700		32,000 C	24,000 C			No	BSL
59-50-7	4-Chloro-3-methylphenol	-		-		µg/kg	N/A	0/40	190-2600	ND		N/A	N/A			No	IFD
106-47-8	4-Chloroaniline	98	J	98	J	µg/kg	S437	1/40	36-500	98		31,000 N	24,000 N			No	BSL
91-58-7	2-Chloronaphthalene	-		-		µg/kg	N/A	0/40	36-500	ND		626,000 N	390,000 N			No	IFD
95-57-8	2-Chlorophenol	-		-		µg/kg	N/A	0/40	36-500	ND		39,000 N	6,300 N			No	IFD
7005-72-3	4-Chlorophenyl-phenyl ether	-		-		µg/kg	N/A	0/40	36-500	ND		N/A	N/A			No	IFD
132-64-9	Dibenzofuran	-		-		µg/kg	N/A	0/40	36-500	ND		31,000 N	29,000 N			No	IFD
95-50-1	1,2-Dichlorobenzene	51		97	J	µg/kg	S440	4/40	36-500	97		704,000 N	370,000 sat			No	BSL
541-73-1	1,3-Dichlorobenzene	79	J	130		µg/kg	S437	5/40	36-500	130		235,000 N	1,300 N			No	BSL
106-46-7	1,4-Dichlorobenzene	-		-		µg/kg	N/A	0/40	36-500	ND		27,000 C	3,400 C			No	IFD
91-94-1	3,3'-Dichlorobenzidine	-		-		µg/kg	N/A	0/40	36-500	ND		1,400 C	1,100 C			No	IFD

Table 2.9
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values		Potential ARAR/ TBC Source	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
												Region III Residential Soils [b]	Region IX Residential Soils [c]				
120-83-2	2,4-Dichlorophenol	-		-		µg/kg	N/A	0/40	190-2600	ND		23,000 N	18,000 N			No	IFD
84-66-2	Diethyl phthalate	-		-		µg/kg	N/A	0/40	36-500	ND		6,257,000 N	4,900,000 N			No	IFD
131-11-3	Dimethyl phthalate	-		-		µg/kg	N/A	0/40	36-500	ND		78,214,000 N	100,000,000 max			No	IFD
105-67-9	2,4-Dimethylphenol	-		-		µg/kg	N/A	0/40	190-2600	ND		156,000 N	120,000 N			No	IFD
84-74-2	Di-n-butyl phthalate	54	J	110	J	µg/kg	S439	6/40	36-500	110		782,000 N	610,000 N			No	BSL
51-28-5	2,4-Dinitrophenol	-		-		µg/kg	N/A	0/40	930-13000	ND		16,000 N	12,000 N			No	IFD
121-14-2	2,4-Dinitrotoluene	-		-		µg/kg	N/A	0/40	190-2600	ND		16,000 N	12,000 N			No	IFD
606-20-2	2,6-Dinitrotoluene	-		-		µg/kg	N/A	0/40	190-2600	ND		7,800 N	6,100 N			No	IFD
117-84-0	Di-n-octyl phthalate	-		-		µg/kg	N/A	0/40	36-500	ND		156,000 N	120,000 N			No	IFD
118-74-1	Hexachlorobenzene	55		598	J	µg/kg	S438	9/40	36-500	598		400 C	300 C			Yes	ASL
87-68-3	Hexachlorobutadiene	-		-		µg/kg	N/A	0/40	36-500	ND		1,600 N	1,800 N			No	IFD
77-47-4	Hexachlorocyclopentadiene	-		-		µg/kg	N/A	0/40	190-2600	ND		47,000 N	42,000 N			No	IFD
67-72-1	Hexachloroethane	-		-		µg/kg	N/A	0/40	36-500	ND		7,800 N	6,100 N			No	IFD
78-59-1	Isophorone	-		-		µg/kg	N/A	0/40	36-500	ND		672,000 C	510,000 C			No	IFD
534-52-1	2-Methyl-4,6-dinitrophenol	-		-		µg/kg	N/A	0/40	930-13000	ND		7,800 N	N/A			No	IFD
95-48-7	2-Methylphenol	-		-		µg/kg	N/A	0/40	36-500	ND		391,000 N	310,000 N			No	IFD
106-44-5	4-Methylphenol	-		-		µg/kg	N/A	0/40	36-500	ND		39,000 N	31,000 N			No	IFD
88-74-4	2-Nitroaniline	-		-		µg/kg	N/A	0/40	73-1000	ND		N/A	350 N			No	IFD
99-09-2	3-Nitroaniline	-		-		µg/kg	N/A	0/40	930-13000	ND		N/A	350 N [e]			No	IFD
100-01-6	4-Nitroaniline	-		-		µg/kg	N/A	0/40	930-13000	ND		N/A	350 N [e]			No	IFD
98-95-3	Nitrobenzene	-		-		µg/kg	N/A	0/40	36-500	ND		3,900 N	2,000 N			No	IFD
88-75-5	2-Nitrophenol	-		-		µg/kg	N/A	0/40	190-2600	ND		N/A	49,000 N [f]			No	IFD
100-02-7	4-Nitrophenol	-		-		µg/kg	N/A	0/40	930-13000	ND		63,000 N	49,000 N			No	IFD
62-75-9	N-nitroso dimethylamine	-		-		µg/kg	N/A	0/40	190-2600	ND		13 C	9.5 C			No	IFD
621-64-7	N-nitroso-di-n-propylamine	-		-		µg/kg	N/A	0/40	36-500	ND		91 C	69 C			No	IFD
86-30-6	N-nitrosodiphenylamine	-		-		µg/kg	N/A	0/40	36-500	ND		130,000 C	99,000 C			No	IFD
108-60-1	2,2'-Oxybis(1-chloropropane)	-		-		µg/kg	N/A	0/40	36-500	ND		9,100 C	2,900 C			No	IFD
87-86-5	Pentachlorophenol	-		-		µg/kg	N/A	0/40	930-13000	ND		5,300 C	3,000 C			No	IFD
108-95-2	Phenol	-		-		µg/kg	N/A	0/40	36-500	ND		4,693,000 N	3,700,000 N			No	IFD
120-82-1	1,2,4-Trichlorobenzene	-		-		µg/kg	N/A	0/40	36-500	ND		78,000 N	65,000 N			No	IFD
95-95-4	2,4,5-Trichlorophenol	-		-		µg/kg	N/A	0/40	190-2600	ND		782,000 N	610,000 N			No	IFD
88-06-2	2,4,6-Trichlorophenol	-		-		µg/kg	N/A	0/40	190-2600	ND		58,000 C	44,000 C			No	IFD
83-32-9	Acenaphthene	43		1,200	J	µg/kg	S443	4/40	36-85	1,200		469,000 N	370,000 N			No	BSL
208-96-8	Acenaphthylene	110	J	110	J	µg/kg	S443	1/40	36-500	110		156,000 N [g]	5,600 N [g]			No	BSL
120-12-7	Anthracene	53		1,900	J	µg/kg	S443	7/40	36-85	1,900		2,346,000 N	2,200,000 N			No	BSL
56-55-3	Benz(a)anthracene	47		22,000	J	µg/kg	S443	20/40	36-81	22,000		870 C	620 C			Yes	ASL
50-32-8	Benzo(a)pyrene	44	J	23,000	J	µg/kg	S443	23/40	36-81	23,000		87 C	62 C			Yes	ASL
205-99-2	Benzo(b)fluoranthene	53	J	20,000	J	µg/kg	S443	22/40	36-81	20,000		870 C	620 C			Yes	ASL
191-24-2	Benzo(g,h,i)perylene	51	J	11,000	J	µg/kg	S443	15/40	36-81	11,000		156,000 N [g]	5,600 N [g]			Yes	ASL
207-08-9	Benzo(k)fluoranthene	56	J	20,000	J	µg/kg	S443	20/40	36-81	20,000		8,700 C	6,200 C			Yes	ASL
218-01-9	Chrysene	41		25,000	J	µg/kg	S443	26/40	36-81	25,000		87,000 C	62,000 C			No	BSL
53-70-3	Dibenz(a,h)anthracene	48		5,200	J	µg/kg	S443	5/40	36-85	5,200		87 C	62 C			Yes	ASL
206-44-0	Fluoranthene	38	J	32,000	J	µg/kg	S443	34/40	38-50	32,000		313,000 N	230,000 N			No	BSL
86-73-7	Fluorene	40		800	J	µg/kg	S443	5/40	36-85	800		313,000 N	260,000 N			No	BSL
193-39-5	Indeno(1,2,3-cd)pyrene	47	J	11,000	J	µg/kg	S443	15/40	36-81	11,000		870 C	620 C			Yes	ASL
91-57-6	2-Methylnaphthalene	-		-		µg/kg	N/A	0/40	36-500	ND		156,000 N	5,600 N [g]			No	IFD
91-20-3	Naphthalene	85		9,028		µg/kg	S436	3/40	36-85	9,028		156,000 N	5,600 N			Yes	ASL
85-01-8	Phenanthrene	50	J	9,500	J	µg/kg	S443	22/40	36-81	9,500		156,000 N [g]	5,600 N [g]			Yes	ASL

Table 2.9
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Soils [b]	Screening Toxicity Values: Region IX Residential Soils [c]	Potential ARAR/ TBC Source	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
129-00-0	Pyrene	53		25,000	J	µg/kg	S443	31/40	36-50	25,000		235,000 N	230,000 N			No	BSL
Pesticides																	
309-00-2	Aldrin	1.2	J	1.2	J	µg/kg	S438	1/1	N/A	1.2		38 C	29 C			No	BSL
319-84-6	alpha-BHC	-		-		µg/kg	N/A	0/0	N/A	ND		100 C	90 C			No	IFD
319-85-7	beta-BHC	3.2	J	3.2	J	µg/kg	S438	1/1	N/A	3.2		350 C	320 C			No	BSL
319-86-8	delta-BHC	-		-		µg/kg	N/A	0/0	N/A	ND		350 C [h]	320 C [h]			No	IFD
58-89-9	gamma-BHC (Lindane)	-		-		µg/kg	N/A	0/0	N/A	ND		490 C	440 C			No	IFD
57-74-9	Sum of Chlordanes	3.0	J	3.0	J	µg/kg	S438	1/1	N/A	3.0		1,800 C	1,600 C			No	BSL
72-54-8	4,4'-DDD	-		-		µg/kg	N/A	0/0	N/A	ND		2,700 C	2,400 C [i]			No	IFD
72-55-9	4,4'-DDE	-		-		µg/kg	N/A	0/0	N/A	ND		1,900 C	1,700 C [i]			No	IFD
50-29-3	4,4'-DDT	1.5	J	1.5	J	µg/kg	S438	1/1	N/A	1.5		1,900 C	1,700 C [i]			No	BSL
60-57-1	Dieldrin	3.8	J	3.8	J	µg/kg	S438	1/1	N/A	3.8		40 C	30 C			No	BSL
959-98-8	Endosulfan I	-		-		µg/kg	N/A	0/1	1.08-1.08	ND		47,000 N [j]	37,000 N [j]			No	IFD
33213-65-9	Endosulfan II	-		-		µg/kg	N/A	0/0	N/A	ND		47,000 N [j]	37,000 N [j]			No	IFD
1031-07-8	Endosulfan sulfate	-		-		µg/kg	N/A	0/0	N/A	ND		47,000 N [j]	37,000 N [j]			No	IFD
72-20-8	Endrin	-		-		µg/kg	N/A	0/0	N/A	ND		2,300 N	1,800 N			No	IFD
7421-93-4	Endrin aldehyde	2.8	J	2.8	J	µg/kg	S438	1/1	N/A	2.8		2,300 N [k]	1,800 N [k]			No	BSL
53494-70-5	Endrin ketone	-		-		µg/kg	N/A	0/0	N/A	ND		2,300 N [k]	1,800 N [k]			No	IFD
76-44-8	Heptachlor	-		-		µg/kg	N/A	0/1	1.08-1.08	ND		140 C	110 C			No	IFD
1024-57-3	Heptachlor epoxide	3.8	J	3.8	J	µg/kg	S438	1/1	N/A	3.8		70 C	53 C			No	BSL
72-43-5	Methoxychlor	-		-		µg/kg	N/A	0/0	N/A	ND		39,000 N	31,000 N			No	IFD
8001-35-2	Toxaphene	-		-		µg/kg	N/A	0/1	108-108	ND		580 C	440 C			No	IFD
PCBs																	
12674-11-2	Aroclor 1016	-		-		µg/kg	N/A	0/40	50.5-54.8	ND		550 N	390 N			No	IFD
11104-28-2	Aroclor 1221	-		-		µg/kg	N/A	0/40	50.5-54.8	ND		320 C	220 C			No	IFD
11141-16-5	Aroclor 1232	-		-		µg/kg	N/A	0/40	50.5-54.8	ND		320 C	220 C			No	IFD
53469-21-9	Aroclor 1242	17	J	193	J	µg/kg	S441	17/40	50.5-54.6	193		320 C	220 C			No	BSL
12672-29-6	Aroclor 1248	-		-		µg/kg	N/A	0/40	50.5-54.8	ND		320 C	220 C			No	IFD
11097-69-1	Aroclor 1254	11	J	289	J	µg/kg	S440	20/40	50.5-54.6	289		160 N	110 N			Yes	ASL
11096-82-5	Aroclor 1260	14	J	126	J	µg/kg	S439	3/40	50.5-54.8	126		320 C	220 C			No	BSL
	Aroclor 1268	54	J	487	J	µg/kg	S440	17/40	50.5-54.6	487		320 C [l]	220 C [l]			Yes	ASL
1336-36-3	Sum of PCBs	37		826		µg/kg	S440	22/40	101-109	826		320 C	220 C			Yes	ASL
PCDD/PCDFs																	
	TEQ as 2,3,7,8-TCDD	0.17		69		ng/kg	S440	20/20	N/A	69		4.3 C [m]	3.9 C [m]			Yes	ASL

Notes: All results reported as dry weight.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
max – non-risk-based ceiling limit
N – non-carcinogenic
N/A – not applicable
ND – not detected
sat – non-risk-based concentration calculated based on soil saturation

Table 2.9
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values		Potential ARAR/ TBC Source	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
												Region III Residential Soils [b]	Region IX Residential Soils [c]				

Rationale Codes:

Selection Reason:
- ASL – above screening levels
- BKG – below background levels
- FD – frequent detection
- HIST – infrequent detection but associated historically
- TX – toxicity information available

Deletion Reason:
- BSL – below screening level
- IFD – infrequent detection
- NTX – no toxicity information
- NUT – essential nutrient

[a] N/A
[b] Screening toxicity values for soil are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for soil are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] This default screening value is for 2-Nitroaniline.
[f] This default screening value is for 4-Nitrophenol.
[g] This default screening value is for naphthalene, the non-carcinogenic PAH with the most stringent RBC/PRG.
[h] This default screening value is for Technical HCH (BHC).
[l] These default screening values for DDD, DDE, and DDT are not isomer-specific.
[j] This default non-carcinogenic screening value is that for endosulfan.
[k] This default non-carcinogenic screening value is that for endrin.
[l] This default carcinogenic screening value for Aroclor 1268 is that for PCBs.
[m] This default carcinogenic screening value for the PCDD/PCDFs is 2,3,7,8-TCDD.
[k] 2000 samples were collected at multiple depths up to 11.5 feet. The 2000 data is used as discrete, individual data points for the screening. Discussion is in Section 3.2

Table 2.10
Occurrence, Distribution, and Selection of Contaminants of Potential Concern
Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water
Exposure Point:	**Surface water from Onondaga Lake**

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Tapwater [b]	Screening Toxicity Values: Region IX Residential Tapwater [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection
Inorganics																	
7440-43-9	Cadmium	3.1		3.1		µg/L	W2	1/37	2-2	3.1		1.8 N	1.8 N			Yes	ASL
7440-70-2	Calcium	68,200		174,000		µg/L	W12	37/37	N/A	174,000		N/A	N/A			No	NUT
7440-47-3	Chromium	2.1		4.1	J	µg/L	W2	18/48	2-4	4.1		11 N [d]	11 N [d]			Yes	D-BSL
7440-50-8	Copper	2.0	J	51	J	µg/L	W1	11/37	1-7.4	51		150 N	140 N			No	BSL
7439-89-6	Iron	21.2		596		µg/L	W1	56/57	16-16	596		2,200 N	1100 N			No	BSL
7439-92-1	Lead	1.1		7.7	J	µg/L	W2	12/48	1-2.5	7.7		15 [e]	15 [e]			No	BSL
7439-95-4	Magnesium	20,600		25,900		µg/L	W2	33/33	N/A	25,900		N/A	N/A			No	NUT
7439-96-5	Manganese	3.2		624		µg/L	W1	64/66	10.9-12.8	624		73 N	88 N			Yes	ASL
7439-97-6	Total mercury	2.3		103		ng/L	W55	75/75	N/A	103		370 N [f]	1,100 N			Yes	HIST
22967-92-6	Methylmercury	0.13		5.9		ng/L	W12	75/75	N/A	5.9		370 N	360 N			Yes	HIST
593-74-8	Dimethyl mercury	-		-		ng/L	N/A	0/32	0.0006-0.011	ND		N/A	N/A			No	IFD
7439-97-6	Elemental mercury	0.028		0.31		ng/L	W1	30/32	0.16-0.17	0.31		N/A	1,100 N [g]			No	BSL
	Ionic mercury	0.15		3.3	J	ng/L	W1	32/32	N/A	3.3		1,100 N [h]	1,100 N [g]			No	BSL
7440-02-0	Nickel	3.5	J	15		µg/L	W1R	17/48	4-8	15		73 N	73 N			No	BSL
7440-23-5	Sodium	78,900		238,000		µg/L	W1R & W2	37/37	N/A	238,000		N/A	N/A			No	NUT
7440-66-6	Zinc	2.3	J	128		µg/L	W1R	35/37	14.9-15.7	128		1,100 N	1,100 N			No	BSL
VOCs																	
71-43-2	Benzene	0.11	J	6.3		µg/L	W50	2/48	0.5-1	6.3		0.32 C	0.35 C			Yes	ASL
75-27-4	Bromodichloromethane	0.12	J	0.24	J	µg/L	W50	4/11	0.5-0.5	0.24		0.17 C	0.18 C			Yes	ASL
75-25-2	Bromoform	-		-		µg/L	N/A	0/11	0.5-0.5	ND		8.5 C	8.5 C			No	IFD
74-83-9	Bromomethane	-		-		µg/L	N/A	0/11	1-1	ND		0.85 N	0.87 N			No	IFD
78-93-3	2-Butanone	-		-		µg/L	N/A	0/11	10-10	ND		190 N	190 N			No	IFD
75-15-0	Carbon disulfide	-		-		µg/L	N/A	0/11	0.5-0.5	ND		100 N	100 N			No	IFD
56-23-5	Carbon tetrachloride	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.16 C	0.17 C			No	IFD
108-90-7	Chlorobenzene	0.51		12		µg/L	W50	2/48	0.5-1	12		11 N	11 N			Yes	ASL
75-00-3	Chloroethane	-		-		µg/L	N/A	0/11	1-1	ND		3.6 C	4.6 C			No	IFD
67-66-3	Chloroform	0.13	J	0.85	J	µg/L	W51	11/11	N/A	0.85		0.063 N	0.063 N			Yes	ASL
74-87-3	Chloromethane	-		-		µg/L	N/A	0/11	1-1	ND		2.1 C	1.5 C			No	IFD
124-48-1	Dibromochloromethane	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.13 C	0.13 C			No	IFD
75-34-3	1,1-Dichloroethane	-		-		µg/L	N/A	0/11	0.5-0.5	ND		80 N	81 N			No	IFD
107-06-2	1,2-Dichloroethane	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.12 C	0.12 C			No	IFD
75-35-4	1,1-Dichloroethene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.044 C	0.046 C			No	IFD
156-59-2	cis-1,2-Dichloroethene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		6.1 N	6.1 N			No	IFD
156-60-5	trans-1,2-Dichloroethene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		12 N	12 N			No	IFD
78-87-5	1,2-Dichloropropane	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.16 C	0.16 C			No	IFD
10061-01-5	cis-1,3-Dichloropropene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.44 C [i]	0.4 C [i]			No	IFD
10061-02-6	trans-1,3-Dichloropropene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.44 C [i]	0.4 C [i]			No	IFD
100-41-4	Ethylbenzene	-		-		µg/L	N/A	0/48	0.5-1	ND		130 N	130 N			No	IFD
591-78-6	2-Hexanone	-		-		µg/L	N/A	0/11	5-5	ND		150 N	N/A			No	IFD
108-10-1	4-Methyl-2-pentanone	-		-		µg/L	N/A	0/11	5-5	ND		14 N	16 N			No	IFD
75-09-2	Methylene chloride	-		-		µg/L	N/A	0/11	0.13-0.44	ND		4.1 C	4.3 C			No	IFD
100-42-5	Styrene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		160 N	160 N			No	IFD

Table 2.10
Occurrence, Distribution, and Selection of Contaminants of Concern
Onondaga Lake

CAS Registry Number	Analyte	Minimum Detected Value	Minimum Qualifier	Maximum Detected Value	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value [a]	Screening Toxicity Values: Region III Residential Tapwater [b]	Screening Toxicity Values: Region IX Residential Tapwater [c]	Potential ARAR/ TBC Value	Potential ARAR/ TBC Source	COC Flag	Rationale for Contaminant Deletion or Selection
79-34-5	1,1,2,2-Tetrachloroethane	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.053 C	0.055 C			No	IFD
127-18-4	Tetrachloroethene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		1.1 C	1.1 C			No	IFD
108-88-3	Toluene	0.16	*J*	0.16	*J*	µg/L	W50	1/48	0.5-1	0.16		75 N	72 N			No	D*-BSL
71-55-6	1,1,1-Trichloroethane	-		-		µg/L	N/A	0/11	0.5-0.5	ND		320 N	54 N			No	IFD
79-00-5	1,1,2-Trichloroethane	-		-		µg/L	N/A	0/11	0.5-0.5	ND		0.19 C	0.2 C			No	IFD
79-01-6	Trichloroethene	-		-		µg/L	N/A	0/11	0.5-0.5	ND		1.6 C	1.6 C			No	IFD
75-01-4	Vinyl chloride	-		-		µg/L	N/A	0/11	1-1	ND		0.015 C	0.041 C			No	IFD
1330-20-7	Xylene isomers (total)	0.33	*J*	0.33	*J*	µg/L	W55	1/48	0.5-1	0.33		1,200 N	140 N			No	D*-BSL
SVOCs																	
95-50-1	1,2-Dichlorobenzene	0.11	*J*	3.2		µg/L	W50	4/48	0.5-1	3.2		27 N	37 N			**Yes**	D-BSL
541-73-1	1,3-Dichlorobenzene	1.2	*J*	1.2	*J*	µg/L	W1R	1/37	1-1	1.2		18 N	0.55 N			**Yes**	ASL
106-46-7	1,4-Dichlorobenzene	0.14	*J*	3.4		µg/L	W50	12/48	0.5-1	3.4		0.47 C	0.5 C			**Yes**	ASL
118-74-1	Hexachlorobenzene (GC/MS)	-		-		µg/L	N/A	0/5	0.05-0.05	ND		0.042 C	0.042 C			No	IFD
87-61-6	1,2,3-Trichlorobenzene	2.7	*J*	2.7	*J*	µg/L	W1R	1/37	1-1	2.7		19 N [j]	19 N [j]			No	BSL
120-82-1	1,2,4-Trichlorobenzene	2.4	*J*	2.4	*J*	µg/L	W1R	1/37	1-1	2.4		19 N	19 N			**Yes**	D-BSL
108-70-3	1,3,5-Trichlorobenzene	1.6	*J*	1.6	*J*	µg/L	W1R	1/37	1-1	1.6		19 N [j]	19 N [j]			No	BSL

Notes: All results reported as unfiltered.

– no detected value
C – carcinogenic
COPC – contaminant of potential concern
J – estimated value
N – non-carcinogenic
N/A – not applicable
ND – not detected

Rationale Codes:
Selection Reason: ASL – above screening levels
BKG – below background levels
FD – frequent detection
HIST – infrequent detection but associated historically
TX – toxicity information available
D-BSL – contaminant is below screening for ingestion, but targeted for assessment per RAGS Part E

Deletion Reason:
BSL – below screening level
D*-BSL – contaminant is targeted for assessment per RAGS Part E, but excluded due to infrequent detection and low maximum concentration relative to screening criteria
IFD – infrequent detection
NTX – no toxicity information
NUT – essential nutrient

[a] N/A
[b] Screening toxicity values for surface water are the USEPA Region III RBCs (2001). RBCs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[c] Screening toxicity values for surface water are the USEPA Region IX PRGs (2001). PRGs correspond to 1 X 10^{-6} cancer risk or a hazard quotient of 0.1, whichever is lower.
[d] This default carcinogenic screening value for chromium is that for chromium VI.
[e] National primary drinking water standard for lead, which requires that lead concentrations be less than 15 µg/L in 90 percent of monitored households.
[f] This default non-carcinogenic screening value for total mercury is that for methylmercury.
[g] Criterion for Ionic and Elemental, Region 9 is "Mercury and Compounds."
[h] Criterion for Ionic, Region 3 is "Mercuric Chloride."
[I] Criterion for cis and trans is 1,3-Dichloropropene (however, there were no detects, so summing was not necessary).
[j] This default non-carcinogenic screening value is based on 1,2,4-trichlorobenzene.

Table 3.1
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Fish tissue
Exposure Medium:	Fish tissue
Exposure Point:	**Fish fillet tissue from Onondaga Lake**

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Antimony	mg/kg	5.57E-01	7.97E-01	9.92E-01	2.10E+00		mg/kg	9.9E-01	95% UCL-T	W - Test(2)	9.9E-01	95% UCL-T	W - Test(2)
Arsenic (inorganic)	mg/kg	3.27E-01	3.54E-01	8.03E-02	1.05E+00		mg/kg	8.0E-02	95% UCL-T	W - Test(1)	8.0E-02	95% UCL-T	W - Test(1)
Chromium	mg/kg	4.91E-01	1.36E-01	5.65E-01	7.30E-01		mg/kg	5.7E-01	95% UCL-T	W - Test(2)	5.7E-01	95% UCL-T	W - Test(2)
Cyanide	mg/kg	1.73E+00	4.20E+00	5.69E+00	1.43E+01		mg/kg	5.7E+00	95% UCL-T	W - Test(1)	5.7E+00	95% UCL-T	W - Test(1)
Manganese	mg/kg	9.91E-01	1.58E+00	3.23E+00	5.51E+00		mg/kg	3.2E+00	95% UCL-T	W - Test(1)	3.2E+00	95% UCL-T	W - Test(1)
Mercury (as methylmercury)	mg/kg	1.05E+00	5.20E-01	1.08E+00	5.07E+00		mg/kg	1.1E+00	95% UCL-T	Y Statistic(2)	1.1E+00	95% UCL-T	Y Statistic(2)
Selenium	mg/kg	1.08E+00	7.21E-01	1.47E+00	2.20E+00		mg/kg	1.5E+00	95% UCL-T	W - Test(2)	1.5E+00	95% UCL-T	W - Test(2)
Vanadium	mg/kg	4.75E-01	2.80E-01	6.27E-01	9.70E-01		mg/kg	6.3E-01	95% UCL-T	W - Test(2)	6.3E-01	95% UCL-T	W - Test(2)
Zinc	mg/kg	3.05E+01	2.42E+01	4.37E+01	7.38E+01	*J*	mg/kg	4.4E+01	95% UCL-T	W - Test(2)	4.4E+01	95% UCL-T	W - Test(2)
SVOCs													
bis(2-ethylhexyl)phthalate	mg/kg	7.00E-01	1.07E+00	n<10	2.30E+00		mg/kg	2.3E+00	Max	W - Test(4)	2.3E+00	Max	W - Test(4)
Hexachlorobenzene	mg/kg	1.18E-02	2.31E-02	1.30E-02	1.70E-01		mg/kg	1.3E-02	95% UCL-T	Y - Statistic(1)	1.3E-02	95% UCL-T	Y - Statistic(1)
Pesticides													
2,4'-DDE	mg/kg	3.76E-03	3.74E-03	4.13E-03	2.40E-02		mg/kg	4.1E-03	95% UCL-T	W - Test(1)	4.1E-03	95% UCL-T	W - Test(1)
4,4'-DDD	mg/kg	1.12E-02	1.75E-02	1.33E-02	1.70E-01	*J*	mg/kg	1.3E-02	95% UCL-T	Y - Statistic(1)	1.3E-02	95% UCL-T	Y - Statistic(1)
4,4'-DDE	mg/kg	2.86E-02	4.41E-02	3.44E-02	4.00E-01	*J*	mg/kg	3.4E-02	95% UCL-T	Y - Statistic(1)	3.4E-02	95% UCL-T	Y - Statistic(1)
4,4'-DDT	mg/kg	8.08E-03	1.06E-02	9.49E-03	8.20E-02		mg/kg	9.5E-03	95% UCL-T	Y - Statistic(1)	9.5E-03	95% UCL-T	Y - Statistic(1)
Aldrin	mg/kg	2.32E-03	8.76E-04	2.53E-03	3.00E-03		mg/kg	2.5E-03	95% UCL-T	W - Test(2)	2.5E-03	95% UCL-T	W - Test(2)
delta-BHC	mg/kg	2.31E-03	8.85E-04	2.52E-03	2.80E-03	*J*	mg/kg	2.5E-03	95% UCL-T	W - Test(2)	2.5E-03	95% UCL-T	W - Test(2)
Dieldrin	mg/kg	3.79E-03	4.24E-03	3.82E-03	4.20E-02	*J*	mg/kg	3.8E-03	95% UCL-T	Y - Statistic(1)	3.8E-03	95% UCL-T	Y - Statistic(1)
Heptachlor epoxide	mg/kg	3.55E-03	2.30E-03	4.14E-03	1.00E-02		mg/kg	4.1E-03	95% UCL-T	W - Test(1)	4.1E-03	95% UCL-T	W - Test(1)
Sum of chlordanes	mg/kg	8.39E-03	1.01E-02	9.73E-03	6.10E-02		mg/kg	9.7E-03	95% UCL-T	Y - Statistic(1)	9.7E-03	95% UCL-T	Y - Statistic(1)
PCBs													
Aroclor 1016	mg/kg	2.37E-01	2.82E-01	4.91E-01	1.61E+00		mg/kg	4.9E-01	95% UCL-T	Y - Statistic(1)	4.9E-01	95% UCL-T	Y - Statistic(1)
Aroclor 1242	mg/kg	3.00E-01	3.56E-01	9.59E-01	1.98E+00		mg/kg	9.6E-01	95% UCL-T	W - Test(1)	9.6E-01	95% UCL-T	W - Test(1)
Sum of Low MW PCBs	mg/kg	2.74E-01	3.13E-01	4.79E-01	1.98E+00		mg/kg	4.8E-01	95% UCL-T	Y - Statistic(1)	4.8E-01	95% UCL-T	Y - Statistic(1)
Aroclor 1248	mg/kg	4.70E-01	3.44E-01	n<10	1.10E+00	*J*	mg/kg	1.1E+00	Max	W - Test(4)	1.1E+00	Max	W - Test(4)
Aroclor 1260	mg/kg	2.72E-01	2.16E-01	n<10	7.20E-01	*J*	mg/kg	7.2E-01	Max	W - Test(4)	7.2E-01	Max	W - Test(4)
Aroclors 1254 & 1260	mg/kg	4.02E-01	3.56E-01	5.55E-01	1.92E+00		mg/kg	5.5E-01	95% UCL-T	Y - Statistic(1)	5.5E-01	95% UCL-T	Y - Statistic(1)
Sum of High MW PCBs	mg/kg	4.21E-01	3.74E-01	5.77E-01	1.92E+00		mg/kg	5.8E-01	95% UCL-T	Y - Statistic(1)	5.8E-01	95% UCL-T	Y - Statistic(1)
Sum of PCBs	mg/kg	6.73E-01	6.01E-01	9.13E-01	3.90E+00		mg/kg	9.1E-01	95% UCL-T	Y - Statistic(1)	9.1E-01	95% UCL-T	Y - Statistic(1)
PCDD/PCDFs													
TEQ as 2,3,7,8-TCDD	mg/kg	1.01E-05	1.35E-05	1.95E-05	4.60E-05		mg/kg	2.0E-05	95% UCL-T	W - Test(1)	2.0E-05	95% UCL-T	W - Test(1)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
J – estimated value.
Arsenic (inorganic) = assumed 10% of total arsenic detected (see section 4.7.2)
Mercury (as methylmercury) = mercury concentrations used in the Risk Assessment, representing the sum of all detected forms of mercury in a particular sample, and is interpreted as methylmercury.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficent number of samples (n<10).

Table 3.2
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Sediment
Exposure Medium:	Sediment
Exposure Point:	**Nearshore surface sediment from the northern basin of Onondaga Lake**

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Antimony	mg/kg	2.63E+00	3.32E+00	2.04E+01	9.20E+00		mg/kg	9.2E+00	Max	W - Test(3)	9.2E+00	Max	W - Test(3)
Arsenic	mg/kg	1.95E+00	2.08E+00	3.86E+00	8.00E+00		mg/kg	3.9E+00	95% UCL-T	W - Test(1)	3.9E+00	95% UCL-T	W - Test(1)
Barium	mg/kg	1.30E+02	1.64E+02	1.51E+02	7.08E+02		mg/kg	1.5E+02	95% UCL-T	W - Test(1)	1.5E+02	95% UCL-T	W - Test(1)
Cadmium	mg/kg	9.62E-01	1.09E+00	2.03E+00	4.60E+00		mg/kg	2.0E+00	95% UCL-T	W - Test(1)	2.0E+00	95% UCL-T	W - Test(1)
Chromium	mg/kg	2.20E+01	2.06E+01	3.24E+01	8.01E+01	*J*	mg/kg	3.2E+01	95% UCL-T	W - Test(1)	3.2E+01	95% UCL-T	W - Test(1)
Iron	mg/kg	4.21E+03	3.40E+03	5.79E+03	1.36E+04		mg/kg	5.8E+03	95% UCL-T	W - Test(1)	5.8E+03	95% UCL-T	W - Test(1)
Manganese	mg/kg	2.49E+02	8.10E+01	2.77E+02	4.45E+02	*J*	mg/kg	2.8E+02	95% UCL-T	W - Test(2)	2.8E+02	95% UCL-T	W - Test(2)
Methylmercury	mg/kg	1.73E-03	3.70E-04	n<10	1.99E-03		mg/kg	2.0E-03	Max	W - Test(4)	2.0E-03	Max	W - Test(4)
Total Mercury	mg/kg	8.29E-01	8.25E-01	1.89E+00	2.80E+00		mg/kg	1.9E+00	95% UCL-T	W - Test(1)	1.9E+00	95% UCL-T	W - Test(1)
Thallium	mg/kg	2.41E-01	1.54E-01	2.93E-01	7.30E-01		mg/kg	2.9E-01	95% UCL-T	W - Test(1)	2.9E-01	95% UCL-T	W - Test(1)
VOCs													
Benzene	mg/kg	8.65E-02	2.73E-01	8.94E-02	1.18E+00		mg/kg	8.9E-02	95% UCL-T	W - Test(1)	8.9E-02	95% UCL-T	W - Test(1)
SVOCs													
Benz(a)anthracene	mg/kg	1.19E-01	2.57E-01	1.63E-01	1.50E+00		mg/kg	1.6E-01	95% UCL-T	W - Test(1)	1.6E-01	95% UCL-T	W - Test(1)
Benzo(a)pyrene	mg/kg	1.11E-01	2.24E-01	1.56E-01	1.30E+00		mg/kg	1.6E-01	95% UCL-T	W - Test(1)	1.6E-01	95% UCL-T	W - Test(1)
Benzo(b)fluoranthene	mg/kg	1.49E-01	2.78E-01	2.37E-01	1.60E+00		mg/kg	2.4E-01	95% UCL-T	W - Test(1)	2.4E-01	95% UCL-T	W - Test(1)
Dibenz(a,h)anthracene	mg/kg	3.86E-02	3.34E-02	4.83E-02	1.80E-01		mg/kg	4.8E-02	95% UCL-T	W - Test(1)	4.8E-02	95% UCL-T	W - Test(1)
Hexachlorobenzene	mg/kg	4.15E-02	1.02E-01	4.06E-01	5.83E-01		mg/kg	4.1E-01	95% UCL-T	W - Test(1)	4.1E-01	95% UCL-T	W - Test(1)
Naphthalene	mg/kg	4.33E-01	1.99E+00	3.89E-01	1.20E+01		mg/kg	3.9E-01	95% UCL-T	W - Test(1)	3.9E-01	95% UCL-T	W - Test(1)
PCBs													
Aroclor 1254	mg/kg	4.19E-02	9.65E-02	4.12E-02	6.19E-01		mg/kg	4.1E-02	95% UCL-T	W - Test(1)	4.1E-02	95% UCL-T	W - Test(1)
Aroclor 1268	mg/kg	2.53E-02	3.78E-02	3.47E-02	1.54E-01		mg/kg	3.5E-02	95% UCL-T	W - Test(1)	3.5E-02	95% UCL-T	W - Test(1)
Sum of PCBs	mg/kg	7.85E-02	1.10E-01	8.62E-02	7.20E-01		mg/kg	8.6E-02	95% UCL-T	W - Test(1)	8.6E-02	95% UCL-T	W - Test(1)
PCDD/PCDFs													
TEQ as 2,3,7,8-TCDD	mg/kg	1.59E-06	5.14E-07	n<10	1.95E-06		mg/kg	2.0E-06	Max	W - Test(4)	2.0E-06	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
0 to 0.02 and 0 to 0.30 meter depth samples (or the length-weighted average of samples in 0 to 0.30 meter interval) were used to calculate the 95% UCLs, for discussion see Section 3.2 of HHRA
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficent number of samples (n<10).

Table 3.3
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Sediment
Exposure Medium: Sediment
Exposure Point: Nearshore surface sediment from the southern basin of Onondaga Lake

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Aluminum	mg/kg	3.33E+03	2.54E+03	4.08E+03	1.59E+04		mg/kg	4.1E+03	95% UCL-T	Y - Statistic(1)	4.1E+03	95% UCL-T	Y - Statistic(1)
Antimony	mg/kg	1.46E+00	1.71E+00	3.05E+00	6.70E+00	*J*	mg/kg	3.0E+00	95% UCL-T	Y - Statistic(1)	3.0E+00	95% UCL-T	Y - Statistic(1)
Arsenic	mg/kg	7.35E+00	7.78E+00	1.24E+01	4.35E+01		mg/kg	1.2E+01	95% UCL-T	Y - Statistic(1)	1.2E+01	95% UCL-T	Y - Statistic(1)
Barium	mg/kg	6.56E+02	1.69E+03	9.02E+02	1.18E+04		mg/kg	9.0E+02	95% UCL-T	W - Test(1)	9.0E+02	95% UCL-T	W - Test(1)
Cadmium	mg/kg	2.05E+00	2.85E+00	3.91E+00	1.67E+01		mg/kg	3.9E+00	95% UCL-T	Y - Statistic(1)	3.9E+00	95% UCL-T	Y - Statistic(1)
Chromium	mg/kg	1.71E+02	4.05E+02	2.05E+02	2.15E+03		mg/kg	2.0E+02	95% UCL-T	Y - Statistic(1)	2.0E+02	95% UCL-T	Y - Statistic(1)
Copper	mg/kg	6.64E+01	6.58E+01	9.61E+01	3.65E+02		mg/kg	9.6E+01	95% UCL-T	Y - Statistic(1)	9.6E+01	95% UCL-T	Y - Statistic(1)
Cyanide	mg/kg	1.08E+00	1.64E+00	1.51E+00	9.20E+00		mg/kg	1.5E+00	95% UCL-T	W - Test(1)	1.5E+00	95% UCL-T	W - Test(1)
Iron	mg/kg	9.83E+03	8.99E+03	1.22E+04	3.42E+04		mg/kg	1.2E+04	95% UCL-T	W - Test(1)	1.2E+04	95% UCL-T	W - Test(1)
Lead	mg/kg	1.32E+02	2.19E+02	2.35E+02	1.17E+03		mg/kg	2.3E+02	95% UCL-T	Y - Statistic(1)	2.3E+02	95% UCL-T	Y - Statistic(1)
Manganese	mg/kg	2.65E+02	1.36E+02	2.95E+02	7.57E+02		mg/kg	2.9E+02	95% UCL-T	W - Test(1)	2.9E+02	95% UCL-T	W - Test(1)
Methylmercury	mg/kg	1.06E-02	9.60E-03	n<10	2.25E-02		mg/kg	2.2E-02	Max	W - Test(4)	2.2E-02	Max	W - Test(4)
Total Mercury	mg/kg	6.47E+00	1.10E+01	1.89E+01	6.15E+01		mg/kg	1.9E+01	95% UCL-T	Y - Statistic(1)	1.9E+01	95% UCL-T	Y - Statistic(1)
Nickel	mg/kg	6.43E+01	1.55E+02	7.32E+01	9.72E+02		mg/kg	7.3E+01	95% UCL-T	Y - Statistic(1)	7.3E+01	95% UCL-T	Y - Statistic(1)
Thallium	mg/kg	3.35E-01	2.36E-01	4.01E-01	1.15E+00		mg/kg	4.0E-01	95% UCL-T	W - Test(1)	4.0E-01	95% UCL-T	W - Test(1)
Vanadium	mg/kg	1.71E+01	2.84E+01	2.99E+01	1.45E+02		mg/kg	3.0E+01	95% UCL-T	W - Test(1)	3.0E+01	95% UCL-T	W - Test(1)
VOCs													
Benzene	mg/kg	3.39E+00	1.45E+01	6.12E+01	1.11E+02		mg/kg	6.1E+01	95% UCL-T	Y - Statistic(1)	6.1E+01	95% UCL-T	Y - Statistic(1)
Chlorobenzene	mg/kg	1.15E+01	3.29E+01	2.34E+03	1.80E+02		mg/kg	1.8E+02	Max	Y - Statistic(3)	1.8E+02	Max	Y - Statistic(3)
Methylene chloride	mg/kg	1.35E+00	2.16E+00	1.69E+02	8.50E+00		mg/kg	8.5E+00	Max	Y - Statistic(3)	8.5E+00	Max	Y - Statistic(3)
Xylenes	mg/kg	1.61E+01	4.81E+01	1.53E+04	3.30E+02	*J*	mg/kg	3.3E+02	Max	Y - Statistic(3)	3.3E+02	Max	Y - Statistic(3)
SVOCs													
Acenaphthylene	mg/kg	1.16E+00	1.70E+00	4.24E+00	1.10E+01		mg/kg	4.2E+00	95% UCL-T	Y - Statistic(3)	4.2E+00	95% UCL-T	Y - Statistic(3)
Benz[a]anthracene	mg/kg	3.31E+00	8.29E+00	9.76E+00	5.70E+01		mg/kg	9.8E+00	95% UCL-T	Y - Statistic(1)	9.8E+00	95% UCL-T	Y - Statistic(1)
Benzo[a]pyrene	mg/kg	2.69E+00	6.35E+00	7.40E+00	3.85E+01		mg/kg	7.4E+00	95% UCL-T	Y - Statistic(1)	7.4E+00	95% UCL-T	Y - Statistic(1)
Benzo[b]fluoranthene	mg/kg	3.56E+00	7.94E+00	9.82E+00	4.60E+01	*J*	mg/kg	9.8E+00	95% UCL-T	Y - Statistic(1)	9.8E+00	95% UCL-T	Y - Statistic(1)
Benzo[ghi]perylene	mg/kg	2.00E+00	3.51E+00	6.39E+00	2.12E+01		mg/kg	6.4E+00	95% UCL-T	Y - Statistic(1)	6.4E+00	95% UCL-T	Y - Statistic(1)
Benzo[k]fluoranthene	mg/kg	1.67E+00	4.63E+00	3.55E+00	3.55E+01		mg/kg	3.6E+00	95% UCL-T	Y - Statistic(1)	3.6E+00	95% UCL-T	Y - Statistic(1)
Chrysene	mg/kg	3.37E+00	8.38E+00	9.62E+00	5.70E+01		mg/kg	9.6E+00	95% UCL-T	Y - Statistic(1)	9.6E+00	95% UCL-T	Y - Statistic(1)
Dibenz[a,h]anthracene	mg/kg	6.69E-01	1.35E+01	1.63E+00	9.85E+00		mg/kg	1.6E+00	95% UCL-T	Y - Statistic(1)	1.6E+00	95% UCL-T	Y - Statistic(1)
Dibenzofuran	mg/kg	4.71E+00	1.77E+01	1.80E+01	4.30E+01		mg/kg	1.8E+01	95% UCL-T	W - Test(1)	1.8E+01	95% UCL-T	W - Test(1)
1,3-Dichlorobenzene	mg/kg	2.34E+00	1.42E+01	4.64E+00	5.00E+00		mg/kg	4.6E+00	95% UCL-T	Y - Statistic(1)	4.6E+00	95% UCL-T	Y - Statistic(1)
1,4-Dichlorobenzene	mg/kg	5.95E+00	1.70E+01	1.33E+02	6.28E+01		mg/kg	6.3E+01	Max	Y - Statistic(3)	6.3E+01	Max	Y - Statistic(3)
Fluoranthene	mg/kg	8.40E+00	1.95E+01	3.37E+01	1.42E+02		mg/kg	3.4E+01	95% UCL-T	Y - Statistic(1)	3.4E+01	95% UCL-T	Y - Statistic(1)
Hexachlorobenzene	mg/kg	6.20E-01	2.60E+00	6.66E+00	2.00E+01	*J*	mg/kg	6.7E+00	95% UCL-T	Y - Statistic(1)	6.7E+00	95% UCL-T	Y - Statistic(1)
Indeno[1,2,3-cd]pyrene	mg/kg	1.46E+00	3.39E+00	3.77E+00	2.27E+01		mg/kg	3.8E+00	95% UCL-T	Y - Statistic(1)	3.8E+00	95% UCL-T	Y - Statistic(1)
2-Methylnaphthalene	mg/kg	6.17E+01	4.04E+02	1.76E+02	2.80E+03	*J*	mg/kg	1.8E+02	95% UCL-T	W - Test(1)	1.8E+02	95% UCL-T	W - Test(1)
Naphthalene	mg/kg	4.23E+02	3.25E+03	1.05E+03	2.60E+04	*J*	mg/kg	1.1E+03	95% UCL-T	Y - Statistic(1)	1.1E+03	95% UCL-T	Y - Statistic(1)
Phenanthrene	mg/kg	1.79E+01	8.20E+01	5.25E+01	6.30E+02	*J*	mg/kg	5.3E+01	95% UCL-T	Y - Statistic(1)	5.3E+01	95% UCL-T	Y - Statistic(1)
Pesticides													
Dieldrin	mg/kg	3.57E-03	4.33E-03	8.69E-03	1.59E-02		mg/kg	8.7E-03	95% UCL-T	W - Test(1)	8.7E-03	95% UCL-T	W - Test(1)
PCBs													
Aroclor 1221	mg/kg	6.53E-02	7.91E-02	8.14E-02	3.61E-01		mg/kg	8.1E-02	95% UCL-T	Y - Statistic(1)	8.1E-02	95% UCL-T	Y - Statistic(1)

Table 3.3
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Aroclor 1242	mg/kg	2.94E-01	8.23E-01	3.46E-01	6.05E+00		mg/kg	3.5E-01	95% UCL-T	Y - Statistic(1)	3.5E-01	95% UCL-T	Y - Statistic(1)
Aroclor 1248	mg/kg	1.93E-01	5.45E-01	2.25E-01	4.20E+00	*J*	mg/kg	2.3E-01	95% UCL-T	Y - Statistic(1)	2.3E-01	95% UCL-T	Y - Statistic(1)
Aroclor 1254	mg/kg	1.11E-01	1.61E-01	1.39E-01	8.44E-01		mg/kg	1.4E-01	95% UCL-T	Y - Statistic(1)	1.4E-01	95% UCL-T	Y - Statistic(1)
Aroclor 1260	mg/kg	1.60E-01	3.01E-01	2.01E-01	1.80E+00	*J*	mg/kg	2.0E-01	95% UCL-T	Y - Statistic(1)	2.0E-01	95% UCL-T	Y - Statistic(1)
PCBs	mg/kg	6.82E-01	1.23E+00	1.06E+00	7.13E+00		mg/kg	1.1E+00	95% UCL-T	Y - Statistic(1)	1.1E+00	95% UCL-T	Y - Statistic(1)
PCDD/PCDFs													
TEQ as 2,3,7,8-TCDD	mg/kg	1.06E-04	1.19E-04	n<10	3.77E-04		mg/kg	3.8E-04	Max	W - Test(4)	3.8E-04	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
0 to 0.02 and 0 to 0.30 meter depth samples (or the length-weighted average of samples in 0 to 0.30 meter interval) were used to calculate the 95% UCLs, for discussion see Section 3.2 of HHRA
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficent number of samples (n<10).

Table 3.4
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Sediment
Exposure Medium:	Sediment
Exposure Point:	**Wetland SYW-6 sediment from the northern basin of Onondaga Lake**

Chemical of Potential Concern	Units	Arithmetic Mean	Standard Deviation	95% UCL of Normal Data	Maximum Detected Value	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure: Medium EPC Value	Reasonable Maximum Exposure: Medium EPC Statistic	Reasonable Maximum Exposure: Medium EPC Rationale	Central Tendency: Medium EPC Value	Central Tendency: Medium EPC Statistic	Central Tendency: Medium EPC Rationale
Inorganics													
Aluminum	mg/kg	5.42E+03	2.98E+03	n < 10	1.07E+04		mg/kg	1.1E+04	Max	W - Test(4)	1.1E+04	Max	W - Test(4)
Arsenic	mg/kg	2.79E+00	1.73E+00	n < 10	6.80E+00		mg/kg	6.8E+00	Max	W - Test(4)	6.8E+00	Max	W - Test(4)
Cadmium	mg/kg	2.61E+00	2.55E+00	n < 10	8.60E+00		mg/kg	8.6E+00	Max	W - Test(4)	8.6E+00	Max	W - Test(4)
Chromium	mg/kg	3.92E+01	2.84E+01	n < 10	9.37E+01		mg/kg	9.4E+01	Max	W - Test(4)	9.4E+01	Max	W - Test(4)
Cyanide	mg/kg	8.56E-01	1.32E+00	n < 10	2.84E+00		mg/kg	2.8E+00	Max	W - Test(4)	2.8E+00	Max	W - Test(4)
Iron	mg/kg	9.83E+03	7.55E+03	n < 10	2.82E+04		mg/kg	2.8E+04	Max	W - Test(4)	2.8E+04	Max	W - Test(4)
Manganese	mg/kg	2.51E+02	7.28E+01	n < 10	4.20E+02		mg/kg	4.2E+02	Max	W - Test(4)	4.2E+02	Max	W - Test(4)
(5) Mercury(inorganic)	mg/kg	9.54E-01	1.07E+00	n < 10	3.02E+00		mg/kg	3.0E+00	Max	W - Test(4)	3.0E+00	Max	W - Test(4)
(5) Methylmercury	mg/kg	9.64E-03	1.08E-02	n < 10	3.05E-02		mg/kg	3.1E-02	Max	W - Test(4)	3.1E-02	Max	W - Test(4)
Thallium	mg/kg	5.60E-01	4.64E-01	n < 10	1.65E+00		mg/kg	1.7E+00	Max	W - Test(4)	1.7E+00	Max	W - Test(4)
SVOCs													
2-Methylnaphthalene	mg/kg	7.92E-01	1.04E+00	n<10	3.28E+00	*J*	mg/kg	3.3E+00	Max	W - Test(4)	3.3E+00	Max	W - Test(4)
Acenaphthylene	mg/kg	8.13E-01	1.25E+00	n<10	3.91E+00	*J*	mg/kg	3.9E+00	Max	W - Test(4)	3.9E+00	Max	W - Test(4)
Benz(a)anthracene	mg/kg	3.13E+00	8.38E+00	n<10	2.55E+01	*J*	mg/kg	2.5E+01	Max	W - Test(4)	2.5E+01	Max	W - Test(4)
Benzo(a)pyrene	mg/kg	3.04E+00	8.24E+00	n<10	2.50E+01	*J*	mg/kg	2.5E+01	Max	W - Test(4)	2.5E+01	Max	W - Test(4)
Benzo(b)fluoranthene	mg/kg	3.73E+00	1.02E+01	n<10	3.08E+01	*J*	mg/kg	3.1E+01	Max	W - Test(4)	3.1E+01	Max	W - Test(4)
Benzo(g,h,i)perylene	mg/kg	1.83E+00	4.83E+00	n<10	1.47E+01	*J*	mg/kg	1.5E+01	Max	W - Test(4)	1.5E+01	Max	W - Test(4)
Benzo(k)fluoranthene	mg/kg	1.58E+00	3.69E+00	n<10	1.14E+01	*J*	mg/kg	1.1E+01	Max	W - Test(4)	1.1E+01	Max	W - Test(4)
Dibenz(a,h)anthracene	mg/kg	8.62E-01	1.41E+00	n<10	4.43E+00	*J*	mg/kg	4.4E+00	Max	W - Test(4)	4.4E+00	Max	W - Test(4)
Indeno(1,2,3-cd)pyrene	mg/kg	1.83E+00	4.83E+00	n<10	1.47E+01	*J*	mg/kg	1.5E+01	Max	W - Test(4)	1.5E+01	Max	W - Test(4)
Naphthalene	mg/kg	9.03E-01	1.35E+00	n<10	4.28E+00	*J*	mg/kg	4.3E+00	Max	W - Test(4)	4.3E+00	Max	W - Test(4)
Phenanthrene	mg/kg	3.85E+00	1.07E+01	n<10	3.25E+01	*J*	mg/kg	3.3E+01	Max	W - Test(4)	3.3E+01	Max	W - Test(4)
PCDD/PCDFs													
TEQ as 2,3,7,8-TCDD	mg/kg	5.81E-06	4.22E-06	n < 10	1.15E-05		mg/kg	1.1E-05	Max	W - Test(4)	1.1E-05	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
The length-weighted average of samples in the 0 to 0.30 meter interval were used to calculate the 95% UCLs, for discussion see Section 3.2 of HHRA
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficent number of samples (n<10).
(5) Mercury (inorganic) and methylmercury concentrations in wetland sediment estimated from total mercury concentration data (as shown in Appendix A tables A-4 and A-5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 3.5
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Sediment
Exposure Medium:	Sediment
Exposure Point:	**Wetland SYW-10 sediment from the northern basin of Onondaga Lake**

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Aluminum	mg/kg	5.76E+03	2.93E+03	n < 10	9.34E+03		mg/kg	9.3E+03	Max	W - Test(4)	9.3E+03	Max	W - Test(4)
Antimony	mg/kg	1.49E+00	2.43E+00	n < 10	5.13E+00		mg/kg	5.1E+00	Max	W - Test(4)	5.1E+00	Max	W - Test(4)
Arsenic	mg/kg	5.41E+00	4.24E+00	n < 10	1.17E+01		mg/kg	1.2E+01	Max	W - Test(4)	1.2E+01	Max	W - Test(4)
Chromium	mg/kg	2.16E+01	7.19E+00	n < 10	3.16E+01		mg/kg	3.2E+01	Max	W - Test(4)	3.2E+01	Max	W - Test(4)
Iron	mg/kg	1.12E+04	3.71E+03	n < 10	1.61E+04		mg/kg	1.6E+04	Max	W - Test(4)	1.6E+04	Max	W - Test(4)
Manganese	mg/kg	2.94E+02	6.72E+01	n < 10	3.90E+02		mg/kg	3.9E+02	Max	W - Test(4)	3.9E+02	Max	W - Test(4)
(5) Mercury(inorganic)	mg/kg	1.71E+00	8.07E-01	n < 10	2.82E+00		mg/kg	2.8E+00	Max	W - Test(4)	2.8E+00	Max	W - Test(4)
(5) Methylmercury	mg/kg	1.72E-02	8.15E-03	n < 10	2.85E-02		mg/kg	2.9E-02	Max	W - Test(4)	2.9E-02	Max	W - Test(4)
Thallium	mg/kg	1.36E+00	6.27E-01	n < 10	2.27E+00		mg/kg	2.3E+00	Max	W - Test(4)	2.3E+00	Max	W - Test(4)
SVOCs													
Benz(a)anthracene	mg/kg	3.28E-01	4.67E-01	n < 10	1.03E+00		mg/kg	1.0E+00	Max	W - Test(4)	1.0E+00	Max	W - Test(4)
Benzo(a)pyrene	mg/kg	3.62E-01	4.78E-01	n < 10	1.07E+00		mg/kg	1.1E+00	Max	W - Test(4)	1.1E+00	Max	W - Test(4)
Benzo(b)fluoranthene	mg/kg	2.99E-01	3.98E-01	n < 10	8.90E-01		mg/kg	8.9E-01	Max	W - Test(4)	8.9E-01	Max	W - Test(4)
Dibenz(a,h)anthracene	mg/kg	8.92E-02	1.11E-01	n < 10	2.55E-01		mg/kg	2.5E-01	Max	W - Test(4)	2.5E-01	Max	W - Test(4)
Indeno(1,2,3-cd)pyrene	mg/kg	2.30E-01	2.88E-01	n < 10	6.55E-01		mg/kg	6.6E-01	Max	W - Test(4)	6.6E-01	Max	W - Test(4)
PCBs													
Aroclor 1260	mg/kg	7.84E-02	8.30E-02	n < 10	2.02E-01	J	mg/kg	2.0E-01	Max	W - Test(4)	2.0E-01	Max	W - Test(4)
Sum of PCBs	mg/kg	1.12E-01	7.95E-02	n < 10	2.28E-01		mg/kg	2.3E-01	Max	W - Test(4)	2.3E-01	Max	W - Test(4)
PCDD/PCDFs													
TEQ as 2,3,7,8-TCDD	mg/kg	7.80E-06	2.72E-06	n < 10	1.18E-05		mg/kg	1.2E-05	Max	W - Test(4)	1.2E-05	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
The length-weighted average of samples in the 0 to 0.30 meter interval were used to calculate the 95% UCLs, for discussion see Section 3.2 of HHRA
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficent number of samples (n<10).
(5) Mercury (inorganic) and methylmercury concentrations in wetland sediment estimated from total mercury concentration data (as shown in Appendix A tables A-4 and A-5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 3.6
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Sediment
Exposure Medium:	Sediment
Exposure Point:	**Wetland SYW-12 sediment from the southern basin of Onondaga Lake**

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviaition**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Aluminum	mg/kg	5.13E+03	2.92E+03	n < 10	8.76E+03		mg/kg	8.8E+03	Max	W - Test(4)	8.8E+03	Max	W - Test(4)
Arsenic	mg/kg	3.93E+00	1.85E+00	n < 10	6.30E+00		mg/kg	6.3E+00	Max	W - Test(4)	6.3E+00	Max	W - Test(4)
Cadmium	mg/kg	1.71E+01	1.61E+01	n < 10	4.07E+01		mg/kg	4.1E+01	Max	W - Test(4)	4.1E+01	Max	W - Test(4)
Chromium	mg/kg	1.49E+02	1.05E+02	n < 10	3.03E+02		mg/kg	3.0E+02	Max	W - Test(4)	3.0E+02	Max	W - Test(4)
Copper	mg/kg	1.26E+02	1.02E+02	n < 10	2.67E+02		mg/kg	2.7E+02	Max	W - Test(4)	2.7E+02	Max	W - Test(4)
Cyanide	mg/kg	3.40E-01	3.42E-01	n < 10	8.53E-01		mg/kg	8.5E-01	Max	W - Test(4)	8.5E-01	Max	W - Test(4)
Iron	mg/kg	1.12E+04	4.13E+03	n < 10	1.71E+04		mg/kg	1.7E+04	Max	W - Test(4)	1.7E+04	Max	W - Test(4)
Manganese	mg/kg	2.52E+02	1.54E+01	n < 10	2.68E+02		mg/kg	2.7E+02	Max	W - Test(4)	2.7E+02	Max	W - Test(4)
(5) Mercury(inorganic)	mg/kg	1.32E+00	1.25E+00	n < 10	2.98E+00		mg/kg	3.0E+00	Max	W - Test(4)	3.0E+00	Max	W - Test(4)
(5) Methylmercury	mg/kg	1.33E-02	1.26E-02	n < 10	3.01E-02		mg/kg	3.0E-02	Max	W - Test(4)	3.0E-02	Max	W - Test(4)
Thallium	mg/kg	2.98E-01	2.46E-01	n < 10	6.65E-01		mg/kg	6.7E-01	Max	W - Test(4)	6.7E-01	Max	W - Test(4)
SVOCs													
Benz(a)anthracene	mg/kg	1.45E+00	2.15E+00	n < 10	4.65E+00		mg/kg	4.7E+00	Max	W - Test(4)	4.7E+00	Max	W - Test(4)
Benzo(a)pyrene	mg/kg	1.45E+00	2.09E+00	n < 10	4.55E+00		mg/kg	4.6E+00	Max	W - Test(4)	4.6E+00	Max	W - Test(4)
Benzo(b)fluoranthene	mg/kg	1.01E+00	1.44E+00	n < 10	3.15E+00		mg/kg	3.2E+00	Max	W - Test(4)	3.2E+00	Max	W - Test(4)
Dibenz(a,h)anthracene	mg/kg	1.01E-01	6.70E-02	n < 10	1.70E-01		mg/kg	1.7E-01	Max	W - Test(4)	1.7E-01	Max	W - Test(4)
Indeno(1,2,3-cd)pyrene	mg/kg	9.38E-01	1.42E+00	n < 10	3.05E+00		mg/kg	3.1E+00	Max	W - Test(4)	3.1E+00	Max	W - Test(4)
Phenanthrene	mg/kg	2.24E+00	3.49E+00	n < 10	7.45E+00		mg/kg	7.5E+00	Max	W - Test(4)	7.5E+00	Max	W - Test(4)
PCBs													
Aroclor 1242	mg/kg	1.03E-01	1.22E-01	n < 10	2.79E-01	*J*	mg/kg	2.8E-01	Max	W - Test(4)	2.8E-01	Max	W - Test(4)
Aroclor 1254	mg/kg	1.94E-01	1.62E-01	n < 10	4.22E-01	*J*	mg/kg	4.2E-01	Max	W - Test(4)	4.2E-01	Max	W - Test(4)
Aroclor 1260	mg/kg	1.27E-01	7.44E-02	n < 10	2.19E-01	*J*	mg/kg	2.2E-01	Max	W - Test(4)	2.2E-01	Max	W - Test(4)
Sum of PCBs	mg/kg	4.16E-01	3.60E-01	n < 10	9.20E-01		mg/kg	9.2E-01	Max	W - Test(4)	9.2E-01	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
The length-weighted average of samples in the 0 to 0.30 meter interval were used to calculate the 95% UCLs, for discussion see Section 3.2 of HHRA
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficent number of samples (n<10).
(5) Mercury (inorganic) and methylmercury concentrations in wetland sediment estimated from total mercury concentration data (as shown in Appendix A tables A-4 and A-5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 3.7
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Sediment
Exposure Medium:	Sediment
Exposure Point:	**Wetland SYW-19 sediment from the southern basin of Onondaga Lake**

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Antimony	mg/kg	1.22E+00	1.07E+00	n < 10	3.30E+00	*J*	mg/kg	3.3E+00	Max	W - Test(4)	3.3E+00	Max	W - Test(4)
Arsenic	mg/kg	7.19E+00	1.83E+00	n < 10	8.55E+00		mg/kg	8.6E+00	Max	W - Test(4)	8.6E+00	Max	W - Test(4)
Barium	mg/kg	3.20E+02	1.36E+02	n < 10	5.12E+02	*J*	mg/kg	5.1E+02	Max	W - Test(4)	5.1E+02	Max	W - Test(4)
Cadmium	mg/kg	1.79E+00	8.88E-01	n < 10	2.95E+00		mg/kg	3.0E+00	Max	W - Test(4)	3.0E+00	Max	W - Test(4)
Chromium	mg/kg	4.89E+01	1.52E+01	n < 10	7.03E+01		mg/kg	7.0E+01	Max	W - Test(4)	7.0E+01	Max	W - Test(4)
Iron	mg/kg	9.49E+03	2.11E+03	n < 10	1.04E+04		mg/kg	1.0E+04	Max	W - Test(4)	1.0E+04	Max	W - Test(4)
Manganese	mg/kg	2.40E+02	2.92E+01	n < 10	3.01E+02		mg/kg	3.0E+02	Max	W - Test(4)	3.0E+02	Max	W - Test(4)
(5) Mercury(inorganic)	mg/kg	1.91E+01	8.81E+00	n < 10	4.22E+01		mg/kg	4.2E+01	Max	W - Test(4)	4.2E+01	Max	W - Test(4)
(5) Methylmercury	mg/kg	1.93E-01	8.90E-02	n < 10	4.26E-01		mg/kg	4.3E-01	Max	W - Test(4)	4.3E-01	Max	W - Test(4)
SVOCs													
1,3-Dichlorobenzene	mg/kg	1.32E+00	1.21E+00	n < 10	3.79E+00		mg/kg	3.8E+00	Max	W - Test(4)	3.8E+00	Max	W - Test(4)
1,4-Dichlorobenzene	mg/kg	6.02E+00	2.52E+00	n < 10	8.90E+00		mg/kg	8.9E+00	Max	W - Test(4)	8.9E+00	Max	W - Test(4)
Hexachlorobenzene	mg/kg	1.21E+00	1.10E+00	n < 10	2.78E+00		mg/kg	2.8E+00	Max	W - Test(4)	2.8E+00	Max	W - Test(4)
Benz(a)anthracene	mg/kg	5.45E+00	4.62E+00	n < 10	1.14E+01	*J*	mg/kg	1.1E+01	Max	W - Test(4)	1.1E+01	Max	W - Test(4)
Benzo(a)pyrene	mg/kg	5.98E+00	3.63E+00	n < 10	1.04E+01		mg/kg	1.0E+01	Max	W - Test(4)	1.0E+01	Max	W - Test(4)
Benzo(b)fluoranthene	mg/kg	5.44E+00	2.88E+00	n < 10	9.05E+00		mg/kg	9.1E+00	Max	W - Test(4)	9.1E+00	Max	W - Test(4)
Benzo(g,h,i)perylene	mg/kg	3.55E+00	1.87E+00	n < 10	5.60E+00		mg/kg	5.6E+00	Max	W - Test(4)	5.6E+00	Max	W - Test(4)
Benzo(k)fluoranthene	mg/kg	4.98E+00	2.48E+00	n < 10	7.95E+00		mg/kg	8.0E+00	Max	W - Test(4)	8.0E+00	Max	W - Test(4)
Dibenz(a,h)anthracene	mg/kg	9.84E-01	1.03E+00	n < 10	2.65E+00		mg/kg	2.7E+00	Max	W - Test(4)	2.7E+00	Max	W - Test(4)
Indeno(1,2,3-cd)pyrene	mg/kg	3.56E+00	2.03E+00	n < 10	6.00E+00		mg/kg	6.0E+00	Max	W - Test(4)	6.0E+00	Max	W - Test(4)
Phenanthrene	mg/kg	9.28E+00	6.87E+00	n < 10	1.65E+01		mg/kg	1.7E+01	Max	W - Test(4)	1.7E+01	Max	W - Test(4)
Pesticides													
Aldrin	mg/kg	2.27E-02	1.23E-02	n < 10	3.86E-02	*J*	mg/kg	3.9E-02	Max	W - Test(4)	3.9E-02	Max	W - Test(4)
Dieldrin	mg/kg	1.76E-02	8.89E-03	n < 10	2.93E-02	*J*	mg/kg	2.9E-02	Max	W - Test(4)	2.9E-02	Max	W - Test(4)
PCBs													
Aroclor 1242	mg/kg	3.66E-01	1.88E-01	n < 10	7.05E-01	*J*	mg/kg	7.1E-01	Max	W - Test(4)	7.1E-01	Max	W - Test(4)
Aroclor 1254	mg/kg	3.62E-01	1.73E-01	n < 10	6.17E-01	*J*	mg/kg	6.2E-01	Max	W - Test(4)	6.2E-01	Max	W - Test(4)
Aroclor 1260	mg/kg	2.30E-01	1.30E-01	n < 10	3.14E-01	*J*	mg/kg	3.1E-01	Max	W - Test(4)	3.1E-01	Max	W - Test(4)
Sum of PCBs	mg/kg	9.54E-01	3.17E-01	n < 10	1.34E+00		mg/kg	1.3E+00	Max	W - Test(4)	1.3E+00	Max	W - Test(4)
PCDD/PCDFs													
TEQ as 2,3,7,8-TCDD	mg/kg	4.74E-04	9.63E-05	n < 10	8.81E-04		mg/kg	8.8E-04	Max	W - Test(4)	8.8E-04	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
The length-weighted average of sε0 to 0.02 and 0 to 0.30 meter depth samples (or the length-weighted average of samples in 0 to 0.30 meter interval) were used to calculate the 95% UCLs, for discussion see Section 3.2 of HHRA
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficent number of samples (n<10).
(5) Mercury (inorganic) and methylmercury concentrations in wetland sediment estimated from total mercury concentration data (as shown in Appendix A tables A-4 and A-5) and the assumption that one percent of the wetland sediment mercury is in the form of methylmercury

Table 3.8

Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Soil
Exposure Medium:	Soil
Exposure Point:	**Surface soils from Onondaga Lake dredge spoils (0 to 3.5 ft)**

								Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Aluminum	mg/kg	9.25E+03	1.34E+03	n<10	1.21E+04		mg/kg	1.2E+04	Max	W - Test(4)	1.2E+04	Max	W - Test(4)
Arsenic	mg/kg	5.79E+00	2.14E+00	n<10	8.40E+00		mg/kg	8.4E+00	Max	W - Test(4)	8.4E+00	Max	W - Test(4)
Chromium	mg/kg	1.76E+01	5.22E+00	n<10	2.94E+01	*J*	mg/kg	2.9E+01	Max	W - Test(4)	2.9E+01	Max	W - Test(4)
Iron	mg/kg	1.45E+04	1.99E+03	n<10	1.71E+04		mg/kg	1.7E+04	Max	W - Test(4)	1.7E+04	Max	W - Test(4)
Manganese	mg/kg	2.97E+02	4.37E+01	n<10	3.54E+02		mg/kg	3.5E+02	Max	W - Test(4)	3.5E+02	Max	W - Test(4)
Total Mercury	mg/kg	7.33E-01	1.34E+00	n<10	4.00E+00		mg/kg	4.0E+00	Max	W - Test(4)	4.0E+00	Max	W - Test(4)
SVOCs													
Benzo(a)pyrene	mg/kg	4.81E-02	4.05E-02	n<10	1.30E-01		mg/kg	1.3E-01	Max	W - Test(4)	1.3E-01	Max	W - Test(4)
Hexachlorobenzene (GC/MS)	mg/kg	6.87E-02	1.38E-01	n<10	4.10E-01		mg/kg	4.1E-01	Max	W - Test(4)	4.1E-01	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.

Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.

Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.

Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.

J – estimated value.

95% UCL-T – 95% UCL of log-transformed data.

(1) Statistical test indicates data are log-normally distributed.

(2) Statistical test indicates data are normally distributed.

(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.

(4) 95% UCL not calculated due to an insufficent number of samples (n<10).

Table 3.9
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Soil
Exposure Medium:	Soil
Exposure Point:	**All soil samples from Onondaga Lake dredge spoils (0 to 11.7 ft)**

									Reasonable Maximum Exposure			Central Tendency		
Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics													
Aluminum	mg/kg	6.99E+03	1.76E+03	n<10	1.02E+04		mg/kg	1.0E+04	Max	W - Test(4)	1.0E+04	Max	W - Test(4)
Arsenic	mg/kg	6.56E+00	2.33E+00	n<10	8.73E+00		mg/kg	8.7E+00	Max	W - Test(4)	8.7E+00	Max	W - Test(4)
Cadmium	mg/kg	4.14E-01	3.24E-01	n<10	9.68E-01		mg/kg	9.7E-01	Max	W - Test(4)	9.7E-01	Max	W - Test(4)
Chromium	mg/kg	2.03E+01	4.79E+00	n<10	2.60E+01		mg/kg	2.6E+01	Max	W - Test(4)	2.6E+01	Max	W - Test(4)
Cyanide	mg/kg	5.13E-01	1.77E-01	n<10	8.37E-01		mg/kg	8.4E-01	Max	W - Test(4)	8.4E-01	Max	W - Test(4)
Iron	mg/kg	1.03E+04	2.93E+03	n<10	1.51E+04		mg/kg	1.5E+04	Max	W - Test(4)	1.5E+04	Max	W - Test(4)
Manganese	mg/kg	2.77E+02	4.88E+01	n<10	3.82E+02		mg/kg	3.8E+02	Max	W - Test(4)	3.8E+02	Max	W - Test(4)
Total Mercury	mg/kg	2.74E+01	2.02E+01	n<10	4.79E+01	*J*	mg/kg	4.8E+01	Max	W - Test(4)	4.8E+01	Max	W - Test(4)
Thallium	mg/kg	3.67E-01	6.10E-02	n<10	4.91E-01		mg/kg	4.9E-01	Max	W - Test(4)	4.9E-01	Max	W - Test(4)
SVOCs													
Benz(a)anthracene	mg/kg	5.21E-01	8.42E-01	n<10	2.50E+00	*J*	mg/kg	2.5E+00	Max	W - Test(4)	2.5E+00	Max	W - Test(4)
Benzo(a)pyrene	mg/kg	5.49E-01	8.85E-01	n<10	2.63E+00	*J*	mg/kg	2.6E+00	Max	W - Test(4)	2.6E+00	Max	W - Test(4)
Benzo(b)fluoranthene	mg/kg	4.72E-01	7.64E-01	n<10	2.28E+00	*J*	mg/kg	2.3E+00	Max	W - Test(4)	2.3E+00	Max	W - Test(4)
Benzo(g,h,i)perylene	mg/kg	2.84E-01	4.33E-01	n<10	1.29E+00	*J*	mg/kg	1.3E+00	Max	W - Test(4)	1.3E+00	Max	W - Test(4)
Benzo(k)fluoranthene	mg/kg	4.73E-01	7.69E-01	n<10	2.29E+00	*J*	mg/kg	2.3E+00	Max	W - Test(4)	2.3E+00	Max	W - Test(4)
Dibenz(a,h)anthracene	mg/kg	1.31E-01	2.01E-01	n<10	6.09E-01	*J*	mg/kg	6.1E-01	Max	W - Test(4)	6.1E-01	Max	W - Test(4)
Hexachlorobenzene	mg/kg	1.06E-01	8.14E-02	n<10	2.25E-01	*J*	mg/kg	2.3E-01	Max	W - Test(4)	2.3E-01	Max	W - Test(4)
Indeno(1,2,3-cd)pyrene	mg/kg	2.73E-01	4.31E-01	n<10	1.29E+00	*J*	mg/kg	1.3E+00	Max	W - Test(4)	1.3E+00	Max	W - Test(4)
Naphthalene	mg/kg	3.86E-01	9.91E-01	n<10	2.84E+00		mg/kg	2.8E+00	Max	W - Test(4)	2.8E+00	Max	W - Test(4)
Phenanthrene	mg/kg	3.91E-01	4.89E-01	n<10	1.19E+00	*J*	mg/kg	1.2E+00	Max	W - Test(4)	1.2E+00	Max	W - Test(4)
PCBs													
Aroclor 1254	mg/kg	8.24E-02	6.05E-02	n<10	2.09E-01	*J*	mg/kg	2.1E-01	Max	W - Test(4)	2.1E-01	Max	W - Test(4)
Aroclor 1268	mg/kg	1.27E-01	1.08E-01	n<10	3.62E-01	*J*	mg/kg	3.6E-01	Max	W - Test(4)	3.6E-01	Max	W - Test(4)
Sum of PCBs	mg/kg	2.42E-01	1.81E-01	n<10	6.31E-01		mg/kg	6.3E-01	Max	W - Test(4)	6.3E-01	Max	W - Test(4)
PCDD/PCDFs													
TEQ as 2,3,7,8-TCDD	mg/kg	1.11E-05	1.68E-05	n<10	4.38E-05		mg/kg	4.4E-05	Max	W - Test(4)	4.4E-05	Max	W - Test(4)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
95% UCL is a length-weighted average calculated from all available samples from each boring location. Number and depths of subsurface soil samples varied
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficient number of samples (n<10).

Table 3.10
Medium-Specific Exposure Point Concentration Summary – Onondaga Lake

Scenario Time Frame:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water
Exposure Point:	**Surface water from Onondaga Lake**

									Reasonable Maximum Exposure			Central Tendency		
	Chemical of Potential Concern	**Units**	**Arithmetic Mean**	**Standard Deviation**	**95% UCL of Normal Data**	**Maximum Detected Value**	**Maximum Qualifier**	**EPC Units**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**	**Medium EPC Value**	**Medium EPC Statistic**	**Medium EPC Rationale**
Inorganics														
	Cadmium	mg/L	1.06E-03	3.45E-04	1.11E-03	3.10E-03		mg/L	1.1E-03	95% UCL-T	W - Test(1)	1.1E-03	95% UCL-T	W - Test(1)
	Chromium	mg/L	2.10E-03	9.92E-04	2.34E-03	4.10E-03		mg/L	2.3E-03	95% UCL-T	W - Test(2)	2.3E-03	95% UCL-T	W - Test(2)
	Manganese	mg/L	5.69E-02	8.99E-02	8.17E-02	6.24E-01		mg/L	8.2E-02	95% UCL-T	Y - Statistic(1)	8.2E-02	95% UCL-T	Y - Statistic(1)
	Methylmercury	mg/L	1.07E-06	1.12E-06	1.33E-06	5.93E-06		mg/L	1.3E-06	95% UCL-T	Y - Statistic(1)	1.3E-06	95% UCL-T	Y - Statistic(1)
	Total Mercury	mg/L	7.99E-06	1.17E-05	8.28E-06	1.03E-04		mg/L	8.3E-06	95% UCL-T	Y - Statistic(1)	8.3E-06	95% UCL-T	Y - Statistic(1)
VOCs														
	Benzene	mg/L	5.66E-04	8.52E-04	5.90E-04	6.30E-03		mg/L	5.9E-04	95% UCL-T	W - Test(1)	5.9E-04	95% UCL-T	W - Test(1)
	Chlorobenzene	mg/L	6.93E-04	1.67E-03	6.37E-04	1.20E-02		mg/L	6.4E-04	95% UCL-T	W - Test(1)	6.4E-04	95% UCL-T	W - Test(1)
	Chloroform	mg/L	3.76E-04	2.72E-04	6.58E-04	8.50E-04	*J*	mg/L	6.6E-04	95% UCL-T	W - Test(1)	6.6E-04	95% UCL-T	W - Test(1)
SVOCs														
	Bromodichloromethane	mg/L	2.27E-04	4.31E-05	2.51E-04	2.40E-04	*J*	mg/L	2.4E-04	Max	W - Test(3)	2.4E-04	Max	W - Test(3)
	1,2-Dichlorobenzene	mg/L	5.25E-04	4.49E-04	5.85E-04	3.20E-03	*J*	mg/L	5.8E-04	95% UCL-T	W - Test(1)	5.8E-04	95% UCL-T	W - Test(1)
	1,3-Dichlorobenzene	mg/L	5.19E-04	1.15E-04	5.39E-04	1.20E-03	*J*	mg/L	5.4E-04	95% UCL-T	W - Test(1)	5.4E-04	95% UCL-T	W - Test(1)
	1,4-Dichlorobenzene	mg/L	5.41E-04	4.84E-04	6.17E-04	3.40E-03	*J*	mg/L	6.2E-04	95% UCL-T	W - Test(1)	6.2E-04	95% UCL-T	W - Test(1)
	1,2,4-Trichlorobenzene	mg/L	5.51E-04	3.12E-04	5.82E-04	2.40E-03		mg/L	5.8E-04	95% UCL-T	W - Test(1)	5.8E-04	95% UCL-T	W - Test(1)

Notes: Duplicate sample results were averaged in calculations.
Distributional fits were assessed using the Shapiro-Wilk W test for sample sets containing less than 50 samples.
Distributional fits were assessed using the D'Agostino Y statistic for sample sets containing greater than 50 samples.
Arithmetic mean and 95% UCL of normal data were calculated using half the detection limit for non-detects. 95% UCL was not calculated for less than 10 data points.
Only data from 0 to 3 meter depths used for 95% UCL calculation
J – estimated value.
95% UCL-T – 95% UCL of log-transformed data.
(1) Statistical test indicates data are log-normally distributed.
(2) Statistical test indicates data are normally distributed.
(3) 95% UCL exceeds maximum detected concentration; therefore, maximum detected concentration was used for EPC.
(4) 95% UCL not calculated due to an insufficient number of samples (n<10).

Table 4.1
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time – non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	C x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	C	Chemical concentration in fish	mg/kg (wet)	See Appendix B, Table 3.1	NA	See Appendix B, Table 3.1	NA	
	CF	Conversion factor	kg/g	0.001	USEPA, 1989b	0.001	USEPA, 1989b	Chronic Daily Intake for PCBs and PCDD/PCDFs [2] (CDI) (mg/kg-day) =
	CL	Cooking loss (PCBs and PCDD/PCDFs only) [1]	unitless	N/A	USEPA, 2001	0.33	USEPA, 1997	(C x [1 – CL]) x CF x IR x FI x EF x ED / (BW x AT)
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	365	USEPA, 1997a	365	USEPA, 1997a	
	FI	Fraction ingested from contaminated source	–	1	NYSDEC and NYSDOL, 1998a	1	NYSDEC and NYSDOL, 1998a	
	IR	Ingestion rate	g fish/day	25	USEPA, 1997a	8	USEPA, 1997a	

Notes: NA – not applicable

[1] Used to adjust exposure point concentration (EPC) for PCBs and PCDD/PCDFs ingested for central tendency (CT) only.

Table 4.2
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Young Child (less than 6)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time – non-carcinogens	days	2,190	USEPA, 1989b	2,190	USEPA, 1989b	C x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	15	USEPA, 1991a	15	USEPA, 1991a	
	C	Chemical concentration in fish	mg/kg (wet)	See Appendix B, Table 3.1	NA	See Appendix B, Table 3.1	NA	
	CF	Conversion factor	kg/g	0.001	USEPA, 1989b	0.001	USEPA, 1989b	Chronic Daily Intake for PCBs and PCDD/PCDFs [2] (CDI) (mg/kg-day) =
	CL	Cooking loss (PCBs and PCDD/PCDFs only) [1]	unitless	N/A	USEPA, 2001	0.33	USEPA, 1997	(C x [1 – CL]) x CF x IR x FI x EF x ED / (BW x AT)
	ED	Exposure duration	years	6	USEPA, 1991a	6	USEPA, 1991a	
	EF	Exposure frequency	days/year	365	USEPA, 1997a	365	USEPA, 1997a	
	FI	Fraction ingested from contaminated source	–	1	NYSDEC and NYSDOL, 1998a	1	NYSDEC and NYSDOL, 1998a	
	IR	Ingestion rate	g fish/day	8.3	USEPA, 1997a	2.7	USEPA, 1997a	

Notes: NA – not applicable

[1] Used to adjust exposure point concentration (EPC) for PCBs and PCDD/PCDFs ingested for central tendency (CT) only.

Table 4.3
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time – non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	C x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	43	USEPA, 1991a	43	USEPA, 1991a	
	C	Chemical concentration in fish	mg/kg (wet)	See Appendix B, Table 3.1	NA	See Appendix B, Table 3.1	NA	
	CF	Conversion factor	kg/g	0.001	USEPA, 1989b	0.001	USEPA, 1989b	Chronic Daily Intake for PCBs and PCDD/PCDFs [2] (CDI) (mg/kg-day) =
	CL	Cooking loss (PCBs and PCDD/PCDFs only) [1]	unitless	N/A	USEPA, 2001	0.33	USEPA, 1997	(C x [1 – CL]) x CF x IR x FI x EF x ED / (BW x AT)
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	365	USEPA, 1997a	365	USEPA, 1997a	
	FI	Fraction ingested from contaminated source	–	1	NYSDEC and NYSDOL, 1998a	1	NYSDEC and NYSDOL, 1998a	
	IR	Ingestion rate	g fish/day	16.7	USEPA, 1997a	5.3	USEPA, 1997a	

Notes: NA – not applicable

[1] Used to adjust exposure point concentration (EPC) for PCBs and PCDD/PCDFs ingested for central tendency (CT) only.

Table 4.4
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Northern Basin
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time – non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	CS x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	–	1	NYSDEC and NYSDOL, 1998a	1	NYSDEC and NYSDOL, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	Chronic Daily Intake (CDI) (mg/kg-day) =
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	0.3	USEPA, 1997a	0.15	USEPA, 1997a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time – non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor – all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.5
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Northern Basin
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time – non-carcinogens	days	2,190	USEPA, 1989b	2,190	USEPA, 1989b	
	BW	Body weight	kg	15	USEPA, 1997a,b	15	USEPA 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	
	ED	Exposure duration	years	6	USEPA, 1991a	6	USEPA 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	–	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	200	USEPA, 1991a	100	USEPA, 1991a	
Dermal	ABS	Dermal absorption factor – all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997b	0.2	USEPA, 1997b	
	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time – non-carcinogens	days	2,190	USEPA, 1989b	2,190	USEPA, 1989b	
	BW	Body weight	kg	15	USEPA, 1997a,b	15	USEPA, 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	
	ED	Exposure duration	years	6	USEPA, 1991a	6	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	SA	Skin surface area available for contact	cm^2/event	2,800	USEPA 1997b, 2001	2,800	USEPA, 1997b, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.6
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Northern Basin
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time – non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	43	USEPA, 1997b	43	USEPA, 1997b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	–	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	ABS	Dermal absorption factor – all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997b	0.2	USEPA, 1997b	
	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time – non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	43	USEPA, 1997b	43	USEPA, 1997b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	SA	Skin surface area available for contact	cm^2/event	5,400	USEPA, 1997b, 2001	5,400	USEPA, 1997b, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.7
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Northern Basin
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time – non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	–	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA, 2001b	330	USEPA, 2001b	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.2	NA	See Appendix B, Table 3.2	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 1997a, 2001	5,700	USEPA, 1997a, 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA, 2001	0.2 [b]	USEPA, 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time – carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time – non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	ABS	Dermal absorption fraction – all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worker based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA, 2001, Exhibit 3-3).

Table 4.8
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Southern Basin
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	0.3	USEPA, 1997a	0.15	USEPA, 1997a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption fraction - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.9
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Southern Basin
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	2,190	USEPA, 1989b	2,190	USEPA, 1989b	
	BW	Body weight	kg	15	USEPA, 1997a,b	15	USEPA, 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	
	ED	Exposure duration	years	6	USEPA, 1991a	6	USEPA, 1991a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	200	USEPA, 1991a	100	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	2,800	USEPA, 1997b, 2001	2,800	USEPA, 1997b, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997a	0.2	USEPA, 1997a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	ED	Exposure duration	years	6	USEPA, 1991a	6	USEPA, 1991a	
	BW	Body weight	kg	15	USEPA, 1997a,b	15	USEPA, 1997a,b	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	2,190	USEPA, 1989b	2,190	USEPA, 1989b	
	ABS	Dermal absorption fraction - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.10
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Southern Basin
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,400	USEPA, 1997b, 2001	5,400	USEPA, 1997b, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997a	0.2	USEPA, 1997a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption fraction - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.11
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Surface Sediments
Exposure Medium: Sediment
Exposure Point: Southern Basin
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	--	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA, 2001b	330	USEPA, 2001b	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.3	NA	See Appendix B, Table 3.3	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA, 2001	0.2 [b]	USEPA, 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worker based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA, 2001, Exhibit 3-3).

Table 4.12
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-6 (Northern Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.4	NA	See Appendix B, Table 3.4	NA	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC and NYSDOL, 1998a	1	NYSDEC and NYSDOL, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.4	NA	See Appendix B, Table 3.4	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	0.3	USEPA, 1997a	0.15	USEPA, 1997a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.13
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland #SYW-6 (Northern Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.4	NA	See Appendix B, Table 3.4	NA	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.4	NA	See Appendix B, Table 3.4	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,400	USEPA, 1997b, 2001	5,400	USEPA, 1997b, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997b	0.2	USEPA, 1997b	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.14
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW- 6 (Northern Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	CS x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.4	NA	See Appendix B, Table 3.4	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	--	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA, 2001b	330	USEPA, 2001b	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.4	NA	See Appendix B, Table 3.4	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA, 2001	0.2 [b]	USEPA, 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worker based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA, 2001, Exhibit 3-3).

Table 4.15
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-10 (Northern Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	CS x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.5	NA	See Appendix B, Table 3.5	NA	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC and NYSDOL, 1998a	1	NYSDEC and NYSDOL, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.5	NA	See Appendix B, Table 3.5	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS /
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	(BW x AT)
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	0.3	USEPA, 1997a	0.15	USEPA, 1997a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.16
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-10 (Northern Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.5	NA	See Appendix B, Table 3.5	NA	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.5	NA	See Appendix B, Table 3.5	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,400	USEPA, 1997b, 2001	5,400	USEPA, 1997b, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997b	0.2	USEPA, 1997b	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.17
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-10 (Northern Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.5	NA	See Appendix B, Table 3.5	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	--	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA, 2001b	330	USEPA, 2001b	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.5	NA	See Appendix B, Table 3.5	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 1997a, 2001	5,700	USEPA, 1997a, 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA, 2001	0.2 [b]	USEPA, 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worker based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA, 2001, Exhibit 3-3).

Table 4.18
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-12 (Southern Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA,1989b	25,550	USEPA,1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.6	NA	See Appendix B, Table 3.6	NA	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.6	NA	See Appendix B, Table 3.6	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	0.3	USEPA, 1997a	0.15	USEPA, 1997a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.19
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-12 (Southern Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.6	NA	See Appendix B, Table 3.6	NA	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.6	NA	See Appendix B, Table 3.6	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,400	USEPA, 1997b, 2001	5,400	USEPA, 1997b, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997a	0.2	USEPA, 1997a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.20
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-12 (Southern Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.6	NA	See Appendix B, Table 3.6	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	[v]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	--	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA, 2001b	330	USEPA, 2001b	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.6	NA	See Appendix B, Table 3.6	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	NA	0.000001	NA	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA, 2001	0.2 [b]	USEPA, 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA, 1989b	730	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worked based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA 2001, exhibit 3-3)

Table 4.21
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-19 (Southern Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.7	NA	See Appendix B, Table 3.7	NA	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.7	NA	See Appendix B, Table 3.7	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA, 2001	5,700	USEPA, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	0.3	USEPA, 1997a	0.15	USEPA, 1997a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	ED	Exposure duration	years	30	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	70	USEPA, 1991a	70	USEPA, 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	10,950	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.22
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-19 (Southern Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.7	NA	See Appendix B, Table 3.7	NA	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC, 1998a	1	NYSDEC, 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA, 1991a	50	USEPA, 1991a	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.7	NA	See Appendix B, Table 3.7	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA, 1989b	0.000001	USEPA, 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,400	USEPA, 1997b, 2001	5,400	USEPA, 1997b, 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA, 1997a	0.2	USEPA, 1997a	
	EF	Exposure frequency	days/year	14	BPJ[a]	5	BPJ[a]	
	ED	Exposure duration	years	12	USEPA, 1991a	9	USEPA, 1991a	
	BW	Body weight	kg	43	USEPA, 1997a,b	43	USEPA, 1997a,b	
	AT	Averaging time - carcinogens	days	25,550	USEPA, 1989b	25,550	USEPA, 1989b	
	AT	Averaging time - non-carcinogens	days	4,380	USEPA, 1989b	3,285	USEPA, 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA, 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.23
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Surface Sediments
Exposure Medium: Wetland Sediment
Exposure Point: Wetland SYW-19 (Southern Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.7	NA	See Appendix B, Table 3.7	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	--	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA 2001b	330	USEPA 2001b	
Dermal	CS	Chemical concentration in sediment	mg/kg	See Appendix B, Table 3.7	NA	See Appendix B, Table 3.7	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA 2001	5,700	USEPA 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA 2001	0.2 [b]	USEPA 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worker based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA, 2001, Exhibit 3-3).

Table 4.24
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	10,950	USEPA 1989b	3,285	USEPA 1989b	CS x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	CS	Chemical concentration in surface soil	mg/kg	See Appendix B, Table 3.8	NA	See Appendix B, Table 3.8	NA	
	ED	Exposure duration	years	30	USEPA 1991a	9	USEPA 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC 1998a	1	NYSDEC 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA 1991a	50	USEPA 1991a	
Dermal	CS	Chemical concentration in surface soil	mg/kg	See Appendix B, Table 3.8	NA	See Appendix B, Table 3.8	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS /
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	(BW x AT)
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA 2001	5,700	USEPA 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	0.3	USEPA 1997a	0.15	USEPA 1997a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	30	USEPA 1991a	9	USEPA 1991a	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	10,950	USEPA 1989b	3,285	USEPA 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.25
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	4,380	USEPA 1989b	3,285	USEPA 1989b	
	BW	Body weight	kg	43	USEPA 1997b	43	USEPA 1997b	
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	CS	Chemical concentration in surface soil	mg/kg	See Appendix B, Table 3.8	NA	See Appendix B, Table 3.8	NA	
	ED	Exposure duration	years	12	USEPA 1991a	9	USEPA 1991a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	FI	Fraction ingested	--	1	NYSDEC 1998a	1	NYSDEC 1998a	
	IR	Ingestion rate	mg soil/day	100	USEPA 1991a	50	USEPA 1991a	
Dermal	CS	Chemical concentration in surface soil	mg/kg	See Appendix B, Table 3.8	NA	See Appendix B, Table 3.8	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,400	USEPA 2001	5,400	USEPA 2001	
	AF	Sediment/soil-to-skin adherence factor	mg/cm^2	2.7	USEPA 1997a	0.2	USEPA 1997a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	12	USEPA 1991a	9	USEPA 1991a	
	BW	Body weight	kg	43	USEPA 1997b	43	USEPA 1997b	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	4,380	USEPA 1989b	3,285	USEPA 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

Table 4.26
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	CS x CF x IR x FI x EF x ED / (BW x AT)
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	CS	Chemical concentration in surface soil	mg/kg	See Appendix B, Table 3.8	NA	See Appendix B, Table 3.8	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	--	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA 2001b	330	USEPA 2001b	
Dermal	CS	Chemical concentration in surface soil	mg/kg	See Appendix B, Table 3.8	NA	See Appendix B, Table 3.8	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA 2001	5,700	USEPA 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA 2001	0.2 [b]	USEPA 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worker based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA, 2001, Exhibit 3-3).

Table 4.27
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface and Subsurface Soils
Exposure Point: Dredge Spoil Soils (0-11.7 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x IR x FI x EF x ED / (BW x AT)
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	CS	Chemical concentration in surface and subsurface soils	mg/kg	See Appendix B, Table 3.9	NA	See Appendix B, Table 3.9	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	FI	Fraction ingested	--	1	BPJ[a]	1	BPJ[a]	
	IR	Ingestion rate	mg soil/day	330	USEPA 2001b	330	USEPA 2001b	
Dermal	CS	Chemical concentration in surface and subsurface soils	mg/kg	See Appendix B, Table 3.9	NA	See Appendix B, Table 3.9	NA	Chronic Daily Intake (CDI) (mg/kg-day) = CS x CF x SA x AF x EF x ED x ABS / (BW x AT)
	CF	Conversion factor	kg/mg	0.000001	USEPA 1989b	0.000001	USEPA 1989b	
	SA	Skin surface area available for contact	cm^2/event	5,700	USEPA 2001	5,700	USEPA 2001	
	AF	Soil-to-skin adherence factor	mg/cm^2	0.9 [b]	USEPA 2001	0.2 [b]	USEPA 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	
	ABS	Dermal absorption factor - all COPCs	unitless	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	Chemical-specific; see Chapter 4, Table 4-1	USEPA 2001	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[b] AF for construction worker based on 95th percentile (for RME) and geometric mean (CT) for utility workers (USEPA, 2001, Exhibit 3-3).

Table 4.28
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	10,950	USEPA 1989b	3,285	USEPA 1989b	CW x CF x IR x EF x ED x ET / (BW x AT)
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	CF	Conversion factor	L/mL	0.001	USEPA 1989b	0.001	USEPA 1989b	
	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	
	ED	Exposure duration	years	30	USEPA 1989b	9	USEPA 1989b	
	EF	Exposure frequency	events/year	44	BPJ[a]	32	BPJ[a]	
	ET	Exposure time	hours/event	2.6	USEPA 1997a	1	USEPA 1989b	
	IR	Ingestion rate	mL/hour	50	USEPA 1989b	50	USEPA 1989b	
Dermal	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	Chronic Daily Intake (CDI) (mg/kg-day) = DA(event) x CF x SA x EF x ED x EV /
	CF	Conversion factor	L/cm^3	0.001	USEPA 1989b	0.001	USEPA 1989b	(BW x AT)
	DA(event)	Absorbed dose per event [2]	mg/cm^2-event	calculated	USEPA 2001	calculated	USEPA 2001	
	SA	Skin surface area available for contact	cm^2	18,000	USEPA 2001	18,000	USEPA 2001	
	PC	Chem.-spec. dermal permeability constant [1]	cm/hour	chem. spec.	USEPA 2001	chem. spec.	USEPA 2001	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	30	USEPA 1989b	9	USEPA 1989b	
	ET	Exposure time [3]	hours/day	2.6	USEPA 1997a	1	USEPA 1989b	
	EV	Event frequency	events/day	1.0	USEPA 2001	1.0	USEPA 2001	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	10,950	USEPA 1989b	3,285	USEPA 1989b	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[1] Dermal PCs for inorganics and organics in water presented in Exhibit 3-1 and Exhibit B-3 of RAGS Part E (USEPA, 2001) respectively.

[2] The equations to calculate the absorbed dose per event are available in RAGS Part E (USEPA, 2001).

[3] Exposure time for RME is 2.6 hours based on swimming, average value, presented in RAGS Part A (USEPA, 1989). CT value from USEPA, 1997a, Table 15-176.

Table 4.29
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	2,190	USEPA 1989b	2,190	USEPA 1989b	CW x CF x IR x EF x ED x ET / (BW x AT)
	BW	Body weight	kg	15	USEPA 1997b	15	USEPA 1997b	
	CF	Conversion factor	L/mL	0.001	USEPA 1989b	0.001	USEPA 1989b	
	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	
	ED	Exposure duration	years	6	USEPA 1997a	6	USEPA 1997a	
	EF	Exposure frequency	events/year	44	BPJ[a]	32	BPJ[a]	
	ET	Exposure time	hours/event	2.6	USEPA 1997a	1	USEPA 1989b	
	IR	Ingestion rate	mL/hour	50	USEPA 1989b	50	USEPA 1989b	
Dermal	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	Chronic Daily Intake (CDI) (mg/kg-day) = DA(event) x CF x SA x EF x ED x EV /
	CF	Conversion factor	L/cm^3	0.001	USEPA 1989b	0.001	USEPA 1989b	(BW x AT)
	DA(event)	Absorbed dose per event [2]	mg/cm^2-event	calculated	USEPA 2001	calculated	USEPA 2001	
	SA	Skin surface area available for contact	cm^2	6,600	USEPA 2001	6,600	USEPA 2001	
	PC	Chem.-spec. dermal permeability constant [1]	cm/hour	chem. spec.	USEPA 1999a	chem. spec.	USEPA 1999a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	6	USEPA 1997a	6	USEPA 1997a	
	ET	Exposure time [3]	hours/day	2.6	USEPA 1997a	1	USEPA 1989b	
	EV	Event frequency	events/day	1.0	USEPA 2001	1.0	USEPA 2001	
	BW	Body weight	kg	15	USEPA 1997b	15	USEPA 1997b	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	2,190	USEPA 1989b	2,190	USEPA 1989b	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[1] Dermal PCs for inorganics in water presented in Exhibit 3-1 of RAGS Part E (USEPA, 2001). Dermal PCs for organics in water presented in Exhibit B-3 of RAGS Part E (USEPA, 2001).

[2] The equations to calculate the absorbed dose per event are available in RAGS Part E (USEPA, 2001).

[3] Exposure time for RME is 2.6 hours based on swimming, average value, presented in RAGS Part A (USEPA, 1989). CT value from USEPA, 1997a, Table 15-176.

Table 4.30
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	4,380	USEPA 1989b	3,285	USEPA 1989b	CW x CF x IR x EF x ED x ET / (BW x AT)
	BW	Body weight	kg	43	USEPA 1997b	43	USEPA 1997b	
	CF	Conversion factor	L/mL	0.001	USEPA 1989b	0.001	USEPA 1989b	
	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	
	ED	Exposure duration	years	12	USEPA 1997a	9	USEPA 1997a	
	EF	Exposure frequency	events/year	44	BPJ[a]	32	BPJ[a]	
	ET	Exposure time	hours/event	2.6	USEPA 1997a	1	USEPA 1989b	
	IR	Ingestion rate	mL/hour	50	USEPA 1989b	50	USEPA 1989b	
Dermal	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	Chronic Daily Intake (CDI) (mg/kg-day) = DA(event) x CF x SA x EF x ED x EV /
	CF	Conversion factor	L/cm^3	0.001	USEPA 1989b	0.001	USEPA 1989b	(BW x AT)
	DA(event)	Absorbed dose per event [2]	mg/cm^2-event	calculated	USEPA 2001	calculated	USEPA 2001	
	SA	Skin surface area available for contact	cm^2	13,000	USEPA 2001	13,000	USEPA 2001	
	PC	Chem.-spec. dermal permeability constant [1]	cm/hour	chem. spec.	USEPA 1999a	chem. spec.	USEPA 1999a	
	EF	Exposure frequency	days/year	44	BPJ[a]	32	BPJ[a]	
	ED	Exposure duration	years	12	USEPA 1997a	9	USEPA 1997a	
	ET	Exposure time [3]	hours/day	2.6	USEPA 1997a	1	USEPA 1989b	
	EV	Event frequency	events/day	1.0	USEPA 2001	1.0	USEPA 2001	
	BW	Body weight	kg	43	USEPA 1997b	43	USEPA 1997b	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	4,380	USEPA 1989b	3,285	USEPA 1989b	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[1] Dermal PCs for inorganics in water presented in Exhibit 3-1 of RAGS Part E (USEPA, 2001). Dermal PCs for organics in water presented in Exhibit B-3 of RAGS Part E (USEPA, 2001).

[2] The equations to calculate the absorbed dose per event are available in RAGS Part E (USEPA, 2001).

[3] Exposure time for RME is 2.6 hours based on swimming, average value, presented in RAGS Part A (USEPA, 1989). CT value from USEPA, 1997a, Table 15-176.

Table 4.31
Values Used for Daily Intake Calculations
Onondaga Lake

Scenario Time Frame: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME RME Value	RME Rationale/ Reference	CT CT Value	CT Rationale/ Reference	Intake Equation/ Model Name
Ingestion	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	Chronic Daily Intake (CDI) (mg/kg-day) =
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	CW x CF x IR x EF x ED x ET / (BW x AT)
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	CF	Conversion factor	L/mL	0.001	USEPA 1989a	0.001	USEPA 1989a	
	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	EF	Exposure frequency	events/year	25	BPJ[a]	10	BPJ[a]	
	ET	Exposure time	hours/event	1	BPJ[a]	0.5	BPJ[a]	
	IR	Ingestion rate	mL/hour	12	BPJ[a]	12	BPJ[a]	
Dermal	CW	Chemical concentration in surface water	mg/L	See Appendix B, Table 3.10	NA	See Appendix B, Table 3.10	NA	Chronic Daily Intake (CDI) (mg/kg-day) = DA(event) x CF x SA x EF x ED x EV /
	CF	Conversion factor	L/cm^3	0.001	USEPA 1989b	0.001	USEPA 1989b	(BW x AT)
	DA(event)	Absorbed dose per event [2]	mg/cm^2-event	calculated	USEPA 2001	calculated	USEPA 2001	
	SA	Skin surface area available for contact	cm^2	5,700	USEPA 2001	5,700	USEPA 2001	
	PC	Chemical-specific dermal permeability constant	cm/hour	chemical- specific	USEPA 1999a, 2001	chemical specific	USEPA 1999a, 2001	
	EF	Exposure frequency	days/year	25	BPJ[a]	10	BPJ[a]	
	ED	Exposure duration	years	2	BPJ[a]	2	BPJ[a]	
	ET	Exposure time	hours/day	1	BPJ[a]	0.5	BPJ[a]	
	EV	Event frequency	events/day	1.0	USEPA 2001	1.0	USEPA 2001	
	BW	Body weight	kg	70	USEPA 1991a	70	USEPA 1991a	
	AT	Averaging time - carcinogens	days	25,550	USEPA 1989b	25,550	USEPA 1989b	
	AT	Averaging time - non-carcinogens	days	730	USEPA 1989b	730	USEPA 1989b	

Notes: NA – not applicable

[a] Based on best professional judgment (BPJ).

[1] The equations to calculate the absorbed dose per event are available in RAGS Part E (USEPA, 2001).

[2] The equations to calculate the absorbed dose per event are available in RAGS Part E (USEPA, 2001), and Section 4.5 of this text.

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
ONONDAGA LAKE NPL SITE

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ(s)	Combined Uncertainty / Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (MM/DD/YY)
Inorganics										
Aluminum	Chronic	1	mg/kg-day	1	1	mg/kg-day	Skeletal, skin	Not Reported	NCEA; ATSDR	11/01/00 & 09/25/01
Antimony	Chronic	0.0004	mg/kg-day	0.15	0.00006	mg/kg-day	Whole Body/Blood	1000/1	IRIS	02/25/02
Arsenic	Chronic	0.0003	mg/kg-day	1	0.0003	mg/kg-day	Skin	3/1	IRIS	02/25/02
Barium	Chronic	0.07	mg/kg-day	0.07	0.0049	mg/kg-day	Cardiovascular System	3/1	IRIS/HEAST	02/25/02 and 07/31/97
Cadmium (sediment/soil)	Chronic	0.001	mg/kg-day	0.025	0.000025	mg/kg-day	Kidneys	10/1	IRIS	02/25/02
Cadmium (surface water)	Chronic	0.0005	mg/kg-day	0.025	0.0000125	mg/kg-day	Kidneys	10/1	IRIS	02/25/02
Chromium (VI)	Chronic	0.003	mg/kg-day	0.025	0.000075	mg/kg-day	None reported	300/3	IRIS	02/25/02
Chromium (III) (insoluble salts) *	Chronic	1.5	mg/kg-day	0.013	0.0195	mg/kg-day	NOAEL	100/10	IRIS	5/16/2002
Copper	Chronic	0.04	mg/kg-day	1	0.04	mg/kg-day	Liver/Kidneys/Forestomach	2/1	NCEA	06/28/02
Cyanide (Free cyanide)	Chronic	0.02	mg/kg-day	1	0.02	mg/kg-day	Whole Body/Blood	100/5	IRIS/HEAST	02/25/02 and 07/31/97
Iron	Chronic	0.3	mg/kg-day	1	0.3	mg/kg-day	Liver, spleen, lymph system	Not Reported	NCEA; Sittig	11/01/00; 1991
Lead	Chronic	No data	mg/kg-day	NA	NA	mg/kg-day	CNS, blood, whole body	NA	IRIS/HEAST/ATSDR	11/01/00 & 09/25/01
Manganese	Chronic	0.14	mg/kg-day	0.04	0.0056	mg/kg-day	Central Nervous System	1/1	IRIS	02/25/02
Manganese (non-dietary ingestion)**	Chronic	0.023	mg/kg-day	Ingestion only	NA	mg/kg-day	Central Nervous System	1/6	IRIS	02/25/02
Total mercury (inorganic as $HgCl_2$)	Chronic	0.0003	mg/kg-day	0.07	0.000021	mg/kg-day	Immune System	1000/1	IRIS	02/25/02
Methylmercury	Chronic	0.0001	mg/kg-day	1	0.0001	mg/kg-day	Developmental	10/1	IRIS	02/25/02
Nickel	Chronic	0.02	mg/kg-day	0.04	0.0008	mg/kg-day	Whole Body/Major Organs	300/1	IRIS	02/25/02
Selenium	Chronic	0.005	mg/kg-day	Ingestion only	NA	mg/kg-day	Whole Body	3/1	IRIS/HEAST	02/25/02 and 07/31/97
Thallium	Chronic	0.000066	mg/kg-day	1	0.000066	mg/kg-day	NOAEL; various	Not Reported	NCEA; IRIS/ATSDR	11/01/00
Vanadium	Chronic	0.007	mg/kg-day	0.026	0.000182	mg/kg-day	Not Reported/Unknown	100/1	HEAST/ATSDR	07/31/97
Zinc	Chronic	0.3	mg/kg-day	Ingestion only	NA	NA	Blood	3/1	IRIS	05/17/02
VOCs										
Benzene	Chronic	0.003	mg/kg-day	1	0.003	mg/kg-day	Immune System/Blood	3000/1	NCEA	06/28/02
Bromodichloromethane	Chronic	0.02	mg/kg-day	1	0.02	mg/kg-day	Kidney	1000/1	IRIS	02/25/02
Chlorobenzene	Chronic	0.02	mg/kg-day	1	0.02	mg/kg-day	Liver	1000/1	IRIS	02/25/02
Chloroform	Chronic	0.01	mg/kg-day	1	0.01	mg/kg-day	Liver	100/1	IRIS	02/25/02
Methylene chloride	Chronic	0.06	mg/kg-day	1	0.06	mg/kg-day	Liver	100/1	IRIS	02/25/02
Total (sum of) Xylenes	Chronic	2	mg/kg-day	1	2	mg/kg-day	NOAEL; CNS	100/1	IRIS	02/25/02
SVOCs										
bis(2-Ethylhexyl)phthalate	Chronic	0.02	mg/kg-day	Ingestion only	NA	mg/kg-day	Liver	1000/1	IRIS	02/25/02
Dibenzofuran	Chronic	0.004	mg/kg-day	1	0.004	mg/kg-day	Liver	3000/1	NCEA	06/28/02
1,2-Dichlorobenzene	Chronic	0.09	mg/kg-day	1	0.09	mg/kg-day	NOAEL	1000/1	IRIS	02/25/02
1,3-Dichlorobenzene	Chronic	0.0009	mg/kg-day	1	0.0009	mg/kg-day	Liver/Pituitary Gland	10000/1	NCEA	06/28/02
1,4-Dichlorobenzene	Chronic	0.03	mg/kg-day	1	0.03	mg/kg-day	Skin/Blood	1000/1	NCEA; ATSDR	06/28/02
Hexachlorobenzene	Chronic	0.0008	mg/kg-day	1	0.0008	mg/kg-day	Liver	100/1	IRIS	02/25/02
1,2,4-Trichlorobenzene	Chronic	0.01	mg/kg-day	1	0.01	mg/kg-day	Adrenal/Liver/Kidney	1000/1	IRIS	3/08/02

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
ONONDAGA LAKE NPL SITE

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ(s)	Combined Uncertainty / Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (MM/DD/YY)
PAHs										
Acenaphthylene (5)	Chronic	0.03	mg/kg-day	1	0.03	mg/kg-day	Kidney	3000/1	IRIS	02/25/02
Benz(a)anthracene	NA									
Benzo(a)pyrene	NA									
Benzo(b)fluoranthene	NA									
Benzo(g,h,i)perylene (5)	Chronic	0.03	mg/kg-day	1	0.03	mg/kg-day	Kidney	3000/1	IRIS	02/25/02
Benzo(k)fluoranthene	NA									
Chrysene	NA									
Dibenz(a,h)anthracene	NA									
Fluoranthene	Chronic	0.04	mg/kg-day	1	0.04	mg/kg-day	Kidney/Liver/Blood	3000/1	IRIS/HEAST	02/25/02 and 07/31/97
Indeno(1,2,3-cd)pyrene	NA									
2-Methylnaphthalene	Chronic	0.02	mg/kg-day	1	0.02	mg/kg-day	Lungs/Decreased body weight	3000/1	NCEA	07/02/02
Naphthalene	Chronic	0.02	mg/kg-day	1	0.02	mg/kg-day	Decreased body weight	3000/1	IRIS	02/25/02
Phenanthrene (5)	Chronic	0.03	mg/kg-day	1	0.03	mg/kg-day	Kidney	3000/1	IRIS	02/25/02
Pesticides										
Aldrin	Chronic	0.00003	mg/kg-day	1	0.00003	mg/kg-day	Liver	1000/1	IRIS	02/25/02
delta-BHC (6)	Chronic	0.0003	mg/kg-day	Ingestion only	NA		Liver/kidney	1000/1	IRIS	07/09/02
Total (Sum of) Chlordanes	Chronic	0.0005	mg/kg-day	Ingestion only	NA		Liver	300/1	IRIS/HEAST	02/25/02 and 07/31/97
2,4'- DDE (7)	NA			Ingestion only	NA					
4,4'-DDD	Chronic	0.003	mg/kg-day	Ingestion only	NA		Liver	10000/1	NCEA	06/28/02
4,4'-DDE	Chronic	0.0007	mg/kg-day	Ingestion only	NA		Liver	10000/1	NCEA	06/28/02
4,4'-DDT	Chronic	0.0005	mg/kg-day	Ingestion only	NA		Liver	100/1	IRIS	02/25/02
Dieldrin	Chronic	0.00005	mg/kg-day	1	0.00005	mg/kg-day	Liver	100/1	IRIS	02/25/02
Heptachlor epoxide	Chronic	0.000013	mg/kg-day	Ingestion only	NA	mg/kg-day	Liver	1000/1	IRIS	02/25/02
PCBs										
Aroclor 1016	Chronic	0.00007	mg/kg-day	Ingestion only	NA	mg/kg-day	Reduced Birth Weights	100/1	IRIS	02/25/02
Aroclor 1221	Chronic	0.00007	mg/kg-day	1	0.00007	mg/kg-day	Assumed same as Ar 1016	Ar 1016	Ar 1016	Low MW PCB
Aroclor 1242	Chronic	0.00007	mg/kg-day	1	0.00007	mg/kg-day	Assumed same as Ar 1016	Ar 1016	Ar 1016	Low MW PCB
Aroclor 1248	Chronic	0.00002	mg/kg-day	1	0.00002	mg/kg-day	Assumed same as Ar 1254	Ar 1254	Ar 1254	High MW PCB
Aroclor 1254	Chronic	0.00002	mg/kg-day	1	0.00002	mg/kg-day	Immune System	300/1	IRIS/HEAST	02/25/02 and 07/31/97
Aroclor 1260	Chronic	0.00002	mg/kg-day	1	0.00002	mg/kg-day	Assumed same as Ar 1254	Ar 1254	Ar 1254	High MW PCB
Aroclors 1254 & 1260	Chronic	0.00002	mg/kg-day	Ingestion only	NA	mg/kg-day	Assumed same as Ar 1254	Ar 1254	Ar 1254	High MW PCB
Aroclor 1268	Chronic	0.00002	mg/kg-day	1	0.00002	mg/kg-day	Assumed same as Ar 1254	Ar 1254	Ar 1254	High MW PCB
Total (Sum of) PCBs	NA	Assessed as either individual aroclor or grouped as 'low molecular weight arolcor' or 'high molecular weight aroclor'								
Dioxins/Furans										
Total PCDD/PCDF TEQ	NA									

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
ONONDAGA LAKE NPL SITE

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ(s)	Combined Uncertainty / Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (MM/DD/YY)

NOTES FOR TABLE 5-1

Values from NCEA and HEAST are provisional; USEPA/NCEA review/verification has been requested.
NA = Not Applicable. This COPC was not evaluated for non-cancer toxicity.
NR = Not reported
* Toxicity data for Chromium(III) shown for comparison purposes; all chromium assumed to be Chromium(VI) for this HHRA. See text for discussion.
** IRIS file for manganese recommends a modifying factor (MF) of 6 for non-dietary ingestion of manganese; factor shown does not include the MF.
(1) See RAGS Part E, Exhibit 4-1, and HHRA Table 4-1. If COPC is flagged 'yes' for adjust, that factor is shown here. All other COPCs (those flagged 'No' for "Adjust?") are assigned a factor of 1.
(2) Adjusted Dermal RfD = Oral RfD x Oral to Dermal Adjustment Factor
(3) For IRIS values, the date IRIS was searched is shown. (Text references to IRIS identify IRIS file dates as most recent revision shown under "revision history" section of file.)
For HEAST values, the date of HEAST publication is shown (most recent version is 7/31/97).
NCEA values were obtained from EPA Region III Risk-Based Concentration (RBC) Table (Revised 9/25/01) and Region IX PRG Table (Revised 11/1/00). Dates of original NCEA files unknown.
(4) HEAST value shown is from Region 9 PRG tables; could not be confirmed on HEAST (1997) document.
(5) Based on NCEA guidance the pyrene was used as surrogate for toxicity
(6) Based on NCEA guidance the gamma-BHC (lindane) was used as surrogate for toxicity
(7) 2,4-DDE was screened against Region 3 fish ingestion criterion for 'DDE' (unspecified isomer). 2,4-DDE will be assessed qualitatively only (EPC compared to screening criterion)

TABLE 6.1
CANCER TOXICITY DATA – ORAL/DERMAL
ONONDAGA LAKE NPL SITE

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/Cancer Guideline Description (USEPA Group)	Source Target Organ	Date (2) (MM/DD/YY)
Metals/Inorganics							
Aluminum	NA	1	NA	$(mg/kg/day)^{-1}$	Not classified [no IRIS file]	NA	NA
Antimony	NA	0.15	NA	$(mg/kg/day)^{-1}$	Not evaluated in IRIS	NA	05/16/02
Arsenic, inorganic	1.5E+00	1	1.5E+00	$(mg/kg/day)^{-1}$	A	Skin (IRIS)	05/16/02
Barium and compounds	NA	0.07	NA	$(mg/kg/day)^{-1}$	Not likely (oral) [1996 guidelines]	NA (oral)	05/16/02
Cadmium	NA	0.025	NA	$(mg/kg/day)^{-1}$	B(1) (inhalation only)	NA (oral)	05/16/02
Chromium (VI)	NA	0.025	NA	$(mg/kg/day)^{-1}$	D by oral route; A by inhalation	NA (oral)	06/16/02
Chromium (III)	NA	0.013	NA	$(mg/kg/day)^{-1}$	D	NA	05/16/02
Copper	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/17/02
Cyanide	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/17/02
Iron	NA	1	NA	$(mg/kg/day)^{-1}$	Not classified (no IRIS/ATSDR file)	NA	NA
Lead	NA	NA	NA	$(mg/kg/day)^{-1}$	B(2)	Kidneys (IRIS)	05/20/02
Manganese	NA	0.04	NA	$(mg/kg/day)^{-1}$	D	NA	05/20/02
Methylmercury	NA	Ingestion only	NA	$(mg/kg/day)^{-1}$	C	Kidneys (IRIS)	05/20/02
Total mercury (inorganic, as $HgCl_2$)	NA	0.07	NA	$(mg/kg/day)^{-1}$	C	GI, kidneys	05/20/02
Nickel (as soluble salts)	NA	0.04	NA	$(mg/kg/day)^{-1}$	Not evaluated in IRIS	NA	05/20/02
Selenium	NA	Ingestion only	NA	$(mg/kg/day)^{-1}$	D	NA	05/20/02
Thallium	NA	1	NA	$(mg/kg/day)^{-1}$	D (TlCl; Tl_2SO_4)	NA	05/20/02
Vanadium	NA	0.026	NA	$(mg/kg/day)^{-1}$	Not classified (ATSDR; no IRIS)	NA	9/95 (ATSDR)
Zinc	NA	Ingestion only	NA	$(mg/kg/day)^{-1}$	D	NA	05/20/02
Volatile Organic Compounds							
Benzene (3)	5.5E-02	1	5.5E-02	$(mg/kg/day)^{-1}$	A	Blood, other organs	05/17/02
Bromodichloromethane	6.2E-02	1	6.2E-02	$(mg/kg/day)^{-1}$	B(2)	Kidneys (IRIS)	05/20/02
Chlorobenzene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/17/02
Chloroform	NA	1	NA	$(mg/kg/day)^{-1}$	B(2); 'likely' by 1996 guidelines	Kidneys, liver (IRIS)	05/17/02
Methylene chloride	7.5E-03	1	7.5E-03	$(mg/kg/day)^{-1}$	B(2)	Liver, others (IRIS)	05/17/02
Total xylenes (sum)	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/21/02

TABLE 6.1
CANCER TOXICITY DATA – ORAL/DERMAL
ONONDAGA LAKE NPL SITE

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/Cancer Guideline Description (USEPA Group)	Source Target Organ	Date (2) (MM/DD/YY)
Semivolatile Organic Compounds							
Bis(2-ethylhexyl)phthalate	1.4E-02	NA	Ingestion only	$(mg/kg/day)^{-1}$	B(2)	Liver	05/20/02
Dibenzofuran	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/20/02
1,2-Dichlorobenzene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/20/02
1,3-Dichlorobenzene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/20/02
1,4-Dichlorobenzene	2.4E-02	1	2.4E-02	$(mg/kg/day)^{-1}$	C	NA	HEAST, 1997
Hexachlorobenzene	1.6E+00	1	1.6E+00	$(mg/kg/day)^{-1}$	B(2)	Liver, thyroid, kidneys	05/20/02
1,2,4-Trichlorobenzene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	
Polycyclic Aromatic Hydrocarbons							
Acenaphthylene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/16/02
Benz[a]anthracene (4)	7.3E-01	1	7.3E-01	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	05/16/02
Benzo[a]pyrene (BaP)	7.3E+00	1	7.3E+00	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	05/16/02
Benzo[b]fluoranthene (4)	7.3E-01	1	7.3E-01	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	06/16/02
Benzo(g,h,i)perylene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/16/02
Benzo[k]fluoranthene (4)	7.3E-02	1	7.3E-02	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	05/16/02
Chrysene (4)	7.3E-03	1	7.3E-03	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	05/16/02
Dibenz[a,h]anthracene (4)	7.3E+00	1	7.3E+00	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	5/1602
Fluoranthene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/17/02
Indeno(1,2,3-cd)perylene (4)	7.3E-01	1	7.3E-01	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	05/17/02
2-Methylnaphthalene	NA	1	NA	$(mg/kg/day)^{-1}$	No IRIS/ATSDR file. Not classified	NA	No IRIS/ATSDR file
Naphthalene	NA	1	NA	$(mg/kg/day)^{-1}$	C; 'cannot be determined' [1996]	NA	05/17/02
Phenanthrene	NA	1	NA	$(mg/kg/day)^{-1}$	D	NA	05/17/02
Pesticides							
Aldrin	1.7E+01	1	1.7E+01	$(mg/kg/day)^{-1}$	B(2)	Liver (IRIS)	05/17/02
delta-HCH	NA	NA	Ingestion only	$(mg/kg/day)^{-1}$	D	NA	05/21/02
Chlordane (total, as technical)	3.5E-01	NA	Ingestion only	$(mg/kg/day)^{-1}$	B(2)	Liver (IRIS)	05/17/02
2,4'-DDE	NA	NA	Ingestion only	$(mg/kg/day)^{-1}$	No IRIS/ATSDR file. Not classified	NA	No IRIS/ATSDR file
4,4'-DDD	2.4E-01	NA	Ingestion only	$(mg/kg/day)^{-1}$	B(2)	Liver, lungs (IRIS)	05/21/02

TABLE 6.1
CANCER TOXICITY DATA – ORAL/DERMAL
ONONDAGA LAKE NPL SITE

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/Cancer Guideline Description (USEPA Group)	Source Target Organ	Date (2) (MM/DD/YY)
4,4'-DDE	3.4E-01	NA	Ingestion only	$(mg/kg/day)^{-1}$	B(2)	Liver (IRIS)	05/17/02
4,4'-DDT	3.4E-01	NA	Ingestion only	$(mg/kg/day)^{-1}$	B(2)	Liver (IRIS)	05/21/02
Dieldrin	1.6E+01	1	1.6E+01	$(mg/kg/day)^{-1}$	B(2)	Tumors (IRIS)	5/17.02
Heptachlor epoxide	9.1E+00	NA	Ingestion only	$(mg/kg/day)^{-1}$	B(2)	Liver (IRIS)	05/17/02
Polychlorinated Biphenyls							
Aroclor 1016 (5)	NA	1	NA	$(mg/kg/day)^{-1}$	Not evaluation (see 'PCBs')	See 'PCBs'	05/20/02
Aroclor 1221 (5)	NA	1	NA	$(mg/kg/day)^{-1}$	No IRIS file (see 'PCBs')	See 'PCBs'	NA (5)
Aroclor 1242 (5)	NA	1	NA	$(mg/kg/day)^{-1}$	No IRIS file (see 'PCBs')	See 'PCBs'	NA (5)
Aroclor 1248 (5)	NA	1	NA	$(mg/kg/day)^{-1}$	No IRIS evaluation (see 'PCBs')	See 'PCBs'	05/20/02
Aroclor 1254 (5)	NA	1	NA	$(mg/kg/day)^{-1}$	No IRIS evaluation (see 'PCBs')	See 'PCBs'	05/20/02
Aroclor 1260 (5)	NA	1	NA	$(mg/kg/day)^{-1}$	No IRIS file (see 'PCBs')	See 'PCBs'	NA (5)
Aroclor 1254/1260	NA	NA	Ingestion only	$(mg/kg/day)^{-1}$	No IRIS file (see 'PCBs')	See 'PCBs'	NA (5)
Aroclor 1268 (5)	NA	1	NA	$(mg/kg/day)^{-1}$	No IRIS file (see 'PCBs')	See 'PCBs'	NA (5)
PCBs (6)	2.0E+00	1	2.0E+00	$(mg/kg/day)^{-1}$	B(2)	Liver (IRIS)	05/20/02
PCBs (7)	1.0E+00	1	1.0E+00	$(mg/kg/day)^{-1}$	B(2)	Liver (IRIS)	05/20/02
Dioxins/Furans							
PCDD TEQ (as 2378-TCDD) (8)	1.5E+05	1	1.5E+05	$(mg/kg/day)^{-1}$	B(2)	Liver, respiratory	HEAST, 1997

Notes: ATSDR – Agency for Toxic Substances and Disease Registry
HEAST – Health Effects Assessment Summary Tables
IRIS – Integrated Risk Information System
NA – Not applicable
NCEA – National Center for Environmental Assessment
NPL – National Priorities List
WHO – World Health Organization

(1) Adjusted CSF – Oral CSF * adjustment factor.
(2) Dates for IRIS indicate the date IRIS was searched, not the revision date of the IRIS file.
Dates for all HEAST are July 1997, last known revision of HEAST.
Dates for NCEA are the dates of the USEPA Region 3 RBCs and Region 9 PRGs from which the NCEA data were found. Date of original file unknown.
Dates for ATSDR data are the date indicated on the document.
(3) Benzene oral slope factor is a range from $1.5e^{-2}$ to $5.5e^{-2}$ with no preference stated for any value in the range (IRIS). The higher value has been utilized.

TABLE 6.1
CANCER TOXICITY DATA – ORAL/DERMAL
ONONDAGA LAKE NPL SITE

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/Cancer Guideline Description (USEPA Group)	Source Target Organ	Date (2) (MM/DD/YY)

(4) CSFs for these PAHs derived from that of benzo(a)pyrene in accordance with *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons* (USEPA, 1993).
(5) Individual PCB/Aroclor mixtures are assessed for cancer risk as ' total PCBs '.

(6) The IRIS file for PCBs provides a range of CSF values. The CSF used is the highest (most conservative) used for the RME risk calculations; see discussion and rationale in Chapter 5.
(7) The IRIS file for PCBs provides a range of CSF values. The CSF used is the average value used for the CT risk calculations; see discussion and rationale in Chapter 5.
(8) Oral CSF for 2,3,7,8-TCDD from HEAST (1997). Other PCDD/PCDFs were converted to 2,3,7,8-TCDD equivalently using the WHO TEFs (1998).

USEPA Group:
A – Human carcinogen
B1 – Probable human carcinogen; indicates that limited human data are available
B2 – Probable human carcinogen; indicates sufficient evidence in animals and inadequate or no evidence in humans
C – Possible human carcinogen
D – Not classifiable as a human carcinogen
E – Evidence of non-carcinogenicity

Weight of Evidence:
Known/Likely
Cannot be Determined
Not Likely
"No IRIS file" – IRIS has not published an assessment of this substance
"Not evaluated" – IRIS file exists, but the substance has not been assessed in the IRIS program

TABLE 7.1.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish fillet tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.92E-01	mg/kg	9.92E-01	mg/kg	M	1.1E-04	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	2.8E-01
	Arsenic (inorganic)	8.03E-02	mg/kg	8.03E-02	mg/kg	M	9.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.1E-02
	Chromium	5.65E-01	mg/kg	5.65E-01	mg/kg	M	6.5E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.2E-02
	Cyanide	5.69E+00	mg/kg	5.69E+00	mg/kg	M	6.5E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.3E-02
	Manganese	3.23E+00	mg/kg	3.23E+00	mg/kg	M	3.7E-04	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	2.6E-03
	Mercury (as methylmercury)	1.08E+00	mg/kg	1.08E+00	mg/kg	M	1.2E-04	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.2E+00
	Selenium	1.47E+00	mg/kg	1.47E+00	mg/kg	M	1.7E-04	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	3.4E-02
	Vanadium	6.27E-01	mg/kg	6.27E-01	mg/kg	M	7.2E-05	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	1.0E-02
	Zinc	4.37E+01	mg/kg	4.37E+01	mg/kg	M	5.0E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.7E-02
	SVOCs												
	bis(2-ethylhexyl)phthalate	2.30E+00	mg/kg	2.30E+00	mg/kg	M	2.6E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.3E-02
	Hexachlorobenzene	1.30E-02	mg/kg	1.30E-02	mg/kg	M	1.5E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.9E-03
	Pesticides												
	2,4'-DDE	4.13E-03	mg/kg	4.13E-03	mg/kg	M	4.7E-07	mg/kg-day	NA		NA	NA	NA
	4,4'-DDD	1.33E-02	mg/kg	1.33E-02	mg/kg	M	1.5E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	5.1E-04
	4,4'-DDE	3.44E-02	mg/kg	3.44E-02	mg/kg	M	3.9E-06	mg/kg-day	7.0E-04	mg/kg-day	NA	NA	5.6E-03
	4,4'-DDT	9.49E-03	mg/kg	9.49E-03	mg/kg	M	1.1E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	2.2E-03
	Aldrin	2.53E-03	mg/kg	2.53E-03	mg/kg	M	2.9E-07	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	9.6E-03
	delta-BHC	2.52E-03	mg/kg	2.52E-03	mg/kg	M	2.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.6E-04
	Dieldrin	3.82E-03	mg/kg	3.82E-03	mg/kg	M	4.4E-07	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	8.7E-03
	Heptachlor epoxide	4.14E-03	mg/kg	4.14E-03	mg/kg	M	4.7E-07	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	3.6E-02
	Sum of chlordanes	9.73E-03	mg/kg	9.73E-03	mg/kg	M	1.1E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	2.2E-03
	PCBs												
	Sum of Low MW PCBs	4.79E-01	mg/kg	4.79E-01	mg/kg	M	3.7E-05	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	5.2E-01
	Sum of High MW PCBs	5.77E-01	mg/kg	5.77E-01	mg/kg	M	4.4E-05	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.2E+00
	Sum of PCBs	9.13E-01	mg/kg	9.13E-01	mg/kg	M	7.0E-05	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-05	mg/kg	1.95E-05	mg/kg	M	1.5E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												4.5
Dermal	NA												
	Sum of Non-Cancer Hazards from Dermal Contact												NA

Total Non-Cancer Hazards 4.5

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.2.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish fillet tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Young Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.92E-01	mg/kg	9.92E-01	mg/kg	M	1.8E-04	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	4.4E-01
	Arsenic (inorganic)	8.03E-02	mg/kg	8.03E-02	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.8E-02
	Chromium	5.65E-01	mg/kg	5.65E-01	mg/kg	M	1.0E-04	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.4E-02
	Cyanide	5.69E+00	mg/kg	5.69E+00	mg/kg	M	1.0E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.1E-02
	Manganese	3.23E+00	mg/kg	3.23E+00	mg/kg	M	5.7E-04	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	4.1E-03
	Mercury (as methylmercury)	1.08E+00	mg/kg	1.08E+00	mg/kg	M	1.9E-04	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.9E+00
	Selenium	1.47E+00	mg/kg	1.47E+00	mg/kg	M	2.6E-04	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	5.2E-02
	Vanadium	6.27E-01	mg/kg	6.27E-01	mg/kg	M	1.1E-04	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	1.6E-02
	Zinc	4.37E+01	mg/kg	4.37E+01	mg/kg	M	7.8E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	2.6E-02
	SVOCs												
	bis(2-ethylhexyl)phthalate	2.30E+00	mg/kg	2.30E+00	mg/kg	M	4.1E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.0E-02
	Hexachlorobenzene	1.30E-02	mg/kg	1.30E-02	mg/kg	M	2.3E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.9E-03
	Pesticides												
	2,4'-DDE	4.13E-03	mg/kg	4.13E-03	mg/kg	M	7.3E-07	mg/kg-day	NA		NA	NA	NA
	4,4'-DDD	1.33E-02	mg/kg	1.33E-02	mg/kg	M	2.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	7.9E-04
	4,4'-DDE	3.44E-02	mg/kg	3.44E-02	mg/kg	M	6.1E-06	mg/kg-day	7.0E-04	mg/kg-day	NA	NA	8.7E-03
	4,4'-DDT	9.49E-03	mg/kg	9.49E-03	mg/kg	M	1.7E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	3.4E-03
	Aldrin	2.53E-03	mg/kg	2.53E-03	mg/kg	M	4.5E-07	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	1.5E-02
	delta-BHC	2.52E-03	mg/kg	2.52E-03	mg/kg	M	4.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.5E-03
	Dieldrin	3.82E-03	mg/kg	3.82E-03	mg/kg	M	6.8E-07	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	1.4E-02
	Heptachlor epoxide	4.14E-03	mg/kg	4.14E-03	mg/kg	M	7.4E-07	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	5.7E-02
	Sum of chlordanes	9.73E-03	mg/kg	9.73E-03	mg/kg	M	1.7E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	3.5E-03
	PCBs												
	Sum of Low MW PCBs	4.79E-01	mg/kg	4.79E-01	mg/kg	M	5.7E-05	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	8.1E-01
	Sum of High MW PCBs	5.77E-01	mg/kg	5.77E-01	mg/kg	M	6.9E-05	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.4E+00
	Sum of PCBs	9.13E-01	mg/kg	9.13E-01	mg/kg	M	1.1E-04	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-05	mg/kg	1.95E-05	mg/kg	M	2.3E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												7.0
Dermal	NA												
	Sum of Non-Cancer Hazards from Dermal Contact												NA

Total Non-Cancer Hazards 7.0

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.3.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish fillet tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.92E-01	mg/kg	9.92E-01	mg/kg	M	1.2E-04	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	3.1E-01
	Arsenic (inorganic)	8.03E-02	mg/kg	8.03E-02	mg/kg	M	1.0E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.3E-02
	Chromium	5.65E-01	mg/kg	5.65E-01	mg/kg	M	7.0E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.3E-02
	Cyanide	5.69E+00	mg/kg	5.69E+00	mg/kg	M	7.1E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.5E-02
	Manganese	3.23E+00	mg/kg	3.23E+00	mg/kg	M	4.0E-04	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	2.9E-03
	Mercury (as methylmercury)	1.08E+00	mg/kg	1.08E+00	mg/kg	M	1.3E-04	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.3E+00
	Selenium	1.47E+00	mg/kg	1.47E+00	mg/kg	M	1.8E-04	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	3.6E-02
	Vanadium	6.27E-01	mg/kg	6.27E-01	mg/kg	M	7.8E-05	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	1.1E-02
	Zinc	4.37E+01	mg/kg	4.37E+01	mg/kg	M	5.4E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.8E-02
	SVOCs												
	bis(2-ethylhexyl)phthalate	2.30E+00	mg/kg	2.30E+00	mg/kg	M	2.9E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-02
	Hexachlorobenzene	1.30E-02	mg/kg	1.30E-02	mg/kg	M	1.6E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.0E-03
	Pesticides												
	2,4'-DDE	4.13E-03	mg/kg	4.13E-03	mg/kg	M	5.1E-07	mg/kg-day	NA		NA	NA	NA
	4,4'-DDD	1.33E-02	mg/kg	1.33E-02	mg/kg	M	1.6E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	5.5E-04
	4,4'-DDE	3.44E-02	mg/kg	3.44E-02	mg/kg	M	4.3E-06	mg/kg-day	7.0E-04	mg/kg-day	NA	NA	6.1E-03
	4,4'-DDT	9.49E-03	mg/kg	9.49E-03	mg/kg	M	1.2E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	2.4E-03
	Aldrin	2.53E-03	mg/kg	2.53E-03	mg/kg	M	3.1E-07	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	1.0E-02
	delta-BHC	2.52E-03	mg/kg	2.52E-03	mg/kg	M	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.0E-03
	Dieldrin	3.82E-03	mg/kg	3.82E-03	mg/kg	M	4.7E-07	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	9.5E-03
	Heptachlor epoxide	4.14E-03	mg/kg	4.14E-03	mg/kg	M	5.1E-07	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	3.9E-02
	Sum of chlordanes	9.73E-03	mg/kg	9.73E-03	mg/kg	M	1.2E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	2.4E-03
	PCBs												
	Sum of Low MW PCBs	4.79E-01	mg/kg	4.79E-01	mg/kg	M	4.0E-05	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	5.7E-01
	Sum of High MW PCBs	5.77E-01	mg/kg	5.77E-01	mg/kg	M	4.8E-05	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.4E+00
	Sum of PCBs	9.13E-01	mg/kg	9.13E-01	mg/kg	M	7.6E-05	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-05	mg/kg	1.95E-05	mg/kg	M	1.6E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												4.9
Dermal	NA												
	Sum of Non-Cancer Hazards from Dermal Contact												NA

Total Non-Cancer Hazards 4.9

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.4.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	5.8E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.4E-03
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	2.4E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.0E-04
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	9.5E-06	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	1.4E-04
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	1.3E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.3E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.8E-04
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	3.6E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.2E-03
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	1.7E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	7.4E-04
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	1.2E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.2E-06
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.9E-04
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	1.8E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	2.8E-04
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	5.6E-09	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.9E-06
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	2.5E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.2E-05
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	1.0E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	9.7E-09	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	1.5E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	3.0E-09	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	2.4E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.2E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	2.6E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	2.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	5.4E-09	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	1.2E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												6.1E-03

TABLE 7.4.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compo**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.1E-04
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	2.2E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	8.7E-05
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	4.3E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	5.4E-05
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	2.3E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	2.2E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	3.3E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	6.7E-09	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	5.4E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.7E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	6.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.1E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	5.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.6E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	1.3E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	6.3E-14	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.1E-03

Total Non-Cancer Hazards 0.007

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.5.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	5.4E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.3E-02
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	7.5E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	8.8E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	1.3E-03
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	1.2E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.2E-03
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	1.9E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.3E-03
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	3.4E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.1E-02
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	1.6E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	6.9E-03
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	1.2E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.2E-05
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.7E-03
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	1.7E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	2.6E-03
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	5.2E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.7E-05
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	2.4E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.0E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	9.5E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	9.1E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	2.8E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	2.3E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-05
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	2.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.2E-03
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	2.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.0E-03
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	5.0E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	1.1E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												5.7E-02

TABLE 7.5.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compo**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	3.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	6.7E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	2.7E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	1.3E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.7E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	6.9E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	6.6E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	1.0E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	6.9E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	1.7E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.3E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	1.9E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.4E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	1.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.9E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	4.0E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	1.9E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.4E-03

Total Non-Cancer Hazards 0.06

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.6.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	9.4E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	2.3E-03
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	3.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	1.5E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	2.2E-04
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	2.1E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.1E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	3.3E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.1E-03
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	5.9E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	2.0E-03
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	2.8E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.2E-03
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	2.0E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.0E-06
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	1.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.4E-04
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	3.0E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	4.5E-04
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	9.1E-09	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.0E-06
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	4.1E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	5.2E-05
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	1.7E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	1.6E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	2.4E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	4.9E-09	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	4.0E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.0E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	4.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.1E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	3.5E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.8E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	8.8E-09	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	2.0E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												9.9E-03

TABLE 7.6.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.5E-04
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	4.5E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.8E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	8.9E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.1E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	4.7E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	4.5E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	6.8E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	1.4E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.6E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.4E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.3E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	2.7E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	1.3E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.3E-03

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.7.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	1.2E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	3.0E-03
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	5.0E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.7E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	1.9E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	2.8E-04
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	2.6E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.6E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	4.2E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.4E-03
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	7.5E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	2.5E-03
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	3.6E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.5E-03
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	2.6E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.6E-06
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	2.4E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.1E-04
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	3.8E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	5.7E-04
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	1.2E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.8E-06
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	5.2E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	6.6E-05
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	2.1E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	2.0E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	3.1E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	6.2E-09	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	5.0E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.5E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	5.3E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.7E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	4.5E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.2E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	1.1E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	2.5E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.3E-02

TABLE 7.7.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	5.2E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.7E-04
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	9.1E-10	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	3.6E-05
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	1.8E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.3E-05
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	9.5E-09	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	9.0E-09	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	1.4E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	2.8E-09	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	2.3E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	2.6E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	2.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	5.4E-09	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	2.6E-14	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												4.7E-04

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.8.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	4.0E-05	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	4.0E-05
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	3.0E-08	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	7.5E-05
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.0E-04
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	8.8E-06	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	1.3E-04
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	3.8E-08	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.8E-05
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	2.0E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.7E-04
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	9.4E-07	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	2.4E-05
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	1.5E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.4E-07
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	1.2E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	4.0E-04
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	2.3E-06	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	2.9E-06	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.2E-04
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	2.2E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.2E-06
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.2E-04
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	7.2E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.6E-05
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	3.9E-09	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	5.9E-05
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	2.9E-07	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	4.2E-05
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	6.0E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.0E-04
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.8E-05
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	8.3E-08	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	1.4E-06
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	3.2E-06	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	1.6E-06
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	1.8E-07	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	4.4E-05
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	6.5E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	8.1E-05
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	4.1E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-06
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	9.5E-08	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	7.2E-08	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	9.6E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.8.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	6.3E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.1E-06
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	3.5E-08	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	9.4E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	1.6E-08	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	4.5E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	5.0E-05
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	6.1E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.0E-05
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	3.3E-07	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	8.2E-06
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	3.7E-08	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	1.7E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.6E-05
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.1E-04
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	5.1E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.7E-05
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	8.5E-11	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	1.7E-06
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	8.0E-10	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.1E-05
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	3.4E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	4.8E-05
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	2.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E-04
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	1.4E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.8E-05
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	2.0E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.8E-05
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	1.0E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	3.7E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												4.1E-03
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	6.2E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.1E-04
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	6.5E-10	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	2.6E-05
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.8.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	3.0E-07	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	7.5E-05
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	1.1E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.4E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	9.2E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.1E-06
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	1.6E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	1.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.6E-06
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	7.7E-08	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	3.5E-08	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	7.8E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	8.6E-05
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	1.0E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.5E-05
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	7.3E-07	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.8E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	8.2E-08	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	3.8E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.9E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	2.3E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.8E-05
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	1.9E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.7E-05
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	8.1E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.2E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	5.3E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.6E-04
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	3.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.6E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	4.7E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.3E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	2.5E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.8.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	1.9E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.8E-03

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.9.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	3.7E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.7E-04
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	2.8E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	7.0E-04
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.8E-03
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	8.2E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	1.2E-03
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	3.6E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.6E-04
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	1.9E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.2E-03
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	8.8E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	2.2E-04
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.9E-06
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	1.1E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.7E-03
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	2.1E-05	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	2.7E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.2E-03
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	2.1E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.1E-05
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.7E-03
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	6.7E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.3E-04
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	3.7E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	5.6E-04
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	2.7E-06	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	3.9E-04
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	5.6E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.9E-03
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.2E-04
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	7.8E-07	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	1.3E-05
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	3.0E-05	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	1.5E-05
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	1.6E-06	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	4.1E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	6.1E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	7.6E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	3.9E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.3E-05
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	8.9E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	6.8E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	9.0E-07	mg/kg-day	NA		NA	NA	NA

TABLE 7.9.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	5.8E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.9E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	3.2E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	8.8E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	4.2E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	4.7E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	5.7E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.9E-04
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	3.1E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	7.7E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	3.4E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.1E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	9.6E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.8E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	4.8E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.6E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	7.9E-10	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	1.6E-05
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	7.4E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.1E-04
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	3.2E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	4.5E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	2.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.0E-03
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.3E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.2E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	9.7E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	3.4E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.8E-02
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.3E-04
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	8.0E-05
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.9.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	9.2E-07	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	2.3E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	3.4E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	4.3E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	2.8E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.4E-06
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	6.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	4.9E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	6.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	4.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	2.4E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	6.4E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	1.1E-07	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	2.4E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.6E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	3.2E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-04
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	2.2E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	5.6E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	1.2E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.9E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	7.0E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.5E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	3.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	5.8E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	8.3E-05
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	2.5E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.5E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	8.1E-04
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	9.9E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.0E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	1.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.2E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	7.6E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.9.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	5.8E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												8.5E-03

Total Non-Cancer Hazards 0.05

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.10.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	6.5E-05	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	6.5E-05
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	4.9E-08	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.2E-04
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	2.0E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.6E-04
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	1.4E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	2.1E-04
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	6.2E-08	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	6.2E-05
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	3.3E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.1E-03
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	1.5E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	3.8E-05
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	2.4E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.2E-06
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	1.9E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	6.5E-04
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	3.7E-06	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	4.7E-06	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.0E-04
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	3.6E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.6E-06
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.0E-03
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.8E-05
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	6.4E-09	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	9.7E-05
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	4.8E-07	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	6.8E-05
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	9.8E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.3E-04
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	2.9E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-04
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	1.4E-07	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	2.3E-06
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	5.3E-06	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	2.6E-06
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	2.9E-07	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	7.2E-05
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	1.1E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.3E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	6.8E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.3E-06
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	1.6E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	1.2E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	1.6E-07	mg/kg-day	NA		NA	NA	NA

TABLE 7.10.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	1.0E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.4E-06
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	5.7E-08	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	2.6E-08	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	7.4E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	8.2E-05
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	1.0E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.3E-05
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	5.4E-07	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.3E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	6.0E-08	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	1.7E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.4E-04
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	8.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.8E-05
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	1.4E-10	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	2.8E-06
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	1.3E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.9E-05
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	5.5E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	7.9E-05
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	3.6E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.8E-04
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	2.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	3.2E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.6E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	1.7E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	6.0E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												6.7E-03
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.3E-04
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	5.4E-05
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.10.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	6.2E-07	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	1.6E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	2.3E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.9E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	1.9E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.3E-06
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	4.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	3.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	4.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	2.9E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.5E-06
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	1.6E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	4.3E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	7.3E-08	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	1.6E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.8E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	2.2E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.2E-05
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	1.5E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	3.8E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	7.9E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.9E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	4.7E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.4E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	2.3E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.8E-05
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	3.9E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	5.6E-05
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	1.7E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.4E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.4E-04
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	6.7E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.3E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	9.7E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.8E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	5.1E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.10.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	3.9E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												5.7E-03

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.11.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	5.3E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	5.3E-04
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	3.9E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	9.8E-04
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.6E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.3E-03
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	1.2E-04	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	1.7E-03
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	5.0E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	5.0E-04
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	2.6E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	8.8E-03
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	1.2E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	3.1E-04
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	2.0E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	9.8E-06
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	1.6E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.3E-03
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	3.0E-05	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	3.8E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.6E-03
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	2.9E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.9E-05
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.1E-03
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	9.5E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.7E-04
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	5.2E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	7.9E-04
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	3.9E-06	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	5.5E-04
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	7.9E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.6E-03
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	2.3E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.2E-03
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	1.1E-06	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	1.8E-05
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	4.3E-05	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	2.1E-05
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	2.3E-06	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	5.8E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	8.6E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.1E-03
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	5.5E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.8E-05
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	9.6E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA

TABLE 7.11.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	8.3E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.8E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	4.6E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	6.0E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	6.7E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	8.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.7E-04
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	4.4E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.1E-04
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	4.9E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	2.3E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-03
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	1.4E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.8E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	6.8E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.3E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	1.1E-09	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	2.2E-05
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	1.1E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.5E-04
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	4.5E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	6.4E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	2.9E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.5E-03
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.0E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	2.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-03
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	4.9E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												5.4E-02
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.5E-04
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	1.7E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	7.0E-05
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.11.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	8.0E-07	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	2.0E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	3.0E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.7E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	2.5E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.2E-06
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	5.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	4.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	5.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	3.7E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	5.6E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	9.5E-08	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	2.1E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.3E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.3E-05
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	2.0E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	4.9E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	2.2E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	1.0E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.1E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	6.1E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.1E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	3.0E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.0E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	5.1E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	7.3E-05
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	2.2E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.1E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.0E-04
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	8.7E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.3E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.3E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	6.6E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.11.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	5.0E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												7.4E-03

Total Non-Cancer Hazards 0.06

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.12.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	6.7E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	6.7E-04
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	4.3E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.4E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	5.4E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	5.4E-04
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	5.9E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.0E-03
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	1.8E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.9E-06
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	1.8E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.9E-03
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	2.6E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.1E-03
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	1.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.3E-04
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	1.9E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.9E-05
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	1.0E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	1.6E-03
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	1.6E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	2.1E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.0E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.2E-06
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	1.6E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	1.9E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	9.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.1E-05
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	7.1E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	2.8E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	9.2E-07	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	2.7E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.3E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.8E-05
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	7.2E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.4E-02
Dermal	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	2.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	7.3E-04
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	3.7E-04
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA

TABLE 7.12.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	3.5E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	4.6E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.3E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	5.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.8E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	3.5E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	4.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.8E-05
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.6E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	6.2E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	2.0E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	6.0E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.0E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	4.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.5E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	3.7E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.4E-03

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.13.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW- 6 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	1.1E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.1E-03
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	6.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.3E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	8.8E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	8.8E-04
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	9.6E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.2E-03
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	2.9E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-05
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	2.9E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	9.6E-03
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	4.3E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.8E-03
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	3.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.0E-03
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	3.1E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.1E-05
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	1.7E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	2.5E-03
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	2.5E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	3.3E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.7E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	4.0E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.3E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	2.6E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	3.1E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	1.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.0E-05
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	4.5E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	4.4E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.2E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	3.3E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	1.2E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.3E-02
Dermal	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	4.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.5E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	1.9E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	7.6E-04
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA

TABLE 7.13.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	7.2E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	9.4E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.7E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.7E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	7.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	8.8E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	4.2E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-04
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	3.3E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	4.2E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.1E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	9.3E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.1E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	7.6E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.9E-03

Total Non-Cancer Hazards 0.03

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.14.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW- 6 (North Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	1.4E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.4E-03
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	8.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.9E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	1.1E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.1E-03
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	1.2E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	4.0E-03
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	3.7E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.8E-05
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	3.6E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.2E-02
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	5.4E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.3E-03
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	3.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-03
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	3.9E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.9E-05
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	2.1E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	3.2E-03
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	3.2E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	4.2E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.1E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	5.1E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.7E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	3.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	4.0E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	1.9E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.3E-05
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	5.7E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	1.9E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	5.5E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.8E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	4.2E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	1.5E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.9E-02
Dermal	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	9.1E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.0E-04
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	3.8E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.5E-04
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA

TABLE 7.14.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	9.5E-06
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.3E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.6E-06
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	1.8E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	8.5E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.8E-05
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	6.6E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	2.6E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	8.5E-07	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	2.5E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.2E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	1.9E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.3E-05
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	1.5E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												5.8E-04

Total Non-Cancer Hazards 0.03

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.15.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	5.9E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	5.9E-04
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	3.2E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	8.0E-04
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	7.3E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.4E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.6E-04
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	1.0E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.4E-03
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	2.4E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.0E-03
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.9E-04
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	1.8E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.8E-05
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	1.4E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	2.2E-03
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	6.4E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	6.7E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	5.6E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	1.6E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	4.1E-08	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.3E-04
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	1.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	7.4E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.2E-02
Dermal	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	3.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.15.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	1.2E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	3.5E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	9.1E-08	mg/kg-day	NA		NA	NA	NA
	PCBs												
Dermal	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	3.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.5E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	3.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	3.8E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.8E-03

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.16.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	9.5E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	9.5E-04
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	5.2E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.3E-03
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.0E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	3.2E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.1E-03
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	1.6E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.5E-03
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	4.0E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.7E-03
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	2.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.6E-04
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	2.9E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.9E-05
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	2.3E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	3.5E-03
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	1.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	1.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	9.1E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	2.6E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	6.7E-08	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	2.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.0E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	2.3E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	1.2E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.0E-02
Dermal	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	7.7E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.6E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA

TABLE 7.16.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	2.9E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	3.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	7.3E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	1.9E-07	mg/kg-day	NA		NA	NA	NA
	PCBs												
Dermal	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	6.2E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.1E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	7.0E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	7.8E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												5.7E-03

Total Non-Cancer Hazards 0.03

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.17.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	1.2E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.2E-03
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	6.6E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.7E-03
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.0E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	4.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.4E-03
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	2.1E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	6.9E-03
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	5.0E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.2E-03
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	3.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.2E-03
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	3.7E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.7E-05
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	2.9E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	4.4E-03
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	1.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	1.1E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	3.3E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	8.5E-08	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	2.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	2.9E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	1.5E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.5E-02
Dermal	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	1.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.2E-04
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.17.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	5.9E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	6.2E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	5.2E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	1.5E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	3.8E-08	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.3E-04
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	1.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	1.6E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.2E-03

Total Non-Cancer Hazards 0.03

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.18.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	8.6E-05	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	8.6E-05
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	6.2E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.1E-04
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	4.0E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	4.0E-04
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	3.0E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	9.9E-04
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	2.6E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	6.5E-05
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	8.3E-09	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.2E-07
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	1.7E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.6E-04
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	2.6E-06	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.1E-04
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	2.9E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.7E-05
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	2.9E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.9E-06
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	6.5E-09	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	9.9E-05
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	4.5E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	4.5E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	3.1E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	1.7E-09	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	3.0E-08	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	7.3E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.4E-06
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	2.7E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.9E-05
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	4.1E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.1E-04
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	2.1E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E-04
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	9.0E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.0E-03
Dermal	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	3.2E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.1E-04
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	6.8E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	2.7E-04
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA

TABLE 7.18.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	1.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	9.9E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	6.9E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	3.7E-09	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	6.6E-08	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	1.6E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.4E-06
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	6.5E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	9.3E-05
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	9.9E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.9E-04
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	5.1E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.6E-04
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	2.2E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.2E-03

Total Non-Cancer Hazards 0.004

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.19.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	1.4E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.4E-04
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.3E-04
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	6.5E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	6.5E-04
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	4.8E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.6E-03
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	4.3E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.1E-04
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	1.4E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.8E-07
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	2.7E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	9.1E-04
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	4.3E-06	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.8E-04
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	4.7E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.6E-04
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	4.8E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	4.8E-06
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	1.1E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	1.6E-04
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	7.4E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	7.2E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	5.0E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	2.7E-09	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	4.9E-08	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	1.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.0E-06
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	4.4E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	6.4E-05
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	6.7E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.4E-04
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	3.5E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.7E-04
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	1.5E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												4.8E-03
Dermal	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	6.5E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.2E-04
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	1.4E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	5.6E-04
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA

TABLE 7.19.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	2.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	7.6E-09	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	3.3E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-05
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	1.3E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.9E-04
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.0E-03
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.3E-04
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	4.4E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.5E-03

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.20.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	1.1E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.1E-03
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	8.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.7E-03
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	5.3E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	5.3E-03
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	3.9E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.3E-02
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	3.5E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	8.6E-04
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.5E-06
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	2.2E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	7.4E-03
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	3.5E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.5E-03
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	3.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-03
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	3.9E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.9E-05
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	8.6E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	1.3E-03
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	6.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	5.9E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	4.1E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	2.2E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	3.9E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	9.6E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.2E-05
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	3.6E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	5.2E-04
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	5.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.7E-03
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	2.8E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.4E-03
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	1.2E-07	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.9E-02
Dermal	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	8.4E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-04
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	1.8E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	7.3E-04
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA

TABLE 7.20.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	2.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	2.6E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	1.8E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	9.9E-09	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	1.8E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	4.3E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-05
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	1.7E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.5E-04
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	2.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-03
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	1.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.8E-04
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	5.7E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.3E-03

Total Non-Cancer Hazards 0.04

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.21.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	3.2E-08	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	8.1E-05
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	8.4E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-04
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	5.0E-06	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	7.2E-05
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	2.9E-08	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.9E-05
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	6.9E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.3E-04
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	1.0E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.4E-04
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	2.9E-06	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.3E-04
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.4E-03
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	4.2E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	4.2E-05
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	3.7E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	4.1E-05
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	8.7E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.9E-06
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	2.7E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.4E-05
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	1.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	8.9E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	5.5E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.8E-06
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	7.8E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	2.6E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	5.9E-08	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	1.6E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.4E-06
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	3.8E-10	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	1.3E-05
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	2.9E-10	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	5.7E-06
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	6.9E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	9.9E-05
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	6.0E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.0E-04
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	3.1E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.5E-04

TABLE 7.21.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	1.3E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	8.6E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.2E-03
Dermal	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	4.3E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.4E-04
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	4.9E-10	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	2.0E-05
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	6.3E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	7.0E-05
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	1.5E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.0E-06
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	4.7E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	5.8E-05
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	2.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	2.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	1.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.1E-06
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	5.8E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	1.3E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	3.6E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-05
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	NA		3.0E-05	mg/kg-day	NA	NA	NA
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	1.7E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.4E-04
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	1.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.2E-04
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	7.4E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.7E-04
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	3.1E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.21.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	4.4E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.6E-03

Total Non-Cancer Hazards 0.005

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.22.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	5.3E-08	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.3E-04
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.5E-04
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	8.2E-06	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	1.2E-04
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	4.7E-08	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	4.7E-05
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.7E-04
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	1.7E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.5E-04
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	4.8E-06	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.1E-04
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	6.7E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.2E-03
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	6.8E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	6.8E-05
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	6.0E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	6.7E-05
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	1.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.7E-06
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	4.4E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	5.5E-05
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.8E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	8.9E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.0E-06
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	1.3E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	4.2E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	9.6E-08	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	2.6E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.8E-06
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	6.1E-10	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	2.0E-05
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	4.7E-10	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	9.3E-06
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	1.1E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.6E-04
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	9.8E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.9E-04
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	5.0E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.5E-04
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	2.1E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.22.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	1.4E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												5.3E-03
Dermal	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	8.8E-08	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.9E-04
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	1.0E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	4.1E-05
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	1.3E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.4E-04
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	3.1E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.0E-05
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	9.6E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.2E-04
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	5.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	4.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	4.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	2.5E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.3E-06
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	3.6E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	1.2E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	2.7E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	7.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.5E-05
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	NA		3.0E-05	mg/kg-day	NA	NA	NA
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	3.4E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	4.9E-04
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	3.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.5E-03
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.6E-04
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	6.5E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	9.1E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.4E-03

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.23.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	4.3E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.1E-03
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.7E-03
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	6.6E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	9.4E-04
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	3.8E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.8E-04
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	9.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.0E-03
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	1.3E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	4.5E-03
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	3.9E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.7E-03
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	5.4E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.8E-02
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	5.5E-08	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	5.5E-04
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	4.9E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	5.4E-04
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.8E-05
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	3.6E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	4.5E-04
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	7.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.4E-05
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	1.0E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	3.4E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	7.7E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	2.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.1E-05
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	5.0E-09	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	1.7E-04
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	3.8E-09	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	7.6E-05
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	9.1E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.3E-03
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	8.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.0E-03
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	4.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.0E-03
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA

TABLE 7.23.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	1.1E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												4.3E-02
Dermal	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.8E-04
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	1.3E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	5.3E-05
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	1.7E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.9E-04
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	4.0E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.3E-05
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	1.2E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.6E-04
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	6.6E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	6.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	5.2E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	3.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-05
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	4.6E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	3.5E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	9.6E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.2E-05
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	NA		3.0E-05	mg/kg-day	NA	NA	NA
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	4.4E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	6.3E-04
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	3.9E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.9E-03
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.8E-04
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	8.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	1.2E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												4.4E-03

Total Non-Cancer Hazards 0.05

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.24.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
DREDGE SPOIL SOILS - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	7.6E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	7.6E-04
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	5.3E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.8E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	1.8E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.1E-04
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	1.1E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.6E-03
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	2.2E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	9.5E-04
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.3E-04
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	2.6E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.2E-05
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	8.1E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												8.5E-03
Dermal	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.0E-04
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	4.4E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	5.5E-05
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	1.8E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												9.5E-04

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.25.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
DREDGE SPOIL SOILS - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	1.2E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.2E-03
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	8.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.9E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	3.0E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.0E-03
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	1.7E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.8E-03
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	3.6E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.5E-03
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.4E-03
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	4.2E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	5.2E-05
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	1.3E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.4E-02
Dermal	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	5.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.8E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	9.0E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.1E-04
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	3.7E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.0E-03

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.26.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
DREDGE SPOIL SOILS - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	1.6E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.6E-03
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.6E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	3.8E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.3E-03
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	2.2E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	7.4E-03
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	4.6E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.0E-03
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	5.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.7E-03
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	5.3E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	6.6E-05
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	1.7E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.8E-02
Dermal	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	1.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.7E-04
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	1.8E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.3E-05
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	7.5E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												4.0E-04

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.27.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
DREDGE SPOIL SUBSURFACE SOILS - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Subsurface Soil
Exposure Point: Dredge Spoil Soils (0-11.7 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.02E+04	mg/kg	1.02E+04	mg/kg	M	1.3E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.3E-03
	Arsenic	8.73E+00	mg/kg	8.73E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.8E-03
	Cadmium	9.68E-01	mg/kg	9.68E-01	mg/kg	M	1.3E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.3E-04
	Chromium	2.60E+01	mg/kg	2.60E+01	mg/kg	M	3.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.1E-03
	Cyanide	8.37E-01	mg/kg	8.37E-01	mg/kg	M	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.4E-06
	Iron	1.51E+04	mg/kg	1.51E+04	mg/kg	M	2.0E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	6.5E-03
	Manganese	3.82E+02	mg/kg	3.82E+02	mg/kg	M	4.9E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.1E-03
	Total Mercury	4.79E+01	mg/kg	4.79E+01	mg/kg	M	6.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.1E-02
	Thallium	4.91E-01	mg/kg	4.91E-01	mg/kg	M	6.3E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	9.6E-04
	SVOCs												
	Hexachlorobenzene	2.25E-01	mg/kg	2.25E-01	mg/kg	M	2.9E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.6E-05
	PAHs												
	Benz(a)anthracene	2.50E+00	mg/kg	2.50E+00	mg/kg	M	3.2E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	2.63E+00	mg/kg	2.63E+00	mg/kg	M	3.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.28E+00	mg/kg	2.28E+00	mg/kg	M	2.9E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	1.7E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.6E-06
	Benzo(k)fluoranthene	2.29E+00	mg/kg	2.29E+00	mg/kg	M	3.0E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	6.09E-01	mg/kg	6.09E-01	mg/kg	M	7.9E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA
	Naphthalene	2.84E+00	mg/kg	2.84E+00	mg/kg	M	3.7E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.8E-05
	Phenanthrene	1.19E+00	mg/kg	1.19E+00	mg/kg	M	1.5E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.1E-06
	PCBs												
	Aroclor 1254	2.09E-01	mg/kg	2.09E-01	mg/kg	M	2.7E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-03
	Aroclor 1268	3.62E-01	mg/kg	3.62E-01	mg/kg	M	4.7E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.3E-03
	Sum of PCBs	6.31E-01	mg/kg	6.31E-01	mg/kg	M	8.2E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	4.38E-05	mg/kg	4.38E-05	mg/kg	M	5.7E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												4.0E-02

TABLE 7.27.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
DREDGE SPOIL SUBSURFACE SOILS - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Inorganics**												
	Aluminum	1.02E+04	mg/kg	1.02E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.73E+00	mg/kg	8.73E+00	mg/kg	M	1.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.9E-04
	Cadmium	9.68E-01	mg/kg	9.68E-01	mg/kg	M	4.3E-10	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.7E-05
	Chromium	2.60E+01	mg/kg	2.60E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Cyanide	8.37E-01	mg/kg	8.37E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.51E+04	mg/kg	1.51E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.82E+02	mg/kg	3.82E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.79E+01	mg/kg	4.79E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	4.91E-01	mg/kg	4.91E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.0E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.3E-05
	PAHs												
	Benz(a)anthracene	2.50E+00	mg/kg	2.50E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	2.63E+00	mg/kg	2.63E+00	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.28E+00	mg/kg	2.28E+00	mg/kg	M	1.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	7.5E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.5E-06
	Benzo(k)fluoranthene	2.29E+00	mg/kg	2.29E+00	mg/kg	M	1.3E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	6.09E-01	mg/kg	6.09E-01	mg/kg	M	3.5E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	7.5E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	2.84E+00	mg/kg	2.84E+00	mg/kg	M	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.2E-06
	Phenanthrene	1.19E+00	mg/kg	1.19E+00	mg/kg	M	6.9E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.3E-06
	PCBs												
	Aroclor 1254	2.09E-01	mg/kg	2.09E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.5E-04
	Aroclor 1268	3.62E-01	mg/kg	3.62E-01	mg/kg	M	2.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E-03
	Sum of PCBs	6.31E-01	mg/kg	6.31E-01	mg/kg	M	3.9E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	4.38E-05	mg/kg	4.38E-05	mg/kg	M	5.9E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.2E-03

Total Non-Cancer Hazards 0.04

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.28.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	6.9E-08	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	1.4E-04
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	1.5E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	4.9E-05
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	5.1E-06	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	3.7E-05
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	8.3E-11	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	8.3E-07
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	5.2E-10	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.7E-06
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	3.7E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.2E-05
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	1.5E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.5E-07
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	4.0E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.0E-06
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	4.1E-08	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	4.1E-06
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	3.7E-08	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	4.1E-07
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	3.4E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	3.8E-05
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	3.9E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.3E-06
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	3.6E-08	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	3.6E-06
	Sum of Non-Cancer Hazards from Ingestion												2.9E-04
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	2.5E-08	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	2.0E-03
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	1.1E-07	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	1.4E-03
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	1.8E-06	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	3.3E-04
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	3.0E-11	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.0E-07
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	1.9E-10	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	8.9E-06
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	4.2E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.4E-04
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	9.4E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.7E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.3E-05
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	2.8E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	2.8E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	1.9E-06	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	2.1E-05

TABLE 7.28.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	2.5E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.8E-03
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	2.0E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.8E-05
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	3.5E-06	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	3.5E-04
	Sum of Non-Cancer Hazards from Dermal Contact												7.2E-03

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.29.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	3.2E-07	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	6.5E-04
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	6.8E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.3E-04
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	2.4E-05	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	1.7E-04
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	3.9E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.9E-06
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	2.4E-09	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.1E-06
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	1.7E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	5.8E-05
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	7.0E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.5E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	9.3E-06
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	1.9E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	1.9E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	1.7E-07	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	1.9E-06
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	1.6E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.8E-04
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	1.8E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.0E-06
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	1.7E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	1.7E-05
	Sum of Non-Cancer Hazards from Ingestion												1.3E-03
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	4.3E-08	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	3.4E-03
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	1.8E-07	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	2.4E-03
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	3.1E-06	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	5.6E-04
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	5.1E-11	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	5.1E-07
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	3.2E-10	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	1.5E-05
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	7.3E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.4E-04
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	1.6E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.1E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.8E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	9.1E-05
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	4.7E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	4.7E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	3.2E-06	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	3.6E-05

TABLE 7.29.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	4.3E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	4.8E-03
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	3.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-04
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	5.9E-06	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	5.9E-04
	Sum of Non-Cancer Hazards from Dermal Contact												1.2E-02

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.30.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	1.1E-07	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	2.3E-04
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	2.4E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	8.0E-05
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	8.3E-06	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	5.9E-05
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	1.4E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.4E-06
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	8.4E-10	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-06
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	6.0E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.0E-05
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	2.4E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.2E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	6.5E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.2E-06
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	6.7E-08	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	6.7E-06
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	6.0E-08	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	6.6E-07
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	5.5E-08	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	6.1E-05
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	6.3E-08	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.1E-06
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	5.9E-08	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	5.9E-06
	Sum of Non-Cancer Hazards from Ingestion												4.7E-04
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	2.9E-08	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	2.3E-03
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	1.2E-07	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	1.7E-03
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	2.2E-06	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	3.9E-04
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	3.5E-11	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.5E-07
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	2.2E-10	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	1.0E-05
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	5.0E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.7E-04
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.6E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.2E-05
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	3.3E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	3.3E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	2.2E-06	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	2.5E-05

TABLE 7.30.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	3.0E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	3.3E-03
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	2.4E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.0E-05
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	4.1E-06	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	4.1E-04
	Sum of Non-Cancer Hazards from Dermal Contact												8.5E-03

Total Non-Cancer Hazards 0.01

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.31.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	2.6E-09	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	5.2E-06
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	5.5E-09	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.8E-06
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	1.9E-07	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	1.4E-06
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	3.1E-12	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.1E-08
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	1.9E-11	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.5E-08
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	1.4E-09	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	4.6E-07
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	5.6E-10	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.8E-08
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.5E-09	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.5E-08
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	1.5E-09	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	1.5E-07
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	1.4E-09	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	1.5E-08
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	1.3E-09	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.4E-06
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	1.4E-09	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.8E-08
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	1.4E-09	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	1.4E-07
	Sum of Non-Cancer Hazards from Ingestion												1.1E-05
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	1.2E-09	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	9.9E-05
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	5.2E-09	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	7.0E-05
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	9.1E-08	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	1.6E-05
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	1.5E-12	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.5E-08
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	9.2E-12	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	4.4E-07
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	5.4E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.8E-05
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	1.1E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.6E-07
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.3E-06
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	3.4E-08	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	3.4E-06
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	2.2E-07	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	2.4E-06

TABLE 7.31.CT
CALCULATION OF NON-CANCER HAZARDS
CENTRAL TENDENCY
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	2.9E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	3.2E-04
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	2.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.9E-06
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	4.4E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	4.4E-05
	Sum of Non-Cancer Hazards from Dermal Contact												5.9E-04

Total Non-Cancer Hazards 0.001

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.1.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish fillet tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.92E-01	mg/kg	9.92E-01	mg/kg	M	3.5E-04	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	8.9E-01
	Arsenic (inorganic)	8.03E-02	mg/kg	8.03E-02	mg/kg	M	2.9E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.6E-02
	Chromium	5.65E-01	mg/kg	5.65E-01	mg/kg	M	2.0E-04	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.7E-02
	Cyanide	5.69E+00	mg/kg	5.69E+00	mg/kg	M	2.0E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.0E-01
	Manganese	3.23E+00	mg/kg	3.23E+00	mg/kg	M	1.2E-03	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	8.2E-03
	Mercury (as methylmercury)	1.08E+00	mg/kg	1.08E+00	mg/kg	M	3.9E-04	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.9E+00
	Selenium	1.47E+00	mg/kg	1.47E+00	mg/kg	M	5.2E-04	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	1.0E-01
	Vanadium	6.27E-01	mg/kg	6.27E-01	mg/kg	M	2.2E-04	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	3.2E-02
	Zinc	4.37E+01	mg/kg	4.37E+01	mg/kg	M	1.6E-02	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.2E-02
	SVOCs												
	bis(2-ethylhexyl)phthalate	2.30E+00	mg/kg	2.30E+00	mg/kg	M	8.2E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.1E-02
	Hexachlorobenzene	1.30E-02	mg/kg	1.30E-02	mg/kg	M	4.6E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	5.8E-03
	Pesticides												
	2,4'-DDE	4.13E-03	mg/kg	4.13E-03	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	4,4'-DDD	1.33E-02	mg/kg	1.33E-02	mg/kg	M	4.7E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.6E-03
	4,4'-DDE	3.44E-02	mg/kg	3.44E-02	mg/kg	M	1.2E-05	mg/kg-day	7.0E-04	mg/kg-day	NA	NA	1.8E-02
	4,4'-DDT	9.49E-03	mg/kg	9.49E-03	mg/kg	M	3.4E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	6.8E-03
	Aldrin	2.53E-03	mg/kg	2.53E-03	mg/kg	M	9.0E-07	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	3.0E-02
	delta-BHC	2.52E-03	mg/kg	2.52E-03	mg/kg	M	9.0E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.0E-03
	Dieldrin	3.82E-03	mg/kg	3.82E-03	mg/kg	M	1.4E-06	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	2.7E-02
	Heptachlor epoxide	4.14E-03	mg/kg	4.14E-03	mg/kg	M	1.5E-06	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	1.1E-01
	Sum of chlordanes	9.73E-03	mg/kg	9.73E-03	mg/kg	M	3.5E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	6.9E-03
	PCBs												
	Sum of Low MW PCBs	4.79E-01	mg/kg	4.79E-01	mg/kg	M	1.7E-04	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.4E+00
	Sum of High MW PCBs	5.77E-01	mg/kg	5.77E-01	mg/kg	M	2.1E-04	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.0E+01
	Sum of PCBs	9.13E-01	mg/kg	9.13E-01	mg/kg	M	3.3E-04	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-05	mg/kg	1.95E-05	mg/kg	M	7.0E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												18.2
Dermal	NA												
	Sum of Non-Cancer Hazards from Dermal Contact												NA

Total Non-Cancer Hazards 18.2

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.2.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish fillet tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Young Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.92E-01	mg/kg	9.92E-01	mg/kg	M	5.5E-04	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	1.4E+00
	Arsenic (inorganic)	8.03E-02	mg/kg	8.03E-02	mg/kg	M	4.5E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.5E-01
	Chromium	5.65E-01	mg/kg	5.65E-01	mg/kg	M	3.1E-04	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.0E-01
	Cyanide	5.69E+00	mg/kg	5.69E+00	mg/kg	M	3.2E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.6E-01
	Manganese	3.23E+00	mg/kg	3.23E+00	mg/kg	M	1.8E-03	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	1.3E-02
	Mercury (as methylmercury)	1.08E+00	mg/kg	1.08E+00	mg/kg	M	6.0E-04	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	6.0E+00
	Selenium	1.47E+00	mg/kg	1.47E+00	mg/kg	M	8.2E-04	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	1.6E-01
	Vanadium	6.27E-01	mg/kg	6.27E-01	mg/kg	M	3.5E-04	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	5.0E-02
	Zinc	4.37E+01	mg/kg	4.37E+01	mg/kg	M	2.4E-02	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	8.1E-02
	SVOCs												
	bis(2-ethylhexyl)phthalate	2.30E+00	mg/kg	2.30E+00	mg/kg	M	1.3E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.4E-02
	Hexachlorobenzene	1.30E-02	mg/kg	1.30E-02	mg/kg	M	7.2E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	9.0E-03
	Pesticides												
	2,4'-DDE	4.13E-03	mg/kg	4.13E-03	mg/kg	M	2.3E-06	mg/kg-day	NA		NA	NA	NA
	4,4'-DDD	1.33E-02	mg/kg	1.33E-02	mg/kg	M	7.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.5E-03
	4,4'-DDE	3.44E-02	mg/kg	3.44E-02	mg/kg	M	1.9E-05	mg/kg-day	7.0E-04	mg/kg-day	NA	NA	2.7E-02
	4,4'-DDT	9.49E-03	mg/kg	9.49E-03	mg/kg	M	5.3E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	1.1E-02
	Aldrin	2.53E-03	mg/kg	2.53E-03	mg/kg	M	1.4E-06	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	4.7E-02
	delta-BHC	2.52E-03	mg/kg	2.52E-03	mg/kg	M	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.7E-03
	Dieldrin	3.82E-03	mg/kg	3.82E-03	mg/kg	M	2.1E-06	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	4.2E-02
	Heptachlor epoxide	4.14E-03	mg/kg	4.14E-03	mg/kg	M	2.3E-06	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	1.8E-01
	Sum of chlordanes	9.73E-03	mg/kg	9.73E-03	mg/kg	M	5.4E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	1.1E-02
	PCBs												
	Sum of Low MW PCBs	4.79E-01	mg/kg	4.79E-01	mg/kg	M	2.7E-04	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.8E+00
	Sum of High MW PCBs	5.77E-01	mg/kg	5.77E-01	mg/kg	M	3.2E-04	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.6E+01
	Sum of PCBs	9.13E-01	mg/kg	9.13E-01	mg/kg	M	5.1E-04	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-05	mg/kg	1.95E-05	mg/kg	M	1.1E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												28.3
	Sum of Non-Cancer Hazards from Dermal Contact												NA

Total Non-Cancer Hazards 28.3

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.3.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish fillet tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.92E-01	mg/kg	9.92E-01	mg/kg	M	3.8E-04	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	9.6E-01
	Arsenic (inorganic)	8.03E-02	mg/kg	8.03E-02	mg/kg	M	3.1E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.0E-01
	Chromium	5.65E-01	mg/kg	5.65E-01	mg/kg	M	2.2E-04	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	7.3E-02
	Cyanide	5.69E+00	mg/kg	5.69E+00	mg/kg	M	2.2E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-01
	Manganese	3.23E+00	mg/kg	3.23E+00	mg/kg	M	1.3E-03	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	8.9E-03
	Mercury (as methylmercury)	1.08E+00	mg/kg	1.08E+00	mg/kg	M	4.2E-04	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	4.2E+00
	Selenium	1.47E+00	mg/kg	1.47E+00	mg/kg	M	5.7E-04	mg/kg-day	5.0E-03	mg/kg-day	NA	NA	1.1E-01
	Vanadium	6.27E-01	mg/kg	6.27E-01	mg/kg	M	2.4E-04	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	3.5E-02
	Zinc	4.37E+01	mg/kg	4.37E+01	mg/kg	M	1.7E-02	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.6E-02
	SVOCs												
	bis(2-ethylhexyl)phthalate	2.30E+00	mg/kg	2.30E+00	mg/kg	M	8.9E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.5E-02
	Hexachlorobenzene	1.30E-02	mg/kg	1.30E-02	mg/kg	M	5.0E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	6.3E-03
	Pesticides												
	2,4'-DDE	4.13E-03	mg/kg	4.13E-03	mg/kg	M	1.6E-06	mg/kg-day	NA		NA	NA	NA
	4,4'-DDD	1.33E-02	mg/kg	1.33E-02	mg/kg	M	5.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.7E-03
	4,4'-DDE	3.44E-02	mg/kg	3.44E-02	mg/kg	M	1.3E-05	mg/kg-day	7.0E-04	mg/kg-day	NA	NA	1.9E-02
	4,4'-DDT	9.49E-03	mg/kg	9.49E-03	mg/kg	M	3.7E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	7.4E-03
	Aldrin	2.53E-03	mg/kg	2.53E-03	mg/kg	M	9.8E-07	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	3.3E-02
	delta-BHC	2.52E-03	mg/kg	2.52E-03	mg/kg	M	9.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.3E-03
	Dieldrin	3.82E-03	mg/kg	3.82E-03	mg/kg	M	1.5E-06	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	3.0E-02
	Heptachlor epoxide	4.14E-03	mg/kg	4.14E-03	mg/kg	M	1.6E-06	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	1.2E-01
	Sum of chlordanes	9.73E-03	mg/kg	9.73E-03	mg/kg	M	3.8E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	7.5E-03
	PCBs												
	Sum of Low MW PCBs	4.79E-01	mg/kg	4.79E-01	mg/kg	M	1.9E-04	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.6E+00
	Sum of High MW PCBs	5.77E-01	mg/kg	5.77E-01	mg/kg	M	2.2E-04	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E+01
	Sum of PCBs	9.13E-01	mg/kg	9.13E-01	mg/kg	M	3.5E-04	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-05	mg/kg	1.95E-05	mg/kg	M	7.6E-09	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												19.8
Dermal	NA												
	Sum of Non-Cancer Hazards from Dermal Contact												NA

Total Non-Cancer Hazards 19.8

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.4.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	1.6E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	4.0E-03
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	6.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.2E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	2.6E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	3.7E-04
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	3.5E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.5E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	5.6E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.9E-03
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	1.0E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.3E-03
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	4.8E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.0E-03
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	3.4E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.4E-06
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	3.3E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.1E-03
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	5.0E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	7.6E-04
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	1.5E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	5.1E-06
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	7.0E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	8.7E-05
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	2.8E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	2.7E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	4.1E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	8.3E-09	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	6.7E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.4E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	7.1E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.5E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	6.0E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.0E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	1.5E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	3.4E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.7E-02

TABLE 7.4.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.1E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	6.0E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	2.4E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	1.2E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.5E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	6.2E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	6.0E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	9.1E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	1.8E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.4E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	1.7E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	8.5E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	1.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.1E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	3.6E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	1.7E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.1E-03

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.5.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	1.5E-05	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	3.7E-02
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	6.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.1E-02
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	2.4E-04	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	3.5E-03
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	3.3E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.3E-03
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	5.2E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.7E-02
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	9.3E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.1E-02
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	4.5E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.9E-02
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	3.2E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.2E-05
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	3.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.0E-02
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	4.7E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	7.1E-03
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	1.4E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	4.8E-05
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	6.5E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	8.2E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	2.6E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	3.8E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	7.8E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	6.3E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.1E-05
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	6.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.3E-03
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	5.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.8E-03
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	3.1E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.6E-01

TABLE 7.5.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	7.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.3E-02
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	1.2E-07	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	4.9E-03
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	2.5E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.1E-03
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	1.9E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	3.8E-07	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	3.1E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.5E-04
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	3.5E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.8E-02
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	2.9E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.5E-02
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	7.3E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	3.6E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												6.4E-02

Total Non-Cancer Hazards 0.22

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.6.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	2.6E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	6.4E-03
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.6E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	4.2E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	6.0E-04
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	5.7E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	5.7E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	9.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.0E-03
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	1.6E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.4E-03
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	7.8E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	3.3E-03
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	5.6E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	5.6E-06
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	5.3E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.8E-03
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	8.2E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	1.2E-03
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	2.5E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	8.4E-06
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	1.1E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.4E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	4.6E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	4.4E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	6.7E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	1.4E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	1.1E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.5E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.8E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	9.7E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.9E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	2.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	5.5E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.7E-02

TABLE 7.6.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	4.7E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.6E-02
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	8.3E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	3.3E-03
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	1.7E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.1E-03
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	8.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	8.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	2.6E-07	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.0E-04
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	2.4E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.2E-02
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	2.0E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.9E-03
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	4.9E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	2.4E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												4.3E-02

Total Non-Cancer Hazards 0.07

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.7.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	3.0E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	7.4E-03
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.1E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	4.9E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	7.0E-04
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	6.6E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	6.6E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	1.0E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.5E-03
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	1.9E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	6.2E-03
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	9.0E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	3.8E-03
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	6.4E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	6.4E-06
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	6.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.0E-03
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	9.5E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	1.4E-03
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	2.9E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	9.6E-06
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	1.3E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.6E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	5.3E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	5.0E-08	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	7.7E-08	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	1.6E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.3E-06
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.7E-04
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.6E-04
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	2.8E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	6.3E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.1E-02

TABLE 7.7.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
NORTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Metals and Organometallic Compounds**												
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	5.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.9E-03
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.03E+00	mg/kg	2.03E+00	mg/kg	M	1.0E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	4.1E-04
	Chromium	3.24E+01	mg/kg	3.24E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	5.79E+03	mg/kg	5.79E+03	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.77E+02	mg/kg	2.77E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	1.99E-03	mg/kg	1.99E-03	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+00	mg/kg	1.89E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	2.93E-01	mg/kg	2.93E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	8.94E-02	mg/kg	8.94E-02	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.06E-01	mg/kg	4.06E-01	mg/kg	M	2.0E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.5E-04
	PAHs												
	Benz(a)anthracene	1.63E-01	mg/kg	1.63E-01	mg/kg	M	1.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.56E-01	mg/kg	1.56E-01	mg/kg	M	1.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.37E-01	mg/kg	2.37E-01	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.83E-02	mg/kg	4.83E-02	mg/kg	M	3.2E-08	mg/kg-day	NA		NA	NA	NA
	Naphthalene	3.89E-01	mg/kg	3.89E-01	mg/kg	M	2.5E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.3E-05
	PCBs												
	Aroclor 1254	4.12E-02	mg/kg	4.12E-02	mg/kg	M	2.9E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.4E-03
	Aroclor 1268	3.47E-02	mg/kg	3.47E-02	mg/kg	M	2.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.2E-03
	Sum of PCBs	8.62E-02	mg/kg	8.62E-02	mg/kg	M	6.1E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.95E-06	mg/kg	1.95E-06	mg/kg	M	2.9E-13	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												5.3E-03

Total Non-Cancer Hazards 0.04

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.8.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	2.2E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.2E-04
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	1.7E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	4.2E-04
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	6.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.3E-03
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	4.9E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	7.1E-04
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.1E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.1E-04
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	1.1E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.7E-03
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	5.3E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.3E-04
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	8.3E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.1E-06
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	6.7E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	2.2E-03
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	1.3E-05	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	1.6E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	6.9E-04
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	1.2E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.2E-05
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.4E-03
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	4.0E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.0E-04
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	2.2E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	3.3E-04
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	1.6E-06	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	2.3E-04
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	3.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.1E-03
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	9.9E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.9E-04
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	4.7E-07	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	7.8E-06
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	1.8E-05	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	9.0E-06
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	9.9E-07	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	2.5E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	3.6E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	4.6E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	2.3E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.7E-06
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	5.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	4.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	5.4E-07	mg/kg-day	NA		NA	NA	NA

TABLE 7.8.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	3.5E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	1.9E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	5.3E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	8.9E-08	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	2.5E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.8E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	3.4E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-04
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	1.8E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	4.6E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	9.7E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.8E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	5.8E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.9E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	2.9E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.6E-05
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	4.8E-10	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	9.5E-06
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	4.5E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	6.4E-05
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	1.9E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.7E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.2E-04
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	7.6E-09	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.8E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	1.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.5E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	5.8E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	2.1E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.3E-02
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	3.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.2E-03
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	3.7E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.5E-04
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.8.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	1.7E-06	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	4.2E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	6.2E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	7.8E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	5.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.7E-05
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	9.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	7.8E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.6E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	4.3E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	2.0E-07	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	4.4E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	4.8E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	5.9E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.0E-04
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	4.1E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.0E-04
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	4.6E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	2.1E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-03
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	1.3E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.4E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	6.4E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.1E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	1.1E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.5E-04
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	4.5E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	6.5E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	3.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.5E-03
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.1E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	2.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-03
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	1.4E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	1.1E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.6E-02

Total Non-Cancer Hazards 0.04

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.9.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	2.1E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.1E-03
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	1.6E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	3.9E-03
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	6.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.1E-02
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	4.6E-04	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	6.6E-03
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.0E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.0E-03
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	1.0E-04	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.5E-02
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	4.9E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.2E-03
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	7.7E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.9E-05
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	6.3E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	2.1E-02
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	1.2E-04	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	1.5E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	6.5E-03
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	1.1E-08	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.1E-04
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	9.7E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.2E-02
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	3.7E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.9E-03
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	2.1E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	3.1E-03
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	1.5E-05	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	2.2E-03
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	3.1E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.0E-02
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	9.2E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.6E-03
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	4.3E-06	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	7.2E-05
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	1.7E-04	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	8.4E-05
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	9.2E-06	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	2.3E-03
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	3.4E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	4.3E-03
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	2.2E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.2E-05
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	5.0E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	3.8E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	5.0E-06	mg/kg-day	NA		NA	NA	NA

TABLE 7.9.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	3.3E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-04
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	1.8E-06	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	4.9E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	8.3E-07	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	2.4E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.6E-03
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	3.2E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-03
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	1.7E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	4.3E-04
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	1.9E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	9.0E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.5E-03
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	5.4E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.7E-02
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	2.7E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.0E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	4.4E-09	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	8.9E-05
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	4.2E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	5.9E-04
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	1.8E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.5E-03
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.2E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.8E-03
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	7.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.5E-03
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	1.0E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.1E-03
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	5.4E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	1.9E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.1E-01
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	7.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.4E-02
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	7.6E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	3.0E-03
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.9.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	3.5E-05	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	8.7E-03
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	1.3E-05	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.6E-02
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	1.1E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.6E-04
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	2.5E-05	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	1.9E-05	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	2.5E-05	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	1.6E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.4E-04
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	8.9E-06	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	2.4E-05	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	4.1E-06	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	9.0E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.0E-02
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	1.2E-04	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.0E-03
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	8.5E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	2.1E-03
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	9.5E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	4.4E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.2E-02
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	2.6E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.3E-01
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	1.3E-04	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.4E-03
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	2.2E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.1E-03
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	9.4E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.3E-02
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	6.1E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.0E-02
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	3.8E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.9E-02
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	5.4E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.7E-02
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	2.9E-06	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	2.2E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.2E-01

Total Non-Cancer Hazards 0.54

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.10.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	3.6E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.6E-04
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	2.7E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	6.8E-04
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.7E-03
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	8.0E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	1.1E-03
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	3.5E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.5E-04
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	1.8E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.1E-03
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	8.6E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	2.1E-04
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.8E-06
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	1.1E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.6E-03
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	2.1E-05	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	2.6E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.1E-03
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	2.0E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.0E-05
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.6E-03
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	6.5E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.3E-04
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	3.6E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	5.4E-04
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	2.7E-06	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	3.8E-04
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	5.5E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.8E-03
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.0E-04
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	7.6E-07	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	1.3E-05
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	2.9E-05	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	1.5E-05
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	1.6E-06	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	4.0E-04
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	5.9E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	7.4E-04
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	3.8E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.3E-05
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	8.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	6.6E-07	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	8.8E-07	mg/kg-day	NA		NA	NA	NA

TABLE 7.10.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	5.7E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.9E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	3.2E-07	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	8.6E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	4.1E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	4.6E-04
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	5.6E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.9E-04
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	3.0E-06	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	7.5E-05
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	3.4E-07	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.9E-04
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	9.4E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.7E-03
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	4.7E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.6E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	7.8E-10	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	1.6E-05
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	7.3E-09	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.0E-04
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	3.1E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	4.4E-04
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.0E-03
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.2E-04
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	8.9E-04
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	9.5E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	3.4E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.7E-02
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	4.8E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.6E-02
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	5.1E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	2.0E-03
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.10.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	2.3E-05	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	5.9E-03
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	8.7E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.1E-02
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	7.2E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.4E-04
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	1.7E-05	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	1.3E-05	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	1.7E-05	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	1.1E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.6E-04
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	6.0E-06	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	1.6E-05	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	2.8E-06	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	6.0E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	6.7E-03
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	8.2E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.7E-03
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	5.7E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	1.4E-03
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	6.4E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	3.0E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.5E-02
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	1.8E-03	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.9E-02
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	8.9E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.0E-03
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	1.5E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.1E-03
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	6.3E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	9.0E-03
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	4.1E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.1E-02
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	2.5E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-02
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	3.7E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.8E-02
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	1.9E-06	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	1.5E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.2E-01

Total Non-Cancer Hazards 0.25

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.11.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	1.3E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.3E-03
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	9.8E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	2.5E-03
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	4.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-02
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	2.9E-04	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	4.2E-03
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	1.3E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.3E-03
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	6.6E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.2E-02
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	3.1E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	7.8E-04
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	4.9E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.4E-05
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	3.9E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.3E-02
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	7.6E-05	mg/kg-day	No data		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	9.5E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	4.1E-03
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	7.3E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	7.3E-05
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.0E-02
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	2.4E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.2E-03
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	1.3E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	2.0E-03
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	9.6E-06	mg/kg-day	7.0E-03	mg/kg-day	NA	NA	1.4E-03
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	2.0E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	6.6E-03
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	5.8E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.9E-03
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	2.7E-06	mg/kg-day	6.0E-02	mg/kg-day	NA	NA	4.6E-05
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	1.1E-04	mg/kg-day	2.0E+00	mg/kg-day	NA	NA	5.3E-05
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	5.8E-06	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	1.5E-03
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	2.2E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.7E-03
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	1.4E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.6E-05
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	3.2E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	2.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	3.2E-06	mg/kg-day	NA		NA	NA	NA

TABLE 7.11.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	2.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.9E-05
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	1.1E-06	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	3.1E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	5.3E-07	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	1.5E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.7E-03
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	2.0E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.8E-04
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	1.1E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	2.7E-04
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	5.7E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.8E-03
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	3.4E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.7E-02
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	1.7E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.7E-04
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	2.8E-09	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	5.6E-05
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	2.6E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.8E-04
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	1.1E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.6E-03
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	7.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.6E-03
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	4.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.2E-03
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.2E-03
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	3.4E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	1.2E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.4E-01
Dermal	**Metals and Organometallic Compounds**												
	Aluminum	4.08E+03	mg/kg	4.08E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	3.05E+00	mg/kg	3.05E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.24E+01	mg/kg	1.24E+01	mg/kg	M	1.9E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.2E-03
	Barium	9.02E+02	mg/kg	9.02E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.0E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	7.8E-04
	Chromium	2.05E+02	mg/kg	2.05E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	9.61E+01	mg/kg	9.61E+01	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	1.51E+00	mg/kg	1.51E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.22E+04	mg/kg	1.22E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Lead	2.35E+02	mg/kg	2.35E+02	mg/kg	M	NA		NA		NA	NA	NA
	Manganese	2.95E+02	mg/kg	2.95E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Methylmercury	2.25E-02	mg/kg	2.25E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Total Mercury	1.89E+01	mg/kg	1.89E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA

TABLE 7.11.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SOUTH BASIN - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Nickel	7.32E+01	mg/kg	7.32E+01	mg/kg	M	NA		8.0E-04	mg/kg-day	NA	NA	NA
	Thallium	4.01E-01	mg/kg	4.01E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	Vanadium	2.99E+01	mg/kg	2.99E+01	mg/kg	M	NA		1.8E-04	mg/kg-day	NA	NA	NA
	VOCs												
	Benzene	6.12E+01	mg/kg	6.12E+01	mg/kg	M	NA		3.0E-03	mg/kg-day	NA	NA	NA
	Chlorobenzene	1.80E+02	mg/kg	1.80E+02	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Methylene chloride	8.50E+00	mg/kg	8.50E+00	mg/kg	M	NA		6.0E-02	mg/kg-day	NA	NA	NA
	Xylenes	3.30E+02	mg/kg	3.30E+02	mg/kg	M	NA		2.0E+00	mg/kg-day	NA	NA	NA
	SVOCs												
	Dibenzofuran	1.80E+01	mg/kg	1.80E+01	mg/kg	M	9.0E-06	mg/kg-day	4.0E-03	mg/kg-day	NA	NA	2.3E-03
	Hexachlorobenzene	6.66E+00	mg/kg	6.66E+00	mg/kg	M	3.3E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	4.2E-03
	PAHs												
	Acenaphthylene	4.24E+00	mg/kg	4.24E+00	mg/kg	M	2.8E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.2E-05
	Benz[a]anthracene	9.76E+00	mg/kg	9.76E+00	mg/kg	M	6.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[a]pyrene	7.40E+00	mg/kg	7.40E+00	mg/kg	M	4.8E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[b]fluoranthene	9.82E+00	mg/kg	9.82E+00	mg/kg	M	6.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo[ghi]perylene	6.39E+00	mg/kg	6.39E+00	mg/kg	M	4.2E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-04
	Benzo[k]fluoranthene	3.55E+00	mg/kg	3.55E+00	mg/kg	M	2.3E-06	mg/kg-day	NA		NA	NA	NA
	Chrysene	9.62E+00	mg/kg	9.62E+00	mg/kg	M	6.3E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz[a,h]anthracene	1.63E+00	mg/kg	1.63E+00	mg/kg	M	1.1E-06	mg/kg-day	NA		NA	NA	NA
	1,3-Dichlorobenzene	4.64E+00	mg/kg	4.64E+00	mg/kg	M	2.3E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.6E-03
	1,4-Dichlorobenzene	6.28E+01	mg/kg	6.28E+01	mg/kg	M	3.1E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.0E-03
	Fluoranthene	3.37E+01	mg/kg	3.37E+01	mg/kg	M	2.2E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	5.5E-04
	Indeno[1,2,3-cd]pyrene	3.77E+00	mg/kg	3.77E+00	mg/kg	M	2.5E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	1.76E+02	mg/kg	1.76E+02	mg/kg	M	1.2E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.8E-03
	Naphthalene	1.05E+03	mg/kg	1.05E+03	mg/kg	M	6.9E-04	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.4E-02
	Phenanthrene	5.25E+01	mg/kg	5.25E+01	mg/kg	M	3.4E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.1E-03
	Pesticides												
	Dieldrin	8.69E-03	mg/kg	8.69E-03	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1221	8.14E-02	mg/kg	8.14E-02	mg/kg	M	5.7E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	8.2E-04
	Aroclor 1242	3.46E-01	mg/kg	3.46E-01	mg/kg	M	2.4E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.5E-03
	Aroclor 1248	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.6E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.9E-03
	Aroclor 1254	1.39E-01	mg/kg	1.39E-01	mg/kg	M	9.7E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.9E-03
	Aroclor 1260	2.01E-01	mg/kg	2.01E-01	mg/kg	M	1.4E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.0E-03
	PCBs	1.06E+00	mg/kg	1.06E+00	mg/kg	M	7.5E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	3.77E-04	mg/kg	3.77E-04	mg/kg	M	5.7E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												8.3E-02

Total Non-Cancer Hazards 0.22

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.12.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	1.8E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.8E-03
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.9E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.5E-03
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	1.6E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	5.4E-03
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	4.9E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.4E-05
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	4.9E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.6E-02
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	7.2E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	3.1E-03
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	5.2E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.7E-03
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	5.3E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	5.3E-05
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	2.8E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	4.3E-03
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	4.3E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	5.6E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.8E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	6.7E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.2E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	4.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	5.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	2.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.4E-05
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	2.0E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	7.6E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	2.5E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	7.4E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.7E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	5.6E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.9E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	2.0E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.8E-02
Dermal	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	6.0E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.0E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	2.5E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.0E-03
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA

TABLE 7.12.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	9.6E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	1.3E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.3E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	1.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.0E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	9.7E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	1.2E-05	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	5.6E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.9E-04
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	4.4E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	1.7E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	5.6E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.2E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	1.2E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.1E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	1.0E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.8E-03

Total Non-Cancer Hazards 0.04

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.13.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	3.0E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.0E-03
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	1.9E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.4E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	2.4E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.4E-03
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	2.6E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	8.8E-03
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	8.0E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.0E-05
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	7.9E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	2.6E-02
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	1.2E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	5.0E-03
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	8.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-03
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	8.6E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	8.6E-05
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	4.6E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	7.0E-03
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	7.0E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	9.2E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.6E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.7E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	7.1E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	8.6E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	4.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-04
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	3.2E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	1.2E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	4.1E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.0E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	9.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.0E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	3.2E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												6.2E-02
Dermal	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	8.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.8E-02
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	3.5E-07	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.4E-02
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA

TABLE 7.13.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	1.3E-04	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	1.7E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.7E-04
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.1E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.9E-04
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	1.4E-04	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	1.6E-04	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	7.8E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.6E-03
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	6.0E-05	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	2.4E-05	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	7.8E-05	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	2.3E-05	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-03
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	1.7E-04	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	5.8E-03
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	1.4E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												5.3E-02

Total Non-Cancer Hazards 0.12

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.14.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	3.5E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.5E-03
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	2.2E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	7.3E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	2.8E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.8E-03
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	3.0E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.0E-02
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	9.2E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.6E-05
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	9.1E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.0E-02
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	1.4E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	5.8E-03
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	9.7E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.2E-03
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	9.8E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	9.8E-05
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	5.3E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	8.1E-03
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	8.1E-06	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	5.3E-05
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	1.3E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.2E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	8.2E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	9.9E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	4.7E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.6E-04
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	3.7E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	1.4E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	4.7E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	1.4E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	6.9E-05
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.5E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	3.7E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												7.2E-02
Dermal	**Inorganics**												
	Aluminum	1.07E+04	mg/kg	1.07E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.80E+00	mg/kg	6.80E+00	mg/kg	M	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.4E-03
	Cadmium	8.60E+00	mg/kg	8.60E+00	mg/kg	M	4.3E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.7E-03
	Chromium	9.37E+01	mg/kg	9.37E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Cyanide	2.84E+00	mg/kg	2.84E+00	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA

TABLE 7.14.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-6 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Iron	2.82E+04	mg/kg	2.82E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	4.20E+02	mg/kg	4.20E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	3.02E+00	mg/kg	3.02E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.05E-02	mg/kg	3.05E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	1.65E+00	mg/kg	1.65E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benzo(a)pyrene	2.50E+01	mg/kg	2.50E+01	mg/kg	M	1.6E-05	mg/kg-day	NA		NA	NA	NA
	2-Methylnaphthalene	3.28E+00	mg/kg	3.28E+00	mg/kg	M	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-04
	Acenaphthylene	3.91E+00	mg/kg	3.91E+00	mg/kg	M	2.6E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.5E-05
	Benz(a)anthracene	2.55E+01	mg/kg	2.55E+01	mg/kg	M	1.7E-05	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.08E+01	mg/kg	3.08E+01	mg/kg	M	2.0E-05	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	9.6E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.2E-04
	Benzo(k)fluoranthene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	7.4E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	4.43E+00	mg/kg	4.43E+00	mg/kg	M	2.9E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.47E+01	mg/kg	1.47E+01	mg/kg	M	9.6E-06	mg/kg-day	NA		NA	NA	NA
	Naphthalene	4.28E+00	mg/kg	4.28E+00	mg/kg	M	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-04
	Phenanthrene	3.25E+01	mg/kg	3.25E+01	mg/kg	M	2.1E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.1E-04
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.15E-05	mg/kg	1.15E-05	mg/kg	M	1.7E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												6.5E-03

Total Non-Cancer Hazards 0.08

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.15.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	1.6E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	1.6E-03
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	8.8E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	2.2E-03
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.7E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	5.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.8E-03
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	2.8E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	9.2E-03
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	6.7E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.9E-03
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	4.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.6E-03
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	4.9E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	4.9E-05
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	3.9E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	5.9E-03
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	1.8E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	1.8E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	4.4E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	1.1E-07	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	3.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.7E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	3.9E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	2.0E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.4E-02
Dermal	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.5E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA

TABLE 7.15.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	3.9E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	4.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	3.4E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	9.8E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	8.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.2E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	9.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	1.0E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												7.6E-03

Total Non-Cancer Hazards 0.04

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.16.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	2.6E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.6E-03
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	1.4E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	3.6E-03
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	3.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.1E-02
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	8.9E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.0E-03
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	4.5E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.5E-02
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	1.1E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	4.7E-03
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.6E-03
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	8.0E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	8.0E-05
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	6.4E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	9.6E-03
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	2.9E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	3.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	7.1E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	1.8E-07	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	5.6E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.8E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	6.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	3.3E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												5.5E-02
Dermal	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.8E-02
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA

TABLE 7.16.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	5.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	5.7E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	4.7E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	1.4E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	3.5E-06	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	1.2E-06	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.8E-02
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	1.4E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.1E-01

Total Non-Cancer Hazards 0.16

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.17.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	3.0E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.0E-03
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	1.7E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	4.1E-03
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	3.8E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-02
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	1.0E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.4E-03
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	5.2E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.7E-02
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	1.3E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	5.4E-03
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	9.1E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.0E-03
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	9.2E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	9.2E-05
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	7.3E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	1.1E-02
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	3.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	3.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	2.9E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	8.2E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	2.1E-07	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	6.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.3E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	7.4E-08	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	3.8E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												6.3E-02
Dermal	**Inorganics**												
	Aluminum	9.34E+03	mg/kg	9.34E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Antimony	5.13E+00	mg/kg	5.13E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	1.17E+01	mg/kg	1.17E+01	mg/kg	M	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.9E-03
	Chromium	3.16E+01	mg/kg	3.16E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.61E+04	mg/kg	1.61E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.82E+00	mg/kg	2.82E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	2.85E-02	mg/kg	2.85E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA

TABLE 7.17.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-10 (NORTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Thallium	2.27E+00	mg/kg	2.27E+00	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	1.03E+00	mg/kg	1.03E+00	mg/kg	M	6.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.07E+00	mg/kg	1.07E+00	mg/kg	M	7.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	8.90E-01	mg/kg	8.90E-01	mg/kg	M	5.8E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.55E-01	mg/kg	2.55E-01	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.55E-01	mg/kg	6.55E-01	mg/kg	M	4.3E-07	mg/kg-day	NA		NA	NA	NA
	PCBs												
	Aroclor 1260	2.02E-01	mg/kg	2.02E-01	mg/kg	M	1.4E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.1E-03
	Sum of PCBs	2.28E-01	mg/kg	2.28E-01	mg/kg	M	1.6E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	1.18E-05	mg/kg	1.18E-05	mg/kg	M	1.8E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.3E-02

Total Non-Cancer Hazards 0.08

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.18.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	4.8E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	4.8E-04
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	3.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.2E-03
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	2.2E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.2E-03
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	1.7E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	5.5E-03
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	1.5E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	3.7E-04
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	4.7E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.3E-06
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	9.4E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.1E-03
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	1.5E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	6.3E-04
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	1.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.4E-04
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	1.6E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.6E-05
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	3.6E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	5.5E-04
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	2.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	9.3E-09	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	1.7E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	4.1E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-05
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	1.5E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.2E-04
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	2.3E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.2E-03
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	1.2E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.0E-04
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	5.0E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.7E-02
Dermal	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.9E-04
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	3.8E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.5E-03
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA

TABLE 7.18.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	5.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	5.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	3.8E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	2.1E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	3.7E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	9.1E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.0E-05
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	3.7E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	5.2E-04
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	5.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.8E-03
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	2.9E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.4E-03
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	1.2E-07	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												6.9E-03

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.19.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	7.8E-04	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	7.8E-04
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	5.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.9E-03
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	3.6E-06	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.6E-03
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	2.7E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	9.0E-03
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	2.4E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	6.0E-04
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	7.6E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.8E-06
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	1.5E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	5.1E-03
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	2.4E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.0E-03
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.9E-04
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	2.7E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.7E-05
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	5.9E-08	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	9.0E-04
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	4.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	4.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	2.8E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	1.5E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	2.7E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	6.6E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.2E-05
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	2.5E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.6E-04
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	3.8E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.9E-03
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	9.8E-04
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	8.2E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.7E-02
Dermal	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.2E-03
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	5.3E-07	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	2.1E-02
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA

TABLE 7.19.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	7.9E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	7.7E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	5.3E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	2.9E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	5.2E-06	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	1.3E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.2E-04
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	5.1E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	7.3E-03
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	7.7E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.8E-02
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	4.0E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.0E-02
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	1.7E-06	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												9.5E-02

Total Non-Cancer Hazards 0.12

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.20.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	2.8E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.8E-03
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.8E-03
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	1.3E-05	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.3E-02
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	9.8E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.3E-02
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	8.6E-05	mg/kg-day	4.0E-02	mg/kg-day	NA	NA	2.2E-03
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	2.8E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-05
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	5.5E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.8E-02
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	8.7E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	3.7E-03
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	9.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.2E-03
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	9.7E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	9.7E-05
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	2.1E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	3.3E-03
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	1.0E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	5.5E-08	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	9.8E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	2.4E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	8.0E-05
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	9.0E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.3E-03
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	1.4E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	6.8E-03
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	7.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.5E-03
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	3.0E-07	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												9.8E-02
Dermal	**Inorganics**												
	Aluminum	8.76E+03	mg/kg	8.76E+03	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	6.30E+00	mg/kg	6.30E+00	mg/kg	M	9.5E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.2E-03
	Cadmium	4.07E+01	mg/kg	4.07E+01	mg/kg	M	2.0E-07	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	8.2E-03
	Chromium	3.03E+02	mg/kg	3.03E+02	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Copper	2.67E+02	mg/kg	2.67E+02	mg/kg	M	NA		4.0E-02	mg/kg-day	NA	NA	NA

TABLE 7.20.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-12 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	Cyanide	8.53E-01	mg/kg	8.53E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	2.68E+02	mg/kg	2.68E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	2.98E+00	mg/kg	2.98E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	3.01E-02	mg/kg	3.01E-02	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	Thallium	6.65E-01	mg/kg	6.65E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	PAHs												
	Benz(a)anthracene	4.65E+00	mg/kg	4.65E+00	mg/kg	M	3.0E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	4.55E+00	mg/kg	4.55E+00	mg/kg	M	3.0E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	3.15E+00	mg/kg	3.15E+00	mg/kg	M	2.1E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	1.70E-01	mg/kg	1.70E-01	mg/kg	M	1.1E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	3.05E+00	mg/kg	3.05E+00	mg/kg	M	2.0E-06	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	7.45E+00	mg/kg	7.45E+00	mg/kg	M	4.9E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.6E-04
	PCBs												
	Aroclor 1242	2.79E-01	mg/kg	2.79E-01	mg/kg	M	2.0E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	2.8E-03
	Aroclor 1254	4.22E-01	mg/kg	4.22E-01	mg/kg	M	3.0E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.5E-02
	Aroclor 1260	2.19E-01	mg/kg	2.19E-01	mg/kg	M	1.5E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.7E-03
	Sum of PCBs	9.20E-01	mg/kg	9.20E-01	mg/kg	M	6.5E-07	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.7E-02

Total Non-Cancer Hazards 0.13

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.21.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	1.8E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	4.5E-04
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	4.7E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.6E-03
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	2.8E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	4.0E-04
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	1.6E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	1.6E-04
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	3.9E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.3E-03
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	5.7E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.9E-03
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	1.6E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	7.1E-04
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	7.7E-03
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	2.3E-08	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	2.3E-04
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	2.1E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.3E-04
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	4.9E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.6E-05
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	1.5E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.9E-04
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	6.2E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	5.7E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	5.0E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	3.1E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.0E-05
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	4.4E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	1.5E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	3.3E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	9.0E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.0E-05
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	2.1E-09	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	7.1E-05
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	1.6E-09	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	3.2E-05
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	3.9E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	5.5E-04
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	3.4E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.7E-03
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	1.7E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	8.6E-04
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	7.3E-08	mg/kg-day	NA		NA	NA	NA

TABLE 7.21.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	4.8E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.8E-02
Dermal	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	2.4E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	8.0E-04
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	2.8E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.1E-04
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	3.6E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	3.9E-04
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	8.3E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.8E-05
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	2.6E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.3E-04
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	1.3E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	1.1E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	6.8E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.3E-05
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	9.7E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	3.2E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	7.3E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	2.0E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.7E-05
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	NA		3.0E-05	mg/kg-day	NA	NA	NA
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	9.2E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.3E-03
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	8.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	4.0E-03
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	4.1E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.1E-03
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	1.8E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	2.5E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												9.2E-03

Total Non-Cancer Hazards 0.03

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.22.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	2.9E-07	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	7.4E-04
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.5E-03
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	4.6E-05	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	6.5E-04
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	2.6E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	2.6E-04
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	6.3E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.1E-03
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	9.3E-04	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	3.1E-03
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	2.7E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	1.2E-03
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	3.8E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.3E-02
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	3.8E-08	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.8E-04
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	3.4E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	3.8E-04
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	7.9E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.6E-05
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	2.5E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	3.1E-04
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.0E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	9.3E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	8.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	5.0E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.7E-05
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	7.1E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	2.4E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	5.4E-07	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	1.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.9E-05
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	3.4E-09	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	1.1E-04
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	2.6E-09	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	5.2E-05
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	6.3E-08	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	9.0E-04
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	5.5E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.7E-03
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	2.8E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.4E-03
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	1.2E-07	mg/kg-day	NA		NA	NA	NA

TABLE 7.22.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	7.9E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.9E-02
Dermal	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	3.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.1E-02
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	3.8E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.5E-03
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	4.9E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	5.5E-03
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	1.2E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.9E-04
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	3.6E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	4.5E-03
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	1.9E-05	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	1.8E-05	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	1.5E-05	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	9.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.2E-04
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	1.3E-05	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	4.5E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	1.0E-05	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	2.8E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.3E-04
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	NA		3.0E-05	mg/kg-day	NA	NA	NA
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	1.3E-06	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	1.8E-02
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	1.1E-06	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.6E-02
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	5.7E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.9E-02
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	2.4E-06	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	3.4E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												1.3E-01

Total Non-Cancer Hazards 0.16

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.23.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	1.1E-06	mg/kg-day	4.0E-04	mg/kg-day	NA	NA	2.7E-03
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	2.8E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.2E-03
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	1.7E-04	mg/kg-day	7.0E-02	mg/kg-day	NA	NA	2.4E-03
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	9.5E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	9.5E-04
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	2.3E-05	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	7.6E-03
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	3.4E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.1E-02
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	9.7E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	4.2E-03
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.5E-02
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	1.4E-07	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.4E-03
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	1.2E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.4E-03
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	2.9E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	9.6E-05
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	9.0E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.1E-03
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	3.7E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	3.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	2.9E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	1.8E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	6.0E-05
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	2.6E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	8.6E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	1.9E-06	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	5.3E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.8E-04
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	1.2E-08	mg/kg-day	3.0E-05	mg/kg-day	NA	NA	4.2E-04
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	9.5E-09	mg/kg-day	5.0E-05	mg/kg-day	NA	NA	1.9E-04
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	2.3E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	3.3E-03
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	2.0E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.0E-02
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	1.0E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.1E-03
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	4.3E-07	mg/kg-day	NA		NA	NA	NA

TABLE 7.23.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WETLAND SYW-19 (SOUTH BASIN) - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	2.8E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.1E-01
Dermal	**Inorganics**												
	Antimony	3.30E+00	mg/kg	3.30E+00	mg/kg	M	NA		6.0E-05	mg/kg-day	NA	NA	NA
	Arsenic	8.55E+00	mg/kg	8.55E+00	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.3E-03
	Barium	5.12E+02	mg/kg	5.12E+02	mg/kg	M	NA		4.9E-03	mg/kg-day	NA	NA	NA
	Cadmium	2.95E+00	mg/kg	2.95E+00	mg/kg	M	1.5E-08	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	5.9E-04
	Chromium	7.03E+01	mg/kg	7.03E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.04E+04	mg/kg	1.04E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.01E+02	mg/kg	3.01E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Mercury(inorganic)	4.22E+01	mg/kg	4.22E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Methylmercury	4.26E-01	mg/kg	4.26E-01	mg/kg	M	NA		1.0E-04	mg/kg-day	NA	NA	NA
	SVOCs												
	1,3-Dichlorobenzene	3.79E+00	mg/kg	3.79E+00	mg/kg	M	1.9E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.1E-03
	1,4-Dichlorobenzene	8.90E+00	mg/kg	8.90E+00	mg/kg	M	4.5E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.5E-04
	Hexachlorobenzene	2.78E+00	mg/kg	2.78E+00	mg/kg	M	1.4E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.7E-03
	PAHs												
	Benz(a)anthracene	1.14E+01	mg/kg	1.14E+01	mg/kg	M	7.4E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	1.04E+01	mg/kg	1.04E+01	mg/kg	M	6.8E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	9.05E+00	mg/kg	9.05E+00	mg/kg	M	5.9E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	5.60E+00	mg/kg	5.60E+00	mg/kg	M	3.7E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-04
	Benzo(k)fluoranthene	7.95E+00	mg/kg	7.95E+00	mg/kg	M	5.2E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	2.65E+00	mg/kg	2.65E+00	mg/kg	M	1.7E-06	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	6.00E+00	mg/kg	6.00E+00	mg/kg	M	3.9E-06	mg/kg-day	NA		NA	NA	NA
	Phenanthrene	1.65E+01	mg/kg	1.65E+01	mg/kg	M	1.1E-05	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	3.6E-04
	Pesticides												
	Aldrin	3.86E-02	mg/kg	3.86E-02	mg/kg	M	NA		3.0E-05	mg/kg-day	NA	NA	NA
	Dieldrin	2.93E-02	mg/kg	2.93E-02	mg/kg	M	NA		5.0E-05	mg/kg-day	NA	NA	NA
	PCBs												
	Aroclor 1242	7.05E-01	mg/kg	7.05E-01	mg/kg	M	5.0E-07	mg/kg-day	7.0E-05	mg/kg-day	NA	NA	7.1E-03
	Aroclor 1254	6.17E-01	mg/kg	6.17E-01	mg/kg	M	4.3E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	2.2E-02
	Aroclor 1260	3.14E-01	mg/kg	3.14E-01	mg/kg	M	2.2E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.1E-02
	Sum of PCBs	1.34E+00	mg/kg	1.34E+00	mg/kg	M	9.4E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	8.81E-04	mg/kg	8.81E-04	mg/kg	M	1.3E-10	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												4.9E-02

Total Non-Cancer Hazards 0.16

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.24.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
DREDGE SPOIL SOILS - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	2.1E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	2.1E-03
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.8E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	5.1E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.7E-03
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	2.9E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	9.8E-03
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	6.1E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	2.6E-03
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	6.9E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.3E-03
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	7.1E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	8.8E-05
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	2.2E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												2.3E-02
Dermal	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	7.4E-07	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.5E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	1.2E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.5E-04
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	5.0E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.6E-03

Total Non-Cancer Hazards 0.03

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.25.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
DREDGE SPOIL SOILS - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	3.4E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.4E-03
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	7.8E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	8.2E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.7E-03
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	4.8E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.6E-02
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	9.9E-05	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	4.3E-03
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.7E-03
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	1.1E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.4E-04
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	3.6E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												3.8E-02
Dermal	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	1.0E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.4E-02
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	1.7E-06	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.1E-03
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	6.9E-07	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												3.6E-02

Total Non-Cancer Hazards 0.07

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.26.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
DREDGE SPOIL SOILS - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	3.9E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.9E-03
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.0E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	9.5E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.2E-03
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	5.5E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.8E-02
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	1.1E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	4.9E-03
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.3E-03
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	1.3E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.7E-04
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	4.2E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												4.4E-02
Dermal	**Inorganics**												
	Aluminum	1.21E+04	mg/kg	1.21E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.40E+00	mg/kg	8.40E+00	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.2E-03
	Chromium	2.94E+01	mg/kg	2.94E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Iron	1.71E+04	mg/kg	1.71E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.54E+02	mg/kg	3.54E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.00E+00	mg/kg	4.00E+00	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	4.10E-01	mg/kg	4.10E-01	mg/kg	M	2.1E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	2.6E-04
	PAHs												
	Benzo(a)pyrene	1.30E-01	mg/kg	1.30E-01	mg/kg	M	8.5E-08	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												4.5E-03

Total Non-Cancer Hazards 0.05

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.27.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
DREDGE SPOIL SUBSURFACE SOILS - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Subsurface Soil
Exposure Point: Dredge Spoil Soils (0-11.7 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Inorganics**												
	Aluminum	1.02E+04	mg/kg	1.02E+04	mg/kg	M	3.3E-03	mg/kg-day	1.0E+00	mg/kg-day	NA	NA	3.3E-03
	Arsenic	8.73E+00	mg/kg	8.73E+00	mg/kg	M	2.8E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	9.4E-03
	Cadmium	9.68E-01	mg/kg	9.68E-01	mg/kg	M	3.1E-07	mg/kg-day	1.0E-03	mg/kg-day	NA	NA	3.1E-04
	Chromium	2.60E+01	mg/kg	2.60E+01	mg/kg	M	8.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.8E-03
	Cyanide	8.37E-01	mg/kg	8.37E-01	mg/kg	M	2.7E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-05
	Iron	1.51E+04	mg/kg	1.51E+04	mg/kg	M	4.9E-03	mg/kg-day	3.0E-01	mg/kg-day	NA	NA	1.6E-02
	Manganese	3.82E+02	mg/kg	3.82E+02	mg/kg	M	1.2E-04	mg/kg-day	2.3E-02	mg/kg-day	NA	NA	5.3E-03
	Total Mercury	4.79E+01	mg/kg	4.79E+01	mg/kg	M	1.5E-05	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	5.2E-02
	Thallium	4.91E-01	mg/kg	4.91E-01	mg/kg	M	1.6E-07	mg/kg-day	6.6E-05	mg/kg-day	NA	NA	2.4E-03
	SVOCs												
	Hexachlorobenzene	2.25E-01	mg/kg	2.25E-01	mg/kg	M	7.3E-08	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	9.1E-05
	PAHs												
	Benz(a)anthracene	2.50E+00	mg/kg	2.50E+00	mg/kg	M	8.1E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	2.63E+00	mg/kg	2.63E+00	mg/kg	M	8.5E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.28E+00	mg/kg	2.28E+00	mg/kg	M	7.4E-07	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	4.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.4E-05
	Benzo(k)fluoranthene	2.29E+00	mg/kg	2.29E+00	mg/kg	M	7.4E-07	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	6.09E-01	mg/kg	6.09E-01	mg/kg	M	2.0E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	4.2E-07	mg/kg-day	NA		NA	NA	NA
	Naphthalene	2.84E+00	mg/kg	2.84E+00	mg/kg	M	9.2E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.6E-05
	Phenanthrene	1.19E+00	mg/kg	1.19E+00	mg/kg	M	3.8E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.3E-05
	PCBs												
	Aroclor 1254	2.09E-01	mg/kg	2.09E-01	mg/kg	M	6.7E-08	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	3.4E-03
	Aroclor 1268	3.62E-01	mg/kg	3.62E-01	mg/kg	M	1.2E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	5.8E-03
	Sum of PCBs	6.31E-01	mg/kg	6.31E-01	mg/kg	M	2.0E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	4.38E-05	mg/kg	4.38E-05	mg/kg	M	1.4E-11	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Ingestion												1.0E-01

TABLE 7.27.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
DREDGE SPOIL SUBSURFACE SOILS - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Dermal	**Inorganics**												
	Aluminum	1.02E+04	mg/kg	1.02E+04	mg/kg	M	NA		1.0E+00	mg/kg-day	NA	NA	NA
	Arsenic	8.73E+00	mg/kg	8.73E+00	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	4.4E-03
	Cadmium	9.68E-01	mg/kg	9.68E-01	mg/kg	M	4.9E-09	mg/kg-day	2.5E-05	mg/kg-day	NA	NA	1.9E-04
	Chromium	2.60E+01	mg/kg	2.60E+01	mg/kg	M	NA		7.5E-05	mg/kg-day	NA	NA	NA
	Cyanide	8.37E-01	mg/kg	8.37E-01	mg/kg	M	NA		2.0E-02	mg/kg-day	NA	NA	NA
	Iron	1.51E+04	mg/kg	1.51E+04	mg/kg	M	NA		3.0E-01	mg/kg-day	NA	NA	NA
	Manganese	3.82E+02	mg/kg	3.82E+02	mg/kg	M	NA		5.6E-03	mg/kg-day	NA	NA	NA
	Total Mercury	4.79E+01	mg/kg	4.79E+01	mg/kg	M	NA		2.1E-05	mg/kg-day	NA	NA	NA
	Thallium	4.91E-01	mg/kg	4.91E-01	mg/kg	M	NA		6.6E-05	mg/kg-day	NA	NA	NA
	SVOCs												
	Hexachlorobenzene	2.25E-01	mg/kg	2.25E-01	mg/kg	M	1.1E-07	mg/kg-day	8.0E-04	mg/kg-day	NA	NA	1.4E-04
	PAHs												
	Benz(a)anthracene	2.50E+00	mg/kg	2.50E+00	mg/kg	M	1.6E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(a)pyrene	2.63E+00	mg/kg	2.63E+00	mg/kg	M	1.7E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(b)fluoranthene	2.28E+00	mg/kg	2.28E+00	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Benzo(g,h,i)perylene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	8.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.8E-05
	Benzo(k)fluoranthene	2.29E+00	mg/kg	2.29E+00	mg/kg	M	1.5E-06	mg/kg-day	NA		NA	NA	NA
	Dibenz(a,h)anthracene	6.09E-01	mg/kg	6.09E-01	mg/kg	M	4.0E-07	mg/kg-day	NA		NA	NA	NA
	Indeno(1,2,3-cd)pyrene	1.29E+00	mg/kg	1.29E+00	mg/kg	M	8.4E-07	mg/kg-day	NA		NA	NA	NA
	Naphthalene	2.84E+00	mg/kg	2.84E+00	mg/kg	M	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	9.3E-05
	Phenanthrene	1.19E+00	mg/kg	1.19E+00	mg/kg	M	7.7E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.6E-05
	PCBs												
	Aroclor 1254	2.09E-01	mg/kg	2.09E-01	mg/kg	M	1.5E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	7.3E-03
	Aroclor 1268	3.62E-01	mg/kg	3.62E-01	mg/kg	M	2.5E-07	mg/kg-day	2.0E-05	mg/kg-day	NA	NA	1.3E-02
	Sum of PCBs	6.31E-01	mg/kg	6.31E-01	mg/kg	M	4.4E-07	mg/kg-day	NA		NA	NA	NA
	PCDD/PCDFs												
	TEQ as 2,3,7,8-TCDD	4.38E-05	mg/kg	4.38E-05	mg/kg	M	6.6E-12	mg/kg-day	NA		NA	NA	NA
	Sum of Non-Cancer Hazards from Dermal Contact												2.5E-02

Total Non-Cancer Hazards 0.13

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.28.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	2.5E-07	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	5.0E-04
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	5.2E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	1.7E-04
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	1.8E-05	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	1.3E-04
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	3.0E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	3.0E-06
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	1.9E-09	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	6.2E-06
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	1.3E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	4.4E-05
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	5.4E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	2.7E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.4E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.1E-06
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	1.5E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	1.5E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	1.3E-07	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	1.5E-06
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	1.2E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	1.3E-04
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	1.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	4.6E-06
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	1.3E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	1.3E-05
	Sum of Non-Cancer Hazards from Ingestion												1.0E-03
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	8.9E-08	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	7.1E-03
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	3.8E-07	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	5.0E-03
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	6.6E-06	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	1.2E-03
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	1.1E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.1E-06
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	6.7E-10	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	3.2E-05
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	8.2E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.7E-04
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	1.5E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	7.5E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	9.3E-05
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	5.0E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	5.0E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	2.9E-06	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	3.2E-05

TABLE 7.28.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	3.7E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	4.1E-03
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	3.1E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.0E-04
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	5.8E-06	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	5.8E-04
	Sum of Non-Cancer Hazards from Dermal Contact												1.9E-02

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.29.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Younger Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	1.2E-06	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	2.3E-03
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	2.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	8.2E-04
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	8.5E-05	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	6.1E-04
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	1.4E-09	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.4E-05
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	8.6E-09	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	2.9E-05
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	6.2E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.1E-04
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	2.5E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.3E-05
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	6.7E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.3E-05
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	6.9E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	6.9E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	6.1E-07	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	6.8E-06
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	5.6E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	6.3E-04
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	6.4E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.1E-05
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	6.1E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	6.1E-05
	Sum of Non-Cancer Hazards from Ingestion												4.8E-03
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	1.5E-07	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	1.2E-02
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	6.5E-07	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	8.6E-03
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	1.1E-05	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	2.0E-03
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	1.8E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.8E-06
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	1.1E-09	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	5.4E-05
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	1.4E-06	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	4.7E-04
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	2.6E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.3E-05
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	3.2E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.6E-04
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	8.5E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	8.5E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	4.9E-06	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	5.5E-05

TABLE 7.29.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	6.3E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	7.0E-03
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	5.3E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.8E-04
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	9.9E-06	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	9.9E-04
	Sum of Non-Cancer Hazards from Dermal Contact												3.2E-02

Total Non-Cancer Hazards 0.04

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.30.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	4.0E-07	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	8.1E-04
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	8.5E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.8E-04
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	3.0E-05	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	2.1E-04
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	4.8E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	4.8E-06
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	3.0E-09	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	1.0E-05
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	2.2E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	7.2E-05
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	8.7E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	4.4E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	2.3E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.2E-05
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	2.4E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	2.4E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	2.1E-07	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	2.4E-06
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	2.0E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	2.2E-04
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	2.2E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	7.5E-06
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	2.1E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	2.1E-05
	Sum of Non-Cancer Hazards from Ingestion												1.7E-03
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	1.0E-07	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	8.4E-03
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	4.4E-07	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	5.9E-03
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	7.7E-06	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	1.4E-03
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	1.3E-10	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.3E-06
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	7.8E-10	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	3.7E-05
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	9.7E-07	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	3.2E-04
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	1.8E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.8E-06
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	2.2E-06	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.1E-04
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	5.9E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	5.9E-05
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	3.4E-06	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	3.7E-05

TABLE 7.30.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	4.4E-06	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	4.8E-03
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	3.6E-06	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-04
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	6.8E-06	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	6.8E-04
	Sum of Non-Cancer Hazards from Dermal Contact												2.2E-02

Total Non-Cancer Hazards 0.02

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

TABLE 7.31.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
Ingestion	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	1.3E-08	mg/kg-day	5.0E-04	mg/kg-day	NA	NA	2.6E-05
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	2.7E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	9.2E-06
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	9.6E-07	mg/kg-day	1.4E-01	mg/kg-day	NA	NA	6.8E-06
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	1.6E-11	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	1.6E-07
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	9.7E-11	mg/kg-day	3.0E-04	mg/kg-day	NA	NA	3.2E-07
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	6.9E-09	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.3E-06
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	2.8E-09	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	1.4E-07
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	7.5E-09	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	3.7E-07
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	7.7E-09	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	7.7E-07
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	6.9E-09	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	7.6E-08
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	6.3E-09	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	7.0E-06
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	7.2E-09	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	2.4E-07
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	6.8E-09	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	6.8E-07
	Sum of Non-Cancer Hazards from Ingestion												5.4E-05
Dermal	**Metals and Organometallic Compounds**												
	Cadmium	1.11E-03	mg/L	1.11E-03	mg/L	M	6.2E-09	mg/kg-day	1.3E-05	mg/kg-day	NA	NA	4.9E-04
	Chromium	2.34E-03	mg/L	2.34E-03	mg/L	M	2.6E-08	mg/kg-day	7.5E-05	mg/kg-day	NA	NA	3.5E-04
	Manganese	8.17E-02	mg/L	8.17E-02	mg/L	M	4.6E-07	mg/kg-day	5.6E-03	mg/kg-day	NA	NA	8.1E-05
	Methylmercury	1.33E-06	mg/L	1.33E-06	mg/L	M	7.4E-12	mg/kg-day	1.0E-04	mg/kg-day	NA	NA	7.4E-08
	Total Mercury	8.28E-06	mg/L	8.28E-06	mg/L	M	4.6E-11	mg/kg-day	2.1E-05	mg/kg-day	NA	NA	2.2E-06
	VOCs												
	Benzene	5.90E-04	mg/L	5.90E-04	mg/L	M	7.6E-08	mg/kg-day	3.0E-03	mg/kg-day	NA	NA	2.5E-05
	Bromodichloromethane	2.40E-04	mg/L	2.40E-04	mg/L	M	1.7E-08	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	8.5E-07
	Chlorobenzene	6.37E-04	mg/L	6.37E-04	mg/L	M	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	NA	NA	9.6E-06
	Chloroform	6.58E-04	mg/L	6.58E-04	mg/L	M	5.0E-08	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	5.0E-06
	SVOCs												
	1,2-Dichlorobenzene	5.85E-04	mg/L	5.85E-04	mg/L	M	3.4E-07	mg/kg-day	9.0E-02	mg/kg-day	NA	NA	3.8E-06

TABLE 7.31.RME
CALCULATION OF NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
SURFACE WATER - ONONDAGA LAKE

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation	Intake (Non-cancer)	Intake (Non-cancer) Units	Reference Dose[c]	Reference Dose Units	Reference Concen-tration	Reference Concen-tration Units	Hazard Quotient
	1,3-Dichlorobenzene	5.39E-04	mg/L	5.39E-04	mg/L	M	4.5E-07	mg/kg-day	9.0E-04	mg/kg-day	NA	NA	5.0E-04
	1,4-Dichlorobenzene	6.17E-04	mg/L	6.17E-04	mg/L	M	3.7E-07	mg/kg-day	3.0E-02	mg/kg-day	NA	NA	1.2E-05
	1,2,4-Trichlorobenzene	5.82E-04	mg/L	5.82E-04	mg/L	M	6.2E-07	mg/kg-day	1.0E-02	mg/kg-day	NA	NA	6.2E-05
	Sum of Non-Cancer Hazards from Dermal Contact												1.5E-03

Total Non-Cancer Hazards 0.002

Please refer to Table 7.32 for footnotes, acronyms and abbreviations.

Table 7.32
Footnotes and Acronyms and Abbreviations for Tables 7.1 through 7.31

Acronyms and abbreviations

NA	-	not applicable
EPA	-	U.S. Environmental Protection Agency
EPC	-	Exposure Point Concentration
M	-	medium-specific
NCEA-STSC	-	National Center for Environmental Assessment - Superfund Technical Support Center (USEPA)
PAHs	-	Polycyclic aromatic hydrocarbons
PCBs	-	Polychlorinated biphenyls
PCDD/PCDFs	-	Polychlorinated dibenzo-*p* -dioxins and dibenzofurans
SVOCs	-	Semivolatile Organic Compounds
TEQ	-	Toxic equivalents (as 2,3,7,8-TCDD) (See report section 5.2.7 and Table 5-1.)
VOCs	-	Volatile Organic Compounds

Footnotes

[a] EPCs are either the 95th percentile UCL on the mean or the maximum concentration; see RAGS tables 3.1 - 3.10

[b] [Not needed]

[c] Toxicity values (RfDs) obtained from IRIS (accessed 2002), EPA Health Effects Assessment Summary Tables (HEAST) (USEPA, 1997b) or NCEA (2002). See detailed chemical-specific discussion in Chapter 5.
Toxicity values were adjusted to account for oral absorption (ABS_{GI}) to calculate risks for dermal exposure on the basis of absorbed dose. See Section 5.1.2.
Toxicity information for chromium assume chromium in form of Chromium(VI). See discussion in Chapter 5.
Toxicity information for arsenic in fish assume inorganic arsenic. See discussion in Chapter 5.
Methylmercury toxicity value used in hazard calculations for fish tissue. See discussion in Chapter 5.

Table 8.1.CT
Calculation of Cancer Risks
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish Fillet Tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adults (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.9E-01	mg/kg	9.9E-01	mg/kg	M	1.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic (inorganic)	8.0E-02	mg/kg	8.0E-02	mg/kg	M	1.2E-06	mg/kg-day	1.5	(mg/kg/day)-1	1.8E-06
	Chromium	5.7E-01	mg/kg	5.7E-01	mg/kg	M	8.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	5.7E+00	mg/kg	5.7E+00	mg/kg	M	8.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.2E+00	mg/kg	3.2E+00	mg/kg	M	4.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury (as methylmercury)	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Selenium	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	6.3E-01	mg/kg	6.3E-01	mg/kg	M	9.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Zinc	4.4E+01	mg/kg	4.4E+01	mg/kg	M	6.4E-04	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	bis(2-ethylhexyl)phthalate	2.3E+00	mg/kg	2.3E+00	mg/kg	M	3.4E-05	mg/kg-day	0.014	(mg/kg/day)-1	4.7E-07
	Hexachlorobenzene	1.3E-02	mg/kg	1.3E-02	mg/kg	M	1.9E-07	mg/kg-day	1.6	(mg/kg/day)-1	3.1E-07
	Pesticides										
	2,4'-DDE	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	4,4'-DDD	1.3E-02	mg/kg	1.3E-02	mg/kg	M	1.9E-07	mg/kg-day	0.24	(mg/kg/day)-1	4.7E-08
	4,4'-DDE	3.4E-02	mg/kg	3.4E-02	mg/kg	M	5.1E-07	mg/kg-day	0.34	(mg/kg/day)-1	1.7E-07
	4,4'-DDT	9.5E-03	mg/kg	9.5E-03	mg/kg	M	1.4E-07	mg/kg-day	0.34	(mg/kg/day)-1	4.7E-08
	Aldrin	2.5E-03	mg/kg	2.5E-03	mg/kg	M	3.7E-08	mg/kg-day	17	(mg/kg/day)-1	6.3E-07
	delta-BHC	2.5E-03	mg/kg	2.5E-03	mg/kg	M	3.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Dieldrin	3.8E-03	mg/kg	3.8E-03	mg/kg	M	5.6E-08	mg/kg-day	16	(mg/kg/day)-1	9.0E-07
	Heptachlor epoxide	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.1E-08	mg/kg-day	9.1	(mg/kg/day)-1	5.5E-07
	Sum of Chlordanes	9.7E-03	mg/kg	9.7E-03	mg/kg	M	1.4E-07	mg/kg-day	0.35	(mg/kg/day)-1	5.0E-08
	PCBs										
	Aroclor 1016	4.9E-01	mg/kg	4.9E-01	mg/kg	M	7.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	9.6E-01	mg/kg	9.6E-01	mg/kg	M	1.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	7.2E-01	mg/kg	7.2E-01	mg/kg	M	1.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclors 1254 & 1260	5.5E-01	mg/kg	5.5E-01	mg/kg	M	8.1E-06	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.1.CT
Calculation of Cancer Risks
Central Tendency
Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Sum of PCBs	9.1E-01	mg/kg	9.1E-01	mg/kg	M	9.0E-06	mg/kg-day	1	(mg/kg/day)-1	9.0E-06
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-05	mg/kg	2.0E-05	mg/kg	M	1.9E-10	mg/kg-day	150000	(mg/kg/day)-1	2.9E-05
										Sum of Cancer Risk from Ingestion	4.3E-05
Dermal											
										Sum of Cancer Risk from Dermal Contact	NA
										Total Cancer Risk	4.3E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.2.CT
Calculation of Cancer Risks
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish Fillet Tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Young Child (less than 6)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.9E-01	mg/kg	9.9E-01	mg/kg	M	1.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic (inorganic)	8.0E-02	mg/kg	8.0E-02	mg/kg	M	1.2E-06	mg/kg-day	1.5	(mg/kg/day)-1	1.8E-06
	Chromium	5.7E-01	mg/kg	5.7E-01	mg/kg	M	8.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	5.7E+00	mg/kg	5.7E+00	mg/kg	M	8.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.2E+00	mg/kg	3.2E+00	mg/kg	M	4.9E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury (as methylmercury	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Selenium	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	6.3E-01	mg/kg	6.3E-01	mg/kg	M	9.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Zinc	4.4E+01	mg/kg	4.4E+01	mg/kg	M	6.7E-04	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	bis(2-ethylhexyl)phthalate	2.3E+00	mg/kg	2.3E+00	mg/kg	M	3.5E-05	mg/kg-day	0.014	(mg/kg/day)-1	4.9E-07
	Hexachlorobenzene	1.3E-02	mg/kg	1.3E-02	mg/kg	M	2.0E-07	mg/kg-day	1.6	(mg/kg/day)-1	3.2E-07
	Pesticides										
	2,4'-DDE	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	4,4'-DDD	1.3E-02	mg/kg	1.3E-02	mg/kg	M	2.0E-07	mg/kg-day	0.24	(mg/kg/day)-1	4.8E-08
	4,4'-DDE	3.4E-02	mg/kg	3.4E-02	mg/kg	M	5.2E-07	mg/kg-day	0.34	(mg/kg/day)-1	1.8E-07
	4,4'-DDT	9.5E-03	mg/kg	9.5E-03	mg/kg	M	1.4E-07	mg/kg-day	0.34	(mg/kg/day)-1	4.9E-08
	Aldrin	2.5E-03	mg/kg	2.5E-03	mg/kg	M	3.9E-08	mg/kg-day	17	(mg/kg/day)-1	6.6E-07
	delta-BHC	2.5E-03	mg/kg	2.5E-03	mg/kg	M	3.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Dieldrin	3.8E-03	mg/kg	3.8E-03	mg/kg	M	5.8E-08	mg/kg-day	16	(mg/kg/day)-1	9.3E-07
	Heptachlor epoxide	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.3E-08	mg/kg-day	9.1	(mg/kg/day)-1	5.7E-07
	Sum of Chlordanes	9.7E-03	mg/kg	9.7E-03	mg/kg	M	1.5E-07	mg/kg-day	0.35	(mg/kg/day)-1	5.2E-08
	PCBs										
	Aroclor 1016	4.9E-01	mg/kg	4.9E-01	mg/kg	M	7.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	9.6E-01	mg/kg	9.6E-01	mg/kg	M	1.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	7.2E-01	mg/kg	7.2E-01	mg/kg	M	1.1E-05	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.2.CT
Calculation of Cancer Risks
Central Tendency
Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclors 1254 & 1260	5.5E-01	mg/kg	5.5E-01	mg/kg	M	8.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.1E-01	mg/kg	9.1E-01	mg/kg	M	9.3E-06	mg/kg-day	1	(mg/kg/day)-1	9.3E-06
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-05	mg/kg	2.0E-05	mg/kg	M	2.0E-10	mg/kg-day	150000	(mg/kg/day)-1	3.0E-05
										Sum of Cancer Risk from Ingestion	4.4E-05
Dermal											
										Sum of Cancer Risk from Dermal Contact	NA
										Total Cancer Risk	4.4E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.3.CT
Calculation of Cancer Risks
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish Fillet Tissue from Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.9E-01	mg/kg	9.9E-01	mg/kg	M	1.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic (inorganic)	8.0E-02	mg/kg	8.0E-02	mg/kg	M	1.3E-06	mg/kg-day	1.5	(mg/kg/day)-1	1.9E-06
	Chromium	5.7E-01	mg/kg	5.7E-01	mg/kg	M	9.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	5.7E+00	mg/kg	5.7E+00	mg/kg	M	9.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury (as methylmercury	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Selenium	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	6.3E-01	mg/kg	6.3E-01	mg/kg	M	1.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Zinc	4.4E+01	mg/kg	4.4E+01	mg/kg	M	7.0E-04	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	bis(2-ethylhexyl)phthalate	2.3E+00	mg/kg	2.3E+00	mg/kg	M	3.7E-05	mg/kg-day	0.014	(mg/kg/day)-1	5.1E-07
	Hexachlorobenzene	1.3E-02	mg/kg	1.3E-02	mg/kg	M	2.1E-07	mg/kg-day	1.6	(mg/kg/day)-1	3.3E-07
	Pesticides										
	2,4'-DDE	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	4,4'-DDD	1.3E-02	mg/kg	1.3E-02	mg/kg	M	2.1E-07	mg/kg-day	0.24	(mg/kg/day)-1	5.1E-08
	4,4'-DDE	3.4E-02	mg/kg	3.4E-02	mg/kg	M	5.5E-07	mg/kg-day	0.34	(mg/kg/day)-1	1.9E-07
	4,4'-DDT	9.5E-03	mg/kg	9.5E-03	mg/kg	M	1.5E-07	mg/kg-day	0.34	(mg/kg/day)-1	5.1E-08
	Aldrin	2.5E-03	mg/kg	2.5E-03	mg/kg	M	4.0E-08	mg/kg-day	17	(mg/kg/day)-1	6.9E-07
	delta-BHC	2.5E-03	mg/kg	2.5E-03	mg/kg	M	4.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Dieldrin	3.8E-03	mg/kg	3.8E-03	mg/kg	M	6.1E-08	mg/kg-day	16	(mg/kg/day)-1	9.7E-07
	Heptachlor epoxide	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.6E-08	mg/kg-day	9.1	(mg/kg/day)-1	6.0E-07
	Sum of Chlordanes	9.7E-03	mg/kg	9.7E-03	mg/kg	M	1.6E-07	mg/kg-day	0.35	(mg/kg/day)-1	5.4E-08
	PCBs										
	Aroclor 1016	4.9E-01	mg/kg	4.9E-01	mg/kg	M	7.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	9.6E-01	mg/kg	9.6E-01	mg/kg	M	1.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	7.2E-01	mg/kg	7.2E-01	mg/kg	M	1.1E-05	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.3.CT
Calculation of Cancer Risks
Central Tendency
Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclors 1254 & 1260	5.5E-01	mg/kg	5.5E-01	mg/kg	M	8.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.1E-01	mg/kg	9.1E-01	mg/kg	M	9.8E-06	mg/kg-day	1	(mg/kg/day)-1	9.8E-06
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-05	mg/kg	2.0E-05	mg/kg	M	2.1E-10	mg/kg-day	150000	(mg/kg/day)-1	3.1E-05
										Sum of Cancer Risk from Ingestion	4.6E-05
Dermal											
										Sum of Cancer Risk from Dermal Contact	NA
										Total Cancer Risk	4.6E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.4.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Adults (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	7.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.1E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.7E-08
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	4.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	2.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	1.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	2.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	7.2E-10	mg/kg-day	0.055	(mg/kg/day)-1	4.0E-11
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.3E-09	mg/kg-day	1.6	(mg/kg/day)-1	5.2E-09
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.3E-09	mg/kg-day	0.73	(mg/kg/day)-1	9.6E-10
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	9.1E-09
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	1.9E-09	mg/kg-day	0.73	(mg/kg/day)-1	1.4E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	3.9E-10	mg/kg-day	7.3	(mg/kg/day)-1	2.8E-09
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	3.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	3.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	2.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	6.9E-10	mg/kg-day	1	(mg/kg/day)-1	6.9E-10
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	1.6E-14	mg/kg-day	150000	(mg/kg/day)-1	2.4E-09
										Sum of Cancer Risk from Ingestion	6.9E-08

Table 8.4.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.59E-08	mg/kg-day	1.5	(mg/kg/day)-1	2.4E-08
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	2.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.6E-09	mg/kg-day	1.6	(mg/kg/day)-1	8.9E-09
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.9E-09	mg/kg-day	0.73	(mg/kg/day)-1	2.1E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.8E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.0E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	4.3E-09	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	8.6E-10	mg/kg-day	7.3	(mg/kg/day)-1	6.3E-09
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	7.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	7.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	6.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	1.7E-09	mg/kg-day	1	(mg/kg/day)-1	1.7E-09
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	8.1E-15	mg/kg-day	150000	(mg/kg/day)-1	1.2E-09
										Sum of Cancer Risk from Dermal Contact	6.8E-08
										Total Cancer Risks	1.4E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.5.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Young Children (less than 6)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	4.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.9E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.9E-07
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	7.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	1.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	1.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	2.9E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	1.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	9.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	1.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	4.5E-09	mg/kg-day	0.055	(mg/kg/day)-1	2.5E-10
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.0E-08	mg/kg-day	1.6	(mg/kg/day)-1	3.3E-08
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	8.2E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.0E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	7.8E-09	mg/kg-day	7.3	(mg/kg/day)-1	5.7E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.7E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	2.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.8E-08
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	1.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	1.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	4.3E-09	mg/kg-day	1	(mg/kg/day)-1	4.3E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-	2.0E-06	mg/kg	2.0E-06	mg/kg	M	9.8E-14	mg/kg-day	150000	(mg/kg/day)-1	1.5E-08
										Sum of Cancer Risk from Ingestion	4.3E-07

Table 8.5.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.2E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.9E-08
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	5.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	1.1E-08	mg/kg-day	1.6	(mg/kg/day)-1	1.8E-08
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	5.9E-09	mg/kg-day	0.73	(mg/kg/day)-1	4.3E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	5.7E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.1E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	8.7E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.3E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	1.8E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.3E-08
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	3.4E-09	mg/kg-day	1	(mg/kg/day)-1	3.4E-09
	PCDD/Fs										
	TEQ as 2,3,7,8-	2.0E-06	mg/kg	2.0E-06	mg/kg	M	1.6E-14	mg/kg-day	150000	(mg/kg/day)-1	2.5E-09
										Sum of Cancer Risk from Dermal Contact	1.4E-07
										Total Cancer Risks	5.7E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.6.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Lake Sediments
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	5.1E-08	mg/kg-day	1.5	(mg/kg/day)-1	7.6E-08
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	2.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	2.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	4.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	7.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	3.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	2.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	2.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	3.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	1.2E-09	mg/kg-day	0.055	(mg/kg/day)-1	6.4E-11
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.3E-09	mg/kg-day	1.6	(mg/kg/day)-1	8.5E-09
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.1E-09	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.0E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.5E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	3.1E-09	mg/kg-day	0.73	(mg/kg/day)-1	2.3E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	6.3E-10	mg/kg-day	7.3	(mg/kg/day)-1	4.6E-09
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	5.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	5.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	4.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	1.1E-09	mg/kg-day	1	(mg/kg/day)-1	1.1E-09
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	2.6E-14	mg/kg-day	150000	(mg/kg/day)-1	3.8E-09
										Sum of Cancer Risk from Ingestion	1.1E-07

Table 8.6.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.20E+00	mg/kg	9.20E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.86E+00	mg/kg	3.86E+00	mg/kg	M	3.3E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.9E-08
	Barium	1.51E+02	mg/kg	1.51E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	5.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	SVOCs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	6.0E-09	mg/kg-day	0.73	(mg/kg/day)-1	4.4E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	5.7E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.2E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	8.7E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.4E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	1.8E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.3E-08
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	1.1E-08	mg/kg-day	1.6	(mg/kg/day)-1	1.8E-08
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	3.4E-09	mg/kg-day	1	(mg/kg/day)-1	3.4E-09
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	1.7E-14	mg/kg-day	150000	(mg/kg/day)-1	2.5E-09
										Sum of Cancer Risk from Dermal Contact	1.4E-07
										Total Cancer Risks	2.5E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.7.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Lake Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	3.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.4E-08	mg/kg-day	1.5	(mg/kg/day)-1	2.1E-08
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	5.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	7.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	2.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	1.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	7.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	7.3E-12	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	1.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	3.3E-10	mg/kg-day	0.055	(mg/kg/day)-1	1.8E-11
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	1.5E-09	mg/kg-day	1.6	(mg/kg/day)-1	2.4E-09
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	6.0E-10	mg/kg-day	0.73	(mg/kg/day)-1	4.4E-10
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	5.7E-10	mg/kg-day	7.3	(mg/kg/day)-1	4.2E-09
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	8.8E-10	mg/kg-day	0.73	(mg/kg/day)-1	6.4E-10
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	1.8E-10	mg/kg-day	7.3	(mg/kg/day)-1	1.3E-09
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	1.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	1.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	3.2E-10	mg/kg-day	1	(mg/kg/day)-1	3.2E-10
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	7.2E-15	mg/kg-day	150000	(mg/kg/day)-1	1.1E-09
										Sum of Cancer Risk from Ingestion	3.2E-08
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.7.CT
Calculation of Cancer Hazards
Central Tendency
North Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.5E-09	mg/kg-day	1.5	(mg/kg/day)-1	2.2E-09
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	2.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.2E-10	mg/kg-day	1.6	(mg/kg/day)-1	8.3E-10
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.7E-10	mg/kg-day	0.73	(mg/kg/day)-1	2.0E-10
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.6E-10	mg/kg-day	7.3	(mg/kg/day)-1	1.9E-09
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	3.9E-10	mg/kg-day	0.73	(mg/kg/day)-1	2.9E-10
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	8.0E-11	mg/kg-day	7.3	(mg/kg/day)-1	5.8E-10
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	6.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	7.4E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	6.2E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	1.5E-10	mg/kg-day	1	(mg/kg/day)-1	1.5E-10
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	7.5E-16	mg/kg-day	150000	(mg/kg/day)-1	1.1E-10
										Sum of Cancer Risk from Dermal Contact	6.3E-09
										Total Cancer Risks	3.8E-08

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.8.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Adults (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Dermal Absorption Factor[b]	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**											
	Aluminum	4.1E+03	mg/kg		4.1E+03	mg/kg	M	5.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg		3.0E+00	mg/kg	M	3.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg		1.2E+01	mg/kg	M	1.6E-08	mg/kg-day	1.5	(mg/kg/day)-1	2.3E-08
	Barium	9.0E+02	mg/kg		9.0E+02	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg		3.9E+00	mg/kg	M	4.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg		2.0E+02	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg		9.6E+01	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg		1.5E+00	mg/kg	M	1.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg		1.2E+04	mg/kg	M	1.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg		2.3E+02	mg/kg	M	3.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg		2.9E+02	mg/kg	M	3.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg		1.9E+01	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg		2.2E-02	mg/kg	M	2.8E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg		7.3E+01	mg/kg	M	9.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg		4.0E-01	mg/kg	M	5.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg		3.0E+01	mg/kg	M	3.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs											
	Benzene	6.1E+01	mg/kg		6.1E+01	mg/kg	M	7.7E-08	mg/kg-day	0.055	(mg/kg/day)-1	4.2E-09
	Chlorobenzene	1.8E+02	mg/kg		1.8E+02	mg/kg	M	2.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg		8.5E+00	mg/kg	M	1.1E-08	mg/kg-day	0.0075	(mg/kg/day)-1	8.0E-11
	Xylenes	3.3E+02	mg/kg		3.3E+02	mg/kg	M	4.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs											
	1,3-Dichlorobenzene	4.6E+00	mg/kg		4.6E+00	mg/kg	M	5.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg		6.3E+01	mg/kg	M	7.9E-08	mg/kg-day	0.024	(mg/kg/day)-1	1.9E-09
	Dibenzofuran	1.8E+01	mg/kg		1.8E+01	mg/kg	M	2.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg		6.7E+00	mg/kg	M	8.4E-09	mg/kg-day	1.6	(mg/kg/day)-1	1.3E-08
	PAHs											
	2-Methylnaphthalene	1.8E+02	mg/kg		1.8E+02	mg/kg	M	2.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg		4.2E+00	mg/kg	M	5.3E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.8.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Dermal Absorption Factor[b]	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Benz[a]anthracene	9.8E+00	mg/kg		9.8E+00	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	9.0E-09
	Benzo[a]pyrene	7.4E+00	mg/kg		7.4E+00	mg/kg	M	9.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	6.8E-08
	Benzo[b]fluoranthene	9.8E+00	mg/kg		9.8E+00	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	9.0E-09
	Benzo[ghi]perylene	6.4E+00	mg/kg		6.4E+00	mg/kg	M	8.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg		3.6E+00	mg/kg	M	4.5E-09	mg/kg-day	0.073	(mg/kg/day)-1	3.3E-10
	Chrysene	9.6E+00	mg/kg		9.6E+00	mg/kg	M	1.2E-08	mg/kg-day	0.0073	(mg/kg/day)-1	8.8E-11
	Dibenz[a,h]anthracene	1.6E+00	mg/kg		1.6E+00	mg/kg	M	2.1E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.5E-08
	Fluoranthene	3.4E+01	mg/kg		3.4E+01	mg/kg	M	4.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg		3.8E+00	mg/kg	M	4.7E-09	mg/kg-day	0.73	(mg/kg/day)-1	3.5E-09
	Naphthalene	1.1E+03	mg/kg		1.1E+03	mg/kg	M	1.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg		5.3E+01	mg/kg	M	6.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides											
	Dieldrin	8.7E-03	mg/kg		8.7E-03	mg/kg	M	1.1E-11	mg/kg-day	16	(mg/kg/day)-1	1.7E-10
	PCBs							1.3E-09				
	Aroclor 1221	8.1E-02	mg/kg		8.1E-02	mg/kg	M	1.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg		3.5E-01	mg/kg	M	4.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg		2.3E-01	mg/kg	M	2.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg		1.4E-01	mg/kg	M	1.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg		2.0E-01	mg/kg	M	2.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg		1.1E+00	mg/kg	M	1.3E-09	mg/kg-day	1	(mg/kg/day)-1	1.3E-09
	PCDD/PCDFs											
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg		3.8E-04	mg/kg	M	4.7E-13	mg/kg-day	150000	(mg/kg/day)-1	7.1E-08
											Sum of Cancer Risk from Ingestion	2.2E-07
Dermal	**Metals and Organometallic Compounds**											
	Aluminum	4.1E+03	mg/kg	–	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	–	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	3.00E-02	1.2E+01	mg/kg	M	8.0E-09	mg/kg-day	1.5	(mg/kg/day)-1	1.2E-08
	Barium	9.0E+02	mg/kg	–	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	1.00E-03	3.9E+00	mg/kg	M	8.4E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	–	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	–	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	–	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	–	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	–	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	–	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	–	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	–	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.8.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Dermal Absorption Factor[b]	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Nickel	7.3E+01	mg/kg	–	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	–	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	–	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs											
	Benzene	6.1E+01	mg/kg	–	6.1E+01	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	–	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	–	8.5E+00	mg/kg	M	NA	mg/kg-day	0.0075	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	–	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs											
	1,3-Dichlorobenzene	4.6E+00	mg/kg	1.00E-01	4.6E+00	mg/kg	M	1.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	1.00E-01	6.3E+01	mg/kg	M	1.3E-07	mg/kg-day	0.024	(mg/kg/day)-1	3.2E-09
	Dibenzofuran	1.8E+01	mg/kg	1.00E-01	1.8E+01	mg/kg	M	3.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	1.00E-01	6.7E+00	mg/kg	M	1.4E-08	mg/kg-day	1.6	(mg/kg/day)-1	2.3E-08
	PAHs											
	2-Methylnaphthalene	1.8E+02	mg/kg	1.30E-01	1.8E+02	mg/kg	M	4.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	1.30E-01	4.2E+00	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	1.30E-01	9.8E+00	mg/kg	M	2.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.0E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	1.30E-01	7.4E+00	mg/kg	M	2.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.5E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	1.30E-01	9.8E+00	mg/kg	M	2.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.0E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	1.30E-01	6.4E+00	mg/kg	M	1.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	1.30E-01	3.6E+00	mg/kg	M	9.9E-09	mg/kg-day	0.073	(mg/kg/day)-1	7.2E-10
	Chrysene	9.6E+00	mg/kg	1.30E-01	9.6E+00	mg/kg	M	2.7E-08	mg/kg-day	0.0073	(mg/kg/day)-1	2.0E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.30E-01	1.6E+00	mg/kg	M	4.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	3.3E-08
	Fluoranthene	3.4E+01	mg/kg	1.30E-01	3.4E+01	mg/kg	M	9.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	1.30E-01	3.8E+00	mg/kg	M	1.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	7.7E-09
	Naphthalene	1.1E+03	mg/kg	1.30E-01	1.1E+03	mg/kg	M	2.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	1.30E-01	5.3E+01	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides											
	Dieldrin	8.7E-03	mg/kg	–	8.7E-03	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs			1.40E-01								
	Aroclor 1221	8.1E-02	mg/kg	1.40E-01	8.1E-02	mg/kg	M	2.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	1.40E-01	3.5E-01	mg/kg	M	1.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	1.40E-01	2.3E-01	mg/kg	M	6.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.40E-01	1.4E-01	mg/kg	M	4.2E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	1.40E-01	2.0E-01	mg/kg	M	6.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.40E-01	1.1E+00	mg/kg	M	3.2E-09	mg/kg-day	1	(mg/kg/day)-1	3.2E-09

Table 8.8.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Dermal Absorption Factor[b]	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/PCDFs											
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.00E-02	3.8E-04	mg/kg	M	2.4E-13	mg/kg-day	150000	(mg/kg/day)-1	3.6E-08
											Sum of Cancer Risk from Dermal Contact	3.1E-07
											Total Cancer Risk	5.3E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.9.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Young Children (less than 6)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	3.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	9.7E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.5E-07
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	7.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	1.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	7.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	9.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	1.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	2.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	1.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	5.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	3.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	4.8E-07	mg/kg-day	0.055	(mg/kg/day)-1	2.6E-08
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	1.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	6.7E-08	mg/kg-day	0.0075	(mg/kg/day)-1	5.0E-10
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	2.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	3.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	4.9E-07	mg/kg-day	0.024	(mg/kg/day)-1	1.2E-08
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	5.2E-08	mg/kg-day	1.6	(mg/kg/day)-1	8.3E-08
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	1.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	3.3E-08	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.9.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	7.64E-08	mg/kg-day	0.73	(mg/kg/day)-1	5.6E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	5.8E-08	mg/kg-day	7.3	(mg/kg/day)-1	4.2E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	7.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	5.6E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	5.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	2.8E-08	mg/kg-day	0.073	(mg/kg/day)-1	2.0E-09
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	7.5E-08	mg/kg-day	0.0073	(mg/kg/day)-1	5.5E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.3E-08	mg/kg-day	7.3	(mg/kg/day)-1	9.3E-08
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	3.0E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.2E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	8.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	4.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	6.8E-11	mg/kg-day	16	(mg/kg/day)-1	1.1E-09
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	6.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	1.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	1.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	8.3E-09	mg/kg-day	1	(mg/kg/day)-1	8.3E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	2.9E-12	mg/kg-day	150000	(mg/kg/day)-1	4.4E-07
									Sum of Cancer Risk from Ingestion		1.4E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.6E-08	mg/kg-day	1.5	(mg/kg/day)-1	2.4E-08
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.9.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	NA	mg/kg-day	0.0075	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	2.8E-07	mg/kg-day	0.024	(mg/kg/day)-1	6.6E-09
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	7.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	2.9E-08	mg/kg-day	1.6	(mg/kg/day)-1	4.7E-08
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	1.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	PAHs										
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	5.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.1E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	4.2E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.1E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	5.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.1E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	3.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	2.0E-08	mg/kg-day	0.073	(mg/kg/day)-1	1.5E-09
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.5E-08	mg/kg-day	0.0073	(mg/kg/day)-1	4.0E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	9.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	6.8E-08
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	6.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	3.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	5.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	8.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	6.5E-09	mg/kg-day	1	(mg/kg/day)-1	6.5E-09

Table 8.9.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	5.0E-13	mg/kg-day	150000	(mg/kg/day)-1	7.4E-08
										Sum of Cancer Risk from Dermal Contact	6.3E-07
										Total Cancer Risk	2.0E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.10.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	8.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	6.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.5E-08	mg/kg-day	1.5	(mg/kg/day)-1	3.8E-08
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	1.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	8.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	4.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	2.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	2.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	4.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	6.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	3.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	4.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	8.2E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	6.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	1.3E-07	mg/kg-day	0.055	(mg/kg/day)-1	6.9E-09
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	3.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	1.7E-08	mg/kg-day	0.0075	(mg/kg/day)-1	1.3E-10
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	6.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	9.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	1.3E-07	mg/kg-day	0.024	(mg/kg/day)-1	3.1E-09
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	3.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	1.4E-08	mg/kg-day	1.6	(mg/kg/day)-1	2.2E-08
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	3.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	8.7E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.10.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.0E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.5E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	1.5E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.1E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.0E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.5E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	1.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	7.3E-09	mg/kg-day	0.073	(mg/kg/day)-1	5.3E-10
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.0E-08	mg/kg-day	0.0073	(mg/kg/day)-1	1.4E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.4E-08
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	6.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.7E-09	mg/kg-day	0.73	(mg/kg/day)-1	5.6E-09
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	2.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	1.8E-11	mg/kg-day	16	(mg/kg/day)-1	2.8E-10
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	1.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	4.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	2.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	4.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.2E-09	mg/kg-day	1	(mg/kg/day)-1	2.2E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	7.7E-13	mg/kg-day	150000	(mg/kg/day)-1	1.2E-07
										Sum of Cancer Risk from Ingestion	3.6E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.6E-08	mg/kg-day	1.5	(mg/kg/day)-1	2.5E-08
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.10.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	NA	mg/kg-day	0.0075	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	2.8E-07	mg/kg-day	0.024	(mg/kg/day)-1	6.7E-09
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	8.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	2.9E-08	mg/kg-day	1.6	(mg/kg/day)-1	4.7E-08
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	1.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	PAHs										
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	5.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.1E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	4.3E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.1E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	5.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.1E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	3.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	2.0E-08	mg/kg-day	0.073	(mg/kg/day)-1	1.5E-09
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.5E-08	mg/kg-day	0.0073	(mg/kg/day)-1	4.0E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	9.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	6.8E-08
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	6.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	3.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	5.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	8.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	6.6E-09	mg/kg-day	1	(mg/kg/day)-1	6.6E-09

Table 8.10.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	5.0E-13	mg/kg-day	150000	(mg/kg/day)-1	7.5E-08
										Sum of Cancer Risk from Dermal Contact	6.4E-07
										Total Cancer Risk	1.0E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.11.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	1.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.6E-08	mg/kg-day	1.5	(mg/kg/day)-1	6.9E-08
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	3.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	7.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	3.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	5.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	4.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	8.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	7.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	8.3E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	2.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	1.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	2.3E-07	mg/kg-day	0.055	(mg/kg/day)-1	1.2E-08
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	6.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	3.1E-08	mg/kg-day	0.0075	(mg/kg/day)-1	2.4E-10
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	2.3E-07	mg/kg-day	0.024	(mg/kg/day)-1	5.6E-09
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	6.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	2.5E-08	mg/kg-day	1.6	(mg/kg/day)-1	3.9E-08
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	6.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.11.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	3.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.6E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	2.7E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.0E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	3.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.6E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	1.3E-08	mg/kg-day	0.073	(mg/kg/day)-1	9.6E-10
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	3.6E-08	mg/kg-day	0.0073	(mg/kg/day)-1	2.6E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	6.0E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.4E-08
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.0E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	3.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	3.2E-11	mg/kg-day	16	(mg/kg/day)-1	5.1E-10
	PCBs						3.9E-09				
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	3.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	8.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	5.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	7.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	3.9E-09	mg/kg-day	1	(mg/kg/day)-1	3.9E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	1.4E-12	mg/kg-day	150000	(mg/kg/day)-1	2.1E-07
										Sum of Cancer Risk from Ingestion	6.5E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.7E-09	mg/kg-day	1.5	(mg/kg/day)-1	7.1E-09
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	5.0E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.11.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	NA	mg/kg-day	0.0075	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	5.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	8.0E-08	mg/kg-day	0.024	(mg/kg/day)-1	1.9E-09
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	2.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	8.5E-09	mg/kg-day	1.6	(mg/kg/day)-1	1.4E-08
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	2.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PAHs										
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	7.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3	(mg/kg/day)-1	9.0E-08
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	5.9E-09	mg/kg-day	0.073	(mg/kg/day)-1	4.3E-10
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.6E-08	mg/kg-day	0.0073	(mg/kg/day)-1	1.2E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.7E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.0E-08
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	5.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.2E-09	mg/kg-day	0.73	(mg/kg/day)-1	4.6E-09
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	1.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	8.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	1.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.2E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	4.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	2.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	3.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.9E-09	mg/kg-day	1	(mg/kg/day)-1	1.9E-09

Table 8.11.CT
Calculation of Cancer Hazards
Central Tendency
South Basin Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/Fs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	1.4E-13	mg/kg-day	150000	(mg/kg/day)-1	2.2E-08
										Sum of Cancer Risk from Dermal Contact	1.8E-07
										Total Cancer Risk	8.3E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.12.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-6 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	8.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	5.5E-08	mg/kg-day	1.5	(mg/kg/day)-1	8.2E-08
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	6.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	7.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	2.3E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	2.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	3.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	2.0E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.5E-06
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	2.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	2.0E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.5E-07
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	2.5E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.8E-07
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	9.2E-08	mg/kg-day	0.073	(mg/kg/day)-1	6.7E-09
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	3.6E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.6E-07
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.2E-07	mg/kg-day	0.73	(mg/kg/day)-1	8.6E-08
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	3.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	9.3E-14	mg/kg-day	150000	(mg/kg/day)-1	1.4E-08
										Sum of Cancer Risk from Ingestion	2.2E-06

Table 8.12.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-6 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	2.8E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.2E-08
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.5E-07	mg/kg-day	7.3	(mg/kg/day)-1	3.3E-06
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	5.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	7.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.6E-07	mg/kg-day	0.73	(mg/kg/day)-1	3.3E-07
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	5.5E-07	mg/kg-day	0.73	(mg/kg/day)-1	4.0E-07
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	2.0E-07	mg/kg-day	0.073	(mg/kg/day)-1	1.5E-08
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	7.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	5.8E-07
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.6E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.9E-07
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	7.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	4.7E-14	mg/kg-day	150000	(mg/kg/day)-1	7.1E-09
										Sum of Cancer Risk from Dermal Contact	4.8E-06
										Total Cancer Risk	7.1E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.13.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-6 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW- 6 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	1.4E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	8.9E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.3E-07
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	3.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	3.7E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	4.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	4.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	5.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	3.3E-07	mg/kg-day	7.3	(mg/kg/day)-1	2.4E-06
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	4.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	5.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	3.3E-07	mg/kg-day	0.73	(mg/kg/day)-1	2.4E-07
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	4.0E-07	mg/kg-day	0.73	(mg/kg/day)-1	2.9E-07
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.5E-07	mg/kg-day	0.073	(mg/kg/day)-1	1.1E-08
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	5.8E-08	mg/kg-day	7.3	(mg/kg/day)-1	4.2E-07
	Indeno(1,2,3-cd)pyren	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.9E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.4E-07
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	5.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	4.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-	1.1E-05	mg/kg	1.1E-05	mg/kg	M	1.5E-13	mg/kg-day	150000	(mg/kg/day)-1	2.3E-08
										Sum of Cancer Risk from Ingestion	3.7E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	5.8E-08	mg/kg-day	1.5	(mg/kg/day)-1	8.7E-08

Table 8.13.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-6 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	2.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	9.2E-07	mg/kg-day	7.3	(mg/kg/day)-1	6.7E-06
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	9.4E-07	mg/kg-day	0.73	(mg/kg/day)-1	6.8E-07
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	1.1E-06	mg/kg-day	0.73	(mg/kg/day)-1	8.3E-07
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	5.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	4.2E-07	mg/kg-day	0.073	(mg/kg/day)-1	3.1E-08
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	1.6E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.2E-06
	Indeno(1,2,3-cd)pyren	1.5E+01	mg/kg	1.5E+01	mg/kg	M	5.4E-07	mg/kg-day	0.73	(mg/kg/day)-1	3.9E-07
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	1.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-	1.1E-05	mg/kg	1.1E-05	mg/kg	M	9.8E-14	mg/kg-day	150000	(mg/kg/day)-1	1.5E-08
										Sum of Cancer Risk from Dermal Contact	9.9E-06
										Total Cancer Risk	1.4E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.14.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-6 (North Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	3.9E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	2.5E-08	mg/kg-day	1.5	(mg/kg/day)-1	3.8E-08
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	3.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	3.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	1.0E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	1.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	1.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	6.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	9.2E-08	mg/kg-day	7.3	(mg/kg/day)-1	6.7E-07
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	9.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	6.9E-08
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	1.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	8.3E-08
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	5.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	4.2E-08	mg/kg-day	0.073	(mg/kg/day)-1	3.1E-09
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	1.6E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.2E-07
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	5.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.0E-08
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	4.2E-14	mg/kg-day	150000	(mg/kg/day)-1	6.4E-09
										Sum of Cancer Risk from Ingestion	1.0E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.14.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-6 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	2.6E-09	mg/kg-day	1.5	(mg/kg/day)-1	3.9E-09
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.0E-07
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	5.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	6.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-08
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	5.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.7E-08
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.9E-08	mg/kg-day	0.073	(mg/kg/day)-1	1.4E-09
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	7.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	5.4E-08
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.8E-08
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	7.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	4.4E-15	mg/kg-day	150000	(mg/kg/day)-1	6.6E-10
										Sum of Cancer Risk from Dermal Contact	4.5E-07
										Total Cancer Risk	1.5E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.15.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-10 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	7.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	4.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	9.4E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.4E-07
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	2.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	1.3E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	3.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	1.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	2.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	8.3E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.0E-09
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	8.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	6.3E-08
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	7.2E-09	mg/kg-day	0.73	(mg/kg/day)-1	5.2E-09
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	2.1E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.5E-08
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	5.3E-09	mg/kg-day	0.73	(mg/kg/day)-1	3.8E-09
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	1.8E-09	mg/kg-day	1	(mg/kg/day)-1	1.8E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	9.5E-14	mg/kg-day	150000	(mg/kg/day)-1	1.4E-08
										Sum of Cancer Risk from Ingestion	2.5E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.8E-08	mg/kg-day	1.5	(mg/kg/day)-1	7.3E-08
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.15.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-10 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.3E-08
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.4E-07
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	1.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-08
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	4.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	3.3E-08
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.6E-09
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	3.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	4.4E-09	mg/kg-day	1	(mg/kg/day)-1	4.4E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	4.9E-14	mg/kg-day	150000	(mg/kg/day)-1	7.3E-09
										Sum of Cancer Risk from Dermal Contact	2.9E-07
										Total Cancer Risk	5.4E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.16.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-10 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	1.2E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	6.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.5E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.3E-07
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	4.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	2.1E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	5.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	3.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	3.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	3.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	9.8E-09
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.4E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.0E-07
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.5E-09
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	3.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.4E-08
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	8.6E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.3E-09
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	2.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	3.0E-09	mg/kg-day	1	(mg/kg/day)-1	3.0E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	1.5E-13	mg/kg-day	150000	(mg/kg/day)-1	2.3E-08
										Sum of Cancer Risk from Ingestion	4.1E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.0E-07	mg/kg-day	1.5	(mg/kg/day)-1	1.5E-07
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.16.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-10 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	3.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.8E-08
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	3.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.9E-07
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	3.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.4E-08
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	9.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	6.8E-08
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	2.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.8E-08
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	8.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	9.1E-09	mg/kg-day	1	(mg/kg/day)-1	9.1E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	1.0E-13	mg/kg-day	150000	(mg/kg/day)-1	1.5E-08
										Sum of Cancer Risk from Dermal Contact	6.0E-07
										Total Cancer Risk	1.0E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.17.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-10 (North Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Construction worker

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	3.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	1.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.3E-08	mg/kg-day	1.5	(mg/kg/day)-1	6.5E-08
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	5.9E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	1.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	8.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	1.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	3.8E-09	mg/kg-day	0.73	(mg/kg/day)-1	2.8E-09
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	3.9E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.9E-08
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	3.3E-09	mg/kg-day	0.73	(mg/kg/day)-1	2.4E-09
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	9.4E-10	mg/kg-day	7.3	(mg/kg/day)-1	6.9E-09
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	2.4E-09	mg/kg-day	0.73	(mg/kg/day)-1	1.8E-09
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	7.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	8.4E-10	mg/kg-day	1	(mg/kg/day)-1	8.4E-10
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	4.4E-14	mg/kg-day	150000	(mg/kg/day)-1	6.5E-09
										Sum of Cancer Risk from Ingestion	1.1E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.5E-09	mg/kg-day	1.5	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.17.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-10 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day		(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day		(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.7E-09	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-09
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.8E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.3E-08
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	1.5E-09	mg/kg-day	0.73	(mg/kg/day)-1	1.1E-09
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	4.2E-10	mg/kg-day	7.3	(mg/kg/day)-1	3.1E-09
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	1.1E-09	mg/kg-day	0.73	(mg/kg/day)-1	7.9E-10
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	3.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	4.1E-10	mg/kg-day	1	(mg/kg/day)-1	4.1E-10
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	4.5E-15	mg/kg-day	150000	(mg/kg/day)-1	6.8E-10
										Sum of Cancer Risk from Dermal Contact	2.0E-08
										Total Cancer Risk	1.4E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.18.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-12 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	1.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	7.9E-09	mg/kg-day	1.5	(mg/kg/day)-1	1.2E-08
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	5.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	3.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	3.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	1.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	2.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	3.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	8.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	3.0E+00	mg/kg	3.0E+00	mg/kg	M	3.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	3.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	3.8E-11	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	5.8E-09	mg/kg-day	0.73	(mg/kg/day)-1	4.3E-09
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	5.7E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.2E-08
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	4.0E-09	mg/kg-day	0.73	(mg/kg/day)-1	2.9E-09
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	2.1E-10	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-09
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	3.8E-09	mg/kg-day	0.73	(mg/kg/day)-1	2.8E-09
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	9.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	3.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	5.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	2.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	1.2E-09	mg/kg-day	1	(mg/kg/day)-1	1.2E-09
										Sum of Cancer Risk from Ingestion	6.6E-08
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	4.1E-09	mg/kg-day	1.5	(mg/kg/day)-1	6.1E-09

Table 8.18.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-12 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	8.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	1.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	9.5E-09
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.3E-08	mg/kg-day	7.3	(mg/kg/day)-1	9.3E-08
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	8.8E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.4E-09
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	4.8E-10	mg/kg-day	7.3	(mg/kg/day)-1	3.5E-09
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	8.5E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.2E-09
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	2.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	8.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	1.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	6.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	2.8E-09	mg/kg-day	1	(mg/kg/day)-1	2.8E-09
										Sum of Cancer Risk from Dermal Contact	1.3E-07
										Total Cancer Risk	1.9E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.19.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-12 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	1.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	1.3E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.9E-08
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	8.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	6.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	5.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	1.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	3.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	5.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)										
	Methylmercury										
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	9.5E-09	mg/kg-day	0.73	(mg/kg/day)-1	7.0E-09
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	9.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	6.8E-08
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.5E-09	mg/kg-day	0.73	(mg/kg/day)-1	4.7E-09
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	3.5E-10	mg/kg-day	7.3	(mg/kg/day)-1	2.5E-09
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	6.2E-09	mg/kg-day	0.73	(mg/kg/day)-1	4.6E-09
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	8.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	4.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	1.9E-09	mg/kg-day	1	(mg/kg/day)-1	1.9E-09
										Sum of Cancer Risk from Ingestion	1.1E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	8.4E-09	mg/kg-day	1.5	(mg/kg/day)-1	1.3E-08
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	1.8E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.19.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-12 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	2.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.0E-08
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.9E-07
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.3E-08
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	9.8E-10	mg/kg-day	7.3	(mg/kg/day)-1	7.1E-09
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	1.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.3E-08
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	4.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	2.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	5.7E-09	mg/kg-day	1	(mg/kg/day)-1	5.7E-09
										Sum of Cancer Risk from Dermal Contact	2.6E-07
										Total Cancer Risk	3.7E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.20.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-12 (South Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	3.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	2.3E-08	mg/kg-day	1.5	(mg/kg/day)-1	3.5E-08
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	9.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	3.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	6.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	9.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	2.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	1.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	1.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.3E-08
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.7E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.2E-07
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.5E-09
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	6.3E-10	mg/kg-day	7.3	(mg/kg/day)-1	4.6E-09
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	1.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.2E-09
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	2.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	8.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	3.4E-09	mg/kg-day	1	(mg/kg/day)-1	3.4E-09
										Sum of Cancer Risk from Ingestion	1.9E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	2.4E-09	mg/kg-day	1.5	(mg/kg/day)-1	3.6E-09
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	5.2E-10	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.20.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-12 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	7.7E-09	mg/kg-day	0.73	(mg/kg/day)-1	5.6E-09
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	7.5E-09	mg/kg-day	7.3	(mg/kg/day)-1	5.5E-08
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.2E-09	mg/kg-day	0.73	(mg/kg/day)-1	3.8E-09
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	2.8E-10	mg/kg-day	7.3	(mg/kg/day)-1	2.1E-09
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	5.1E-09	mg/kg-day	0.73	(mg/kg/day)-1	3.7E-09
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	7.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	3.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	1.6E-09	mg/kg-day	1	(mg/kg/day)-1	1.6E-09
										Sum of Cancer Risk from Dermal Contact	7.5E-08
										Total Cancer Risk	2.7E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.21.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-19 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	4.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.1E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.6E-08
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	6.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	3.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	8.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	1.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	3.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	5.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	5.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	4.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	1.1E-08	mg/kg-day	0.024	(mg/kg/day)-1	2.7E-10
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	3.5E-09	mg/kg-day	1.6	(mg/kg/day)-1	5.6E-09
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.0E-08
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	1.3E-08	mg/kg-day	7.3	(mg/kg/day)-1	9.6E-08
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	1.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.3E-09
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	7.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.0E-08	mg/kg-day	0.073	(mg/kg/day)-1	7.3E-10
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	3.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.4E-08
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	7.5E-09	mg/kg-day	0.73	(mg/kg/day)-1	5.5E-09
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	2.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	4.9E-11	mg/kg-day	17	(mg/kg/day)-1	8.3E-10
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	3.7E-11	mg/kg-day	16	(mg/kg/day)-1	5.9E-10
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	8.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	7.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	4.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	1.7E-09	mg/kg-day	1	(mg/kg/day)-1	1.7E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	1.1E-12	mg/kg-day	150000	(mg/kg/day)-1	1.7E-07
										Sum of Cancer Risk from Ingestion	3.4E-07

Table 8.21.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	5.5E-09	mg/kg-day	1.5	(mg/kg/day)-1	8.3E-09
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	6.3E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	8.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	1.9E-08	mg/kg-day	0.024	(mg/kg/day)-1	4.6E-10
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	6.0E-09	mg/kg-day	1.6	(mg/kg/day)-1	9.6E-09
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	3.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.3E-08
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	2.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.1E-07
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	2.5E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.8E-08
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	2.2E-08	mg/kg-day	0.073	(mg/kg/day)-1	1.6E-09
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	7.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	5.4E-08
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-08
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	4.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	NA	mg/kg-day	17	(mg/kg/day)-1	
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	1.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	9.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	4.0E-09	mg/kg-day	1	(mg/kg/day)-1	4.0E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	5.7E-13	mg/kg-day	150000	(mg/kg/day)-1	8.5E-08
										Sum of Cancer Risk from Dermal Contact	4.3E-07
										Total Cancer Risk	7.7E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.22.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-19 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	6.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.8E-08	mg/kg-day	1.5	(mg/kg/day)-1	2.6E-08
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	1.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	6.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	2.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	6.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	8.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	8.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	1.8E-08	mg/kg-day	0.024	(mg/kg/day)-1	4.4E-10
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	5.7E-09	mg/kg-day	1.6	(mg/kg/day)-1	9.1E-09
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	2.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.7E-08
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	2.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-07
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	1.9E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.4E-08
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.6E-08	mg/kg-day	0.073	(mg/kg/day)-1	1.2E-09
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	5.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.0E-08
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	9.0E-09
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	3.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	7.9E-11	mg/kg-day	17	(mg/kg/day)-1	1.3E-09
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	6.0E-11	mg/kg-day	16	(mg/kg/day)-1	9.6E-10
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	1.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	6.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.7E-09	mg/kg-day	1	(mg/kg/day)-1	2.7E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	1.8E-12	mg/kg-day	150000	(mg/kg/day)-1	2.7E-07
										Sum of Cancer Risk from Ingestion	5.5E-07

Table 8.22.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.1E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.7E-08
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	3.9E-08	mg/kg-day	0.024	(mg/kg/day)-1	9.4E-10
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.2E-08	mg/kg-day	1.6	(mg/kg/day)-1	2.0E-08
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	6.5E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.8E-08
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	6.0E-08	mg/kg-day	7.3	(mg/kg/day)-1	4.4E-07
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	5.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.8E-08
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	3.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	4.6E-08	mg/kg-day	0.073	(mg/kg/day)-1	3.3E-09
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	1.5E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.1E-07
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.5E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.5E-08
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	9.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	NA	mg/kg-day	17	(mg/kg/day)-1	
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	4.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	3.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	1.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	8.3E-09	mg/kg-day	1	(mg/kg/day)-1	8.3E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	1.2E-12	mg/kg-day	150000	(mg/kg/day)-1	1.8E-07
										Sum of Cancer Risk from Dermal Contact	8.8E-07
										Total Cancer Risk	1.4E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.23.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-19 (South Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	3.2E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.7E-08
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	1.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	3.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	1.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	3.3E-08	mg/kg-day	0.024	(mg/kg/day)-1	7.9E-10
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.0E-08	mg/kg-day	1.6	(mg/kg/day)-1	1.6E-08
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	4.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-08
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	3.8E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.8E-07
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	3.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.4E-08
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	2.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	2.9E-08	mg/kg-day	0.073	(mg/kg/day)-1	2.1E-09
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	9.8E-09	mg/kg-day	7.3	(mg/kg/day)-1	7.1E-08
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-08
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	6.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	1.4E-10	mg/kg-day	17	(mg/kg/day)-1	2.4E-09
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	1.1E-10	mg/kg-day	16	(mg/kg/day)-1	1.7E-09
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	2.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	2.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	1.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	4.9E-09	mg/kg-day	1	(mg/kg/day)-1	4.9E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	3.3E-12	mg/kg-day	150000	(mg/kg/day)-1	4.9E-07
										Sum of Cancer Risk from Ingestion	9.9E-07

Table 8.23.CT
Calculation of Cancer Hazards
Central Tendency
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	3.3E-09	mg/kg-day	1.5	(mg/kg/day)-1	4.9E-09
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	3.8E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	4.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	1.1E-08	mg/kg-day	0.024	(mg/kg/day)-1	2.7E-10
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	3.5E-09	mg/kg-day	1.6	(mg/kg/day)-1	5.7E-09
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.9E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.4E-08
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	1.7E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.3E-07
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	1.5E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.1E-08
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	9.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.3E-08	mg/kg-day	0.073	(mg/kg/day)-1	9.6E-10
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	4.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	3.2E-08
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.9E-09	mg/kg-day	0.73	(mg/kg/day)-1	7.3E-09
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	2.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	NA	mg/kg-day	17	(mg/kg/day)-1	
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	1.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	5.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.4E-09	mg/kg-day	1	(mg/kg/day)-1	2.4E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	3.4E-13	mg/kg-day	150000	(mg/kg/day)-1	5.1E-08
										Sum of Cancer Risk from Dermal Contact	2.5E-07
										Total Cancer Risk	1.2E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.24.CT
Calculation of Cancer Hazards
Central Tendency
Dredge Spoil Soils, Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	9.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	6.8E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.0E-07
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	2.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	1.4E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	3.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.3E-09	mg/kg-day	1.6	(mg/kg/day)-1	5.3E-09
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	1.0E-09	mg/kg-day	7.3	(mg/kg/day)-1	7.6E-09
										Sum of Cancer Risk from Ingestion	1.1E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	3.5E-08	mg/kg-day	1.5	(mg/kg/day)-1	5.2E-08
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.6E-09	mg/kg-day	1.6	(mg/kg/day)-1	9.0E-09
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	2.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.7E-08
										Sum of Cancer Risk from Dermal Contact	7.8E-08
										Total Cancer Risk	1.9E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.25.CT
Calculation of Cancer Hazards
Central Tendency
Dredge Spoil Soils, Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	1.6E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	1.1E-07	mg/kg-day	1.5	(mg/kg/day)-1	1.7E-07
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	3.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	2.2E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	4.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	5.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.4E-09	mg/kg-day	1.6	(mg/kg/day)-1	8.6E-09
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	1.7E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.2E-08
										Sum of Cancer Risk from Ingestion	1.9E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	7.1E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.1E-07
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	1.2E-08	mg/kg-day	1.6	(mg/kg/day)-1	1.9E-08
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	4.8E-09	mg/kg-day	7.3	(mg/kg/day)-1	3.5E-08
										Sum of Cancer Risk from Dermal Contact	1.6E-07
										Total Cancer Risk	3.5E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.26.CT
Calculation of Cancer Hazards
Central Tendency
Dredge Spoil Soils, Onondaga Lake

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	4.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	3.1E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.6E-08
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	6.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	1.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	1.5E-09	mg/kg-day	1.6	(mg/kg/day)-1	2.4E-09
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	4.8E-10	mg/kg-day	7.3	(mg/kg/day)-1	3.5E-09
										Sum of Cancer Risk from Ingestion	5.2E-08
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	3.2E-09	mg/kg-day	1.5	(mg/kg/day)-1	4.8E-09
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.2E-10	mg/kg-day	1.6	(mg/kg/day)-1	8.4E-10
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	2.2E-10	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-09
										Sum of Cancer Risk from Dermal Contact	7.2E-09
										Total Cancer Risk	6.0E-08

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.27.CT
Calculation of Cancer Hazards
Central Tendency
Dredge Spoil Soils (0-11.7 ft), Onondaga Lake

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-11.7 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.0E+04	mg/kg	1.0E+04	mg/kg	M	3.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.7E+00	mg/kg	8.7E+00	mg/kg	M	3.2E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.8E-08
	Cadmium	9.7E-01	mg/kg	9.7E-01	mg/kg	M	3.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.6E+01	mg/kg	2.6E+01	mg/kg	M	9.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.4E-01	mg/kg	8.4E-01	mg/kg	M	3.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.5E+04	mg/kg	1.5E+04	mg/kg	M	5.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.8E+02	mg/kg	3.8E+02	mg/kg	M	1.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.9E-01	mg/kg	4.9E-01	mg/kg	M	1.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.8E+01	mg/kg	4.8E+01	mg/kg	M	1.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	Hexachlorobenzene	2.3E-01	mg/kg	2.3E-01	mg/kg	M	8.3E-10	mg/kg-day	1.6	(mg/kg/day)-1	1.3E-09
	PAHs										
	Benz(a)anthracene	2.5E+00	mg/kg	2.5E+00	mg/kg	M	9.2E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.7E-09
	Benzo(a)pyrene	2.6E+00	mg/kg	2.6E+00	mg/kg	M	9.7E-09	mg/kg-day	7.3	(mg/kg/day)-1	7.1E-08
	Benzo(b)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	8.4E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.1E-09
	Benzo(g,h,i)perylene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	4.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	8.5E-09	mg/kg-day	0.073	(mg/kg/day)-1	6.2E-10
	Dibenz(a,h)anthracene	6.1E-01	mg/kg	6.1E-01	mg/kg	M	2.2E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-08
	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	4.8E-09	mg/kg-day	0.73	(mg/kg/day)-1	3.5E-09
	Naphthalene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	1.2E+00	mg/kg	1.2E+00	mg/kg	M	4.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	2.1E-01	mg/kg	2.1E-01	mg/kg	M	7.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.6E-01	mg/kg	3.6E-01	mg/kg	M	1.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	6.3E-01	mg/kg	6.3E-01	mg/kg	M	2.3E-09	mg/kg-day	1	(mg/kg/day)-1	2.3E-09

Table 8.27.CT
Calculation of Cancer Hazards
Central Tendency
Dredge Spoil Soils (0-11.7 ft), Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/PCDFS										
	TEQ as 2,3,7,8-TCDD	4.4E-05	mg/kg	4.4E-05	mg/kg	M	1.6E-13	mg/kg-day	150000	(mg/kg/day)-1	2.4E-08
										Sum of Cancer Risk from Ingestion	1.8E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.7E+00	mg/kg	8.7E+00	mg/kg	M	3.3E-09	mg/kg-day	1.5	(mg/kg/day)-1	5.0E-09
	Cadmium	9.7E-01	mg/kg	9.7E-01	mg/kg	M	1.2E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.6E+01	mg/kg	2.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.4E-01	mg/kg	8.4E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.5E+04	mg/kg	1.5E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.8E+02	mg/kg	3.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.9E-01	mg/kg	4.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.8E+01	mg/kg	4.8E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	Hexachlorobenzene	2.3E-01	mg/kg	2.3E-01	mg/kg	M	2.9E-10	mg/kg-day	1.6	(mg/kg/day)-1	4.6E-10
	PAHs										
	Benz(a)anthracene	2.5E+00	mg/kg	2.5E+00	mg/kg	M	4.1E-09	mg/kg-day	0.73	(mg/kg/day)-1	3.0E-09
	Benzo(a)pyrene	2.6E+00	mg/kg	2.6E+00	mg/kg	M	4.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	3.2E-08
	Benzo(b)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	3.8E-09	mg/kg-day	0.73	(mg/kg/day)-1	2.8E-09
	Benzo(g,h,i)perylene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	3.8E-09	mg/kg-day	0.073	(mg/kg/day)-1	2.8E-10
	Dibenz(a,h)anthracene	6.1E-01	mg/kg	6.1E-01	mg/kg	M	1.0E-09	mg/kg-day	7.3	(mg/kg/day)-1	7.4E-09
	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.1E-09	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-09
	Naphthalene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	4.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	1.2E+00	mg/kg	1.2E+00	mg/kg	M	2.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	2.1E-01	mg/kg	2.1E-01	mg/kg	M	3.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.6E-01	mg/kg	3.6E-01	mg/kg	M	6.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	6.3E-01	mg/kg	6.3E-01	mg/kg	M	1.1E-09	mg/kg-day	1	(mg/kg/day)-1	1.1E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	4.4E-05	mg/kg	4.4E-05	mg/kg	M	1.7E-14	mg/kg-day	150000	(mg/kg/day)-1	2.5E-09
										Sum of Cancer Risk from Dermal Contact	5.6E-08
										Total of Cancer Risk	2.4E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.28.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	8.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	1.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	6.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	6.7E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	1.1E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	4.8E-09	mg/kg-day	0.055	(mg/kg/day)-1	2.6E-10
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	1.9E-09	mg/kg-day	0.062	(mg/kg/day)-1	1.2E-10
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	5.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	5.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	4.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	4.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	4.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	5.0E-09	mg/kg-day	0.024	(mg/kg/day)-1	1.2E-10
										Sum of Cancer Risk from Ingestion	5.0E-10
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	3.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	2.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	3.9E-12	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	2.4E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	4.0E-08	mg/kg-day	0.055	(mg/kg/day)-1	2.2E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	8.8E-09	mg/kg-day	0.062	(mg/kg/day)-1	5.5E-10
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	9.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	2.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	3.2E-07	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.28.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	1.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	2.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	1.9E-07	mg/kg-day	0.024	(mg/kg/day)-1	4.6E-09
										Sum of Cancer Risk from Dermal Contact	7.3E-09
										Total Cancer Risk	7.8E-09

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.29.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Young Children (less than 6)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	2.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	5.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	2.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	2.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	3.3E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	1.5E-08	mg/kg-day	0.055	(mg/kg/day)-1	8.1E-10
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	6.0E-09	mg/kg-day	0.062	(mg/kg/day)-1	3.7E-10
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	1.5E-08	mg/kg-day	0.024	(mg/kg/day)-1	3.7E-10
										Sum of Cancer Risk from Ingestion	1.6E-09
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	3.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	2.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	2.7E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	4.4E-12	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	4.5E-08	mg/kg-day	0.055	(mg/kg/day)-1	2.5E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	1.0E-08	mg/kg-day	0.062	(mg/kg/day)-1	6.2E-10
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	3.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	3.7E-07	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.29.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	2.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	2.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	2.2E-07	mg/kg-day	0.024	(mg/kg/day)-1	5.2E-09
										Sum of Cancer Risk from Dermal Contact	8.3E-09
										Total Cancer Risk	9.9E-09

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.30.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	3.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	1.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	1.7E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	7.7E-09	mg/kg-day	0.055	(mg/kg/day)-1	4.3E-10
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	3.1E-09	mg/kg-day	0.062	(mg/kg/day)-1	2.0E-10
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	8.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	8.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	7.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	7.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	7.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	8.1E-09	mg/kg-day	0.024	(mg/kg/day)-1	1.9E-10
										Sum of Cancer Risk from Ingestion	8.1E-10
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	3.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	2.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	2.8E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	4.5E-12	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	4.7E-08	mg/kg-day	0.055	(mg/kg/day)-1	2.6E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	1.0E-08	mg/kg-day	0.062	(mg/kg/day)-1	6.4E-10
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	3.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	3.8E-07	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.30.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	2.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	2.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	2.2E-07	mg/kg-day	0.024	(mg/kg/day)-1	5.4E-09
										Sum of Cancer Risk from Dermal Contact	8.6E-09
										Total Cancer Risk	9.4E-09

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.31.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	7.4E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	1.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	5.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	5.6E-13	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	8.9E-14	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	4.0E-11	mg/kg-day	0.055	(mg/kg/day)-1	2.2E-12
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	1.6E-11	mg/kg-day	0.062	(mg/kg/day)-1	1.0E-12
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	4.3E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	4.4E-11	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	3.9E-11	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	3.9E-11	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	3.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	4.1E-11	mg/kg-day	0.024	(mg/kg/day)-1	9.9E-13
									Sum of Cancer Risk from Ingestion		4.2E-12
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	3.5E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	1.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	2.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	2.6E-13	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	4.2E-14	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	6.2E-10	mg/kg-day	0.055	(mg/kg/day)-1	3.4E-11
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	1.3E-10	mg/kg-day	0.062	(mg/kg/day)-1	8.0E-12
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	1.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	3.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	5.0E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.31.CT
Calculation of Cancer Hazards
Central Tendency
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	2.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	3.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	2.7E-09	mg/kg-day	0.024	(mg/kg/day)-1	6.5E-11
										Sum of Cancer Risk from Dermal Contact	1.1E-10
										Total Cancer Risk	1.1E-10

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.1.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish Tissue
Receptor Population: Recreational
Receptor Age: Adults (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.9E-01	mg/kg	9.9E-01	mg/kg	M	1.5E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic (inorganic)	8.0E-02	mg/kg	8.0E-02	mg/kg	M	1.2E-05	mg/kg-day	1.5	(mg/kg/day)-1	1.8E-05
	Chromium	5.7E-01	mg/kg	5.7E-01	mg/kg	M	8.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	5.7E+00	mg/kg	5.7E+00	mg/kg	M	8.7E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.2E+00	mg/kg	3.2E+00	mg/kg	M	4.9E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury (as methylmercury)	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.7E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Selenium	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.2E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	6.3E-01	mg/kg	6.3E-01	mg/kg	M	9.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Zinc	4.4E+01	mg/kg	4.4E+01	mg/kg	M	6.7E-03	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	bis(2-ethylhexyl)phthalate	2.3E+00	mg/kg	2.3E+00	mg/kg	M	3.5E-04	mg/kg-day	0.014	(mg/kg/day)-1	4.9E-06
	Hexachlorobenzene	1.3E-02	mg/kg	1.3E-02	mg/kg	M	2.0E-06	mg/kg-day	1.6	(mg/kg/day)-1	3.2E-06
	Pesticides										
	2,4'-DDE	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	4,4'-DDD	1.3E-02	mg/kg	1.3E-02	mg/kg	M	2.0E-06	mg/kg-day	0.24	(mg/kg/day)-1	4.9E-07
	4,4'-DDE	3.4E-02	mg/kg	3.4E-02	mg/kg	M	5.3E-06	mg/kg-day	0.34	(mg/kg/day)-1	1.8E-06
	4,4'-DDT	9.5E-03	mg/kg	9.5E-03	mg/kg	M	1.5E-06	mg/kg-day	0.34	(mg/kg/day)-1	4.9E-07
	Aldrin	2.5E-03	mg/kg	2.5E-03	mg/kg	M	3.9E-07	mg/kg-day	17	(mg/kg/day)-1	6.6E-06
	delta-BHC	2.5E-03	mg/kg	2.5E-03	mg/kg	M	3.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Dieldrin	3.8E-03	mg/kg	3.8E-03	mg/kg	M	5.8E-07	mg/kg-day	16	(mg/kg/day)-1	9.3E-06
	Heptachlor epoxide	4.1E-03	mg/kg	4.1E-03	mg/kg	M	6.3E-07	mg/kg-day	9.1	(mg/kg/day)-1	5.8E-06
	Sum of Chlordanes	9.7E-03	mg/kg	9.7E-03	mg/kg	M	1.5E-06	mg/kg-day	0.35	(mg/kg/day)-1	5.2E-07
	PCBs										
	Aroclor 1016	4.9E-01	mg/kg	4.9E-01	mg/kg	M	7.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	9.6E-01	mg/kg	9.6E-01	mg/kg	M	1.5E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.7E-04	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.1.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclor 1260	7.2E-01	mg/kg	7.2E-01	mg/kg	M	1.1E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclors 1254 & 1260	5.5E-01	mg/kg	5.5E-01	mg/kg	M	8.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.1E-01	mg/kg	9.1E-01	mg/kg	M	1.4E-04	mg/kg-day	2	(mg/kg/day)-1	2.8E-04
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-05	mg/kg	2.0E-05	mg/kg	M	3.0E-09	mg/kg-day	150000	(mg/kg/day)-1	4.5E-04
										Sum of Cancer Risk from Ingestion	7.8E-04
Dermal	NA										
										Sum of Cancer Risk from Dermal	NA
										Total Cancer Risk	7.8E-04

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.2.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish Tissue
Receptor Population: Recreational
Receptor Age: Young Child (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	Route EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.9E-01	mg/kg	9.9E-01	mg/kg	M	4.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic (inorganic)	8.0E-02	mg/kg	8.0E-02	mg/kg	M	3.8E-06	mg/kg-day	1.5	(mg/kg/day)-1	5.7E-06
	Chromium	5.7E-01	mg/kg	5.7E-01	mg/kg	M	2.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	5.7E+00	mg/kg	5.7E+00	mg/kg	M	2.7E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.5E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury (as methylmercury)	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Selenium	1.5E+00	mg/kg	1.5E+00	mg/kg	M	7.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	6.3E-01	mg/kg	6.3E-01	mg/kg	M	3.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Zinc	4.4E+01	mg/kg	4.4E+01	mg/kg	M	2.1E-03	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	bis(2-ethylhexyl)phthalate	2.3E+00	mg/kg	2.3E+00	mg/kg	M	1.1E-04	mg/kg-day	0.014	(mg/kg/day)-1	1.5E-06
	Hexachlorobenzene	1.3E-02	mg/kg	1.3E-02	mg/kg	M	6.2E-07	mg/kg-day	1.6	(mg/kg/day)-1	9.9E-07
	Pesticides										
	2,4'-DDE	4.1E-03	mg/kg	4.1E-03	mg/kg	M	2.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	4,4'-DDD	1.3E-02	mg/kg	1.3E-02	mg/kg	M	6.3E-07	mg/kg-day	0.24	(mg/kg/day)-1	1.5E-07
	4,4'-DDE	3.4E-02	mg/kg	3.4E-02	mg/kg	M	1.6E-06	mg/kg-day	0.34	(mg/kg/day)-1	5.6E-07
	4,4'-DDT	9.5E-03	mg/kg	9.5E-03	mg/kg	M	4.5E-07	mg/kg-day	0.34	(mg/kg/day)-1	1.5E-07
	Aldrin	2.5E-03	mg/kg	2.5E-03	mg/kg	M	1.2E-07	mg/kg-day	17	(mg/kg/day)-1	2.0E-06
	delta-BHC	2.5E-03	mg/kg	2.5E-03	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Dieldrin	3.8E-03	mg/kg	3.8E-03	mg/kg	M	1.8E-07	mg/kg-day	16	(mg/kg/day)-1	2.9E-06
	Heptachlor epoxide	4.1E-03	mg/kg	4.1E-03	mg/kg	M	2.0E-07	mg/kg-day	9.1	(mg/kg/day)-1	1.8E-06
	Sum of Chlordanes	9.7E-03	mg/kg	9.7E-03	mg/kg	M	4.6E-07	mg/kg-day	0.35	(mg/kg/day)-1	1.6E-07
	PCBs										
	Aroclor 1016	4.9E-01	mg/kg	4.9E-01	mg/kg	M	2.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	9.6E-01	mg/kg	9.6E-01	mg/kg	M	4.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.2E-05	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.2.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	Route EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclor 1260	7.2E-01	mg/kg	7.2E-01	mg/kg	M	3.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclors 1254 & 1260	5.5E-01	mg/kg	5.5E-01	mg/kg	M	2.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.1E-01	mg/kg	9.1E-01	mg/kg	M	4.3E-05	mg/kg-day	2	(mg/kg/day)-1	8.7E-05
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-05	mg/kg	2.0E-05	mg/kg	M	9.3E-10	mg/kg-day	150000	(mg/kg/day)-1	1.4E-04
										Sum of Cancer Risk from Ingestion	2.4E-04
Dermal	NA										
										Sum of Cancer Risk from Dermal	NA
										Total Cancer Risk	2.4E-04

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.3.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Fish Tissue
Exposure Medium: Fish Tissue
Exposure Point: Fish Tissue
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.9E-01	mg/kg	9.9E-01	mg/kg	M	6.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic (inorganic)	8.0E-02	mg/kg	8.0E-02	mg/kg	M	5.3E-06	mg/kg-day	1.5	(mg/kg/day)-1	8.0E-06
	Chromium	5.7E-01	mg/kg	5.7E-01	mg/kg	M	3.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	5.7E+00	mg/kg	5.7E+00	mg/kg	M	3.8E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.1E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury (as methylmercury)	1.1E+00	mg/kg	1.1E+00	mg/kg	M	7.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Selenium	1.5E+00	mg/kg	1.5E+00	mg/kg	M	9.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	6.3E-01	mg/kg	6.3E-01	mg/kg	M	4.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Zinc	4.4E+01	mg/kg	4.4E+01	mg/kg	M	2.9E-03	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	bis(2-ethylhexyl)phthalate	2.3E+00	mg/kg	2.3E+00	mg/kg	M	1.5E-04	mg/kg-day	0.014	(mg/kg/day)-1	2.1E-06
	Hexachlorobenzene	1.3E-02	mg/kg	1.3E-02	mg/kg	M	8.6E-07	mg/kg-day	1.6	(mg/kg/day)-1	1.4E-06
	Pesticides										
	2,4'-DDE	4.1E-03	mg/kg	4.1E-03	mg/kg	M	2.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	4,4'-DDD	1.3E-02	mg/kg	1.3E-02	mg/kg	M	8.8E-07	mg/kg-day	0.24	(mg/kg/day)-1	2.1E-07
	4,4'-DDE	3.4E-02	mg/kg	3.4E-02	mg/kg	M	2.3E-06	mg/kg-day	0.34	(mg/kg/day)-1	7.8E-07
	4,4'-DDT	9.5E-03	mg/kg	9.5E-03	mg/kg	M	6.3E-07	mg/kg-day	0.34	(mg/kg/day)-1	2.1E-07
	Aldrin	2.5E-03	mg/kg	2.5E-03	mg/kg	M	1.7E-07	mg/kg-day	17	(mg/kg/day)-1	2.9E-06
	delta-BHC	2.5E-03	mg/kg	2.5E-03	mg/kg	M	1.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Dieldrin	3.8E-03	mg/kg	3.8E-03	mg/kg	M	2.5E-07	mg/kg-day	16	(mg/kg/day)-1	4.1E-06
	Heptachlor epoxide	4.1E-03	mg/kg	4.1E-03	mg/kg	M	2.7E-07	mg/kg-day	9.1	(mg/kg/day)-1	2.5E-06
	Sum of Chlordanes	9.7E-03	mg/kg	9.7E-03	mg/kg	M	6.5E-07	mg/kg-day	0.35	(mg/kg/day)-1	2.3E-07
	PCBs										
	Aroclor 1016	4.9E-01	mg/kg	4.9E-01	mg/kg	M	3.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	9.6E-01	mg/kg	9.6E-01	mg/kg	M	6.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	1.1E+00	mg/kg	1.1E+00	mg/kg	M	7.3E-05	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.3.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclor 1260	7.2E-01	mg/kg	7.2E-01	mg/kg	M	4.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclors 1254 & 1260	5.5E-01	mg/kg	5.5E-01	mg/kg	M	3.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.1E-01	mg/kg	9.1E-01	mg/kg	M	6.1E-05	mg/kg-day	2	(mg/kg/day)-1	1.2E-04
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-05	mg/kg	2.0E-05	mg/kg	M	1.3E-09	mg/kg-day	150000	(mg/kg/day)-1	2.0E-04
										Sum of Cancer Risk from Ingestion	3.4E-04
Dermal	NA										
										Sum of Cancer Risk from Dermal	NA
										Total Cancer Risk	3.4E-04

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.4.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Adults (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	6.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	2.8E-07	mg/kg-day	1.5	(mg/kg/day)-1	4.3E-07
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	1.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	2.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	4.3E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	2.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	1.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	2.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	6.6E-09	mg/kg-day	0.055	(mg/kg/day)-1	3.6E-10
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.0E-08	mg/kg-day	1.6	(mg/kg/day)-1	4.8E-08
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.8E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	8.4E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	1.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.3E-08
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	3.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.6E-08
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	2.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	3.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	2.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	6.4E-09	mg/kg-day	2	(mg/kg/day)-1	1.3E-08

Table 8.4.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	1.4E-13	mg/kg-day	150000	(mg/kg/day)-1	2.2E-08
										Sum of Cancer Risks from Ingestion	6.4E-07
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.5E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.2E-07
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	2.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.1E-08	mg/kg-day	1.6	(mg/kg/day)-1	8.2E-08
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.0E-08
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.6E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.9E-07
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	3.9E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.8E-08
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	7.9E-09	mg/kg-day	7.3	(mg/kg/day)-1	5.8E-08
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	6.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	7.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	6.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	1.5E-08	mg/kg-day	2	(mg/kg/day)-1	3.0E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	7.4E-14	mg/kg-day	150000	(mg/kg/day)-1	1.1E-08
										Sum of Cancer Risks from Dermal Contact	6.3E-07
										Total Cancer Risks	1.3E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.5.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Young Children (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	1.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	5.3E-07	mg/kg-day	1.5	(mg/kg/day)-1	8.0E-07
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	2.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	2.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	4.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	8.0E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	3.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	2.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	4.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	1.2E-08	mg/kg-day	0.055	(mg/kg/day)-1	6.8E-10
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.6E-08	mg/kg-day	1.6	(mg/kg/day)-1	8.9E-08
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-08
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-07
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	3.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.4E-08
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	6.7E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.9E-08
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	5.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	5.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	4.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	1.2E-08	mg/kg-day	2	(mg/kg/day)-1	2.4E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	2.7E-13	mg/kg-day	150000	(mg/kg/day)-1	4.0E-08
										Sum of Cancer Risks from Ingestion	1.2E-06

Table 8.5.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	6.0E-07	mg/kg-day	1.5	(mg/kg/day)-1	9.0E-07
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.1E-07	mg/kg-day	1.6	(mg/kg/day)-1	3.4E-07
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	8.1E-08
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.1E-07	mg/kg-day	7.3	(mg/kg/day)-1	7.7E-07
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	1.6E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-07
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	3.3E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.4E-07
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	3.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	2.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	6.3E-08	mg/kg-day	2	(mg/kg/day)-1	1.3E-07
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	3.1E-13	mg/kg-day	150000	(mg/kg/day)-1	4.6E-08
										Sum of Cancer Risks from Dermal Contact	2.6E-06

Total Cancer Risk 3.8E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.6.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	4.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.9E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.8E-07
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	7.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	9.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	1.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	2.8E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	1.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	9.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	9.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	4.3E-09	mg/kg-day	0.055	(mg/kg/day)-1	2.4E-10
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.0E-08	mg/kg-day	1.6	(mg/kg/day)-1	3.1E-08
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	7.8E-09	mg/kg-day	0.73	(mg/kg/day)-1	5.7E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	7.5E-09	mg/kg-day	7.3	(mg/kg/day)-1	5.5E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	1.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.3E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	2.3E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.7E-08
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	1.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	2.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	1.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	4.1E-09	mg/kg-day	2	(mg/kg/day)-1	8.3E-09

Table 8.6.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	9.4E-14	mg/kg-day	150000	(mg/kg/day)-1	1.4E-08
										Sum of Cancer Risks from Ingestion	4.2E-07
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	8.1E-07	mg/kg-day	1.5	(mg/kg/day)-1	1.2E-06
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.8E-07	mg/kg-day	1.6	(mg/kg/day)-1	4.5E-07
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.5E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.1E-07
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.4E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.0E-06
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	2.2E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-07
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	4.4E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.2E-07
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	3.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	4.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	3.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	8.5E-08	mg/kg-day	2	(mg/kg/day)-1	1.7E-07
	PCDD/PCDFs										
	TEQ Furans	1.6E-06	mg/kg	1.6E-06	mg/kg	M	3.3E-13	mg/kg-day	150000	(mg/kg/day)-1	4.9E-08
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	4.1E-13	mg/kg-day	150000	(mg/kg/day)-1	6.2E-08
										Sum of Cancer Risks from Dermal Contact	3.5E-06
										Total Cancer Risk	3.9E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.7.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: North Basin Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	8.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.6E-08	mg/kg-day	1.50E+00	(mg/kg/day)-1	5.3E-08
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	1.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	1.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	3.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	5.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	2.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	1.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	1.8E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	2.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	8.2E-10	mg/kg-day	5.50E-02	(mg/kg/day)-1	4.5E-11
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.7E-09	mg/kg-day	1.60E+00	(mg/kg/day)-1	6.0E-09
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.5E-09	mg/kg-day	7.30E-01	(mg/kg/day)-1	1.1E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	1.4E-09	mg/kg-day	7.30E+00	(mg/kg/day)-1	1.0E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	2.2E-09	mg/kg-day	7.30E-01	(mg/kg/day)-1	1.6E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	4.5E-10	mg/kg-day	7.30E+00	(mg/kg/day)-1	3.3E-09
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	3.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	3.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	3.2E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	8.0E-10	mg/kg-day	2.00E+00	(mg/kg/day)-1	1.6E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	1.8E-14	mg/kg-day	1.50E+05	(mg/kg/day)-1	2.7E-09
										Sum of Cancer Risks from Ingestion	8.0E-08

Table 8.7.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
North Basin Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Antimony	9.2E+00	mg/kg	9.2E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.7E-08	mg/kg-day	1.50E+00	(mg/kg/day)-1	2.5E-08
	Barium	1.5E+02	mg/kg	1.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	2.0E+00	mg/kg	2.0E+00	mg/kg	M	2.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	5.8E+03	mg/kg	5.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.8E+02	mg/kg	2.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+00	mg/kg	1.9E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.0E-03	mg/kg	2.0E-03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.9E-01	mg/kg	2.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	8.9E-02	mg/kg	8.9E-02	mg/kg	M	NA	mg/kg-day	5.50E-02	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.8E-09	mg/kg-day	1.60E+00	(mg/kg/day)-1	9.3E-09
	PAHs										
	Benz(a)anthracene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	3.0E-09	mg/kg-day	7.30E-01	(mg/kg/day)-1	2.2E-09
	Benzo(a)pyrene	1.6E-01	mg/kg	1.6E-01	mg/kg	M	2.9E-09	mg/kg-day	7.30E+00	(mg/kg/day)-1	2.1E-08
	Benzo(b)fluoranthene	2.4E-01	mg/kg	2.4E-01	mg/kg	M	4.4E-09	mg/kg-day	7.30E-01	(mg/kg/day)-1	3.2E-09
	Dibenz(a,h)anthracene	4.8E-02	mg/kg	4.8E-02	mg/kg	M	9.0E-10	mg/kg-day	7.30E+00	(mg/kg/day)-1	6.6E-09
	Naphthalene	3.9E-01	mg/kg	3.9E-01	mg/kg	M	7.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	4.1E-02	mg/kg	4.1E-02	mg/kg	M	8.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.5E-02	mg/kg	3.5E-02	mg/kg	M	7.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	8.6E-02	mg/kg	8.6E-02	mg/kg	M	1.7E-09	mg/kg-day	2.00E+00	(mg/kg/day)-1	3.5E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	2.0E-06	mg/kg	2.0E-06	mg/kg	M	8.4E-15	mg/kg-day	1.50E+05	(mg/kg/day)-1	1.3E-09
										Sum of Cancer Risks from Dermal Contact	7.2E-08

Total Cancer Risk 1.5E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.8.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	9.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	7.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.9E-07	mg/kg-day	1.5	(mg/kg/day)-1	4.4E-07
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	2.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	9.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	4.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	2.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	2.9E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	5.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	6.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	4.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	5.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	1.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	9.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	7.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	1.4E-06	mg/kg-day	0.1	(mg/kg/day)-1	7.9E-08
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	4.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	2.0E-07	mg/kg-day	0.0	(mg/kg/day)-1	1.5E-09
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	7.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	1.5E-06	mg/kg-day	0.0	(mg/kg/day)-1	3.5E-08
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	4.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	1.6E-07	mg/kg-day	1.6	(mg/kg/day)-1	2.5E-07

Table 8.8.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	4.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	1.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.3E-07	mg/kg-day	0.7	(mg/kg/day)-1	1.7E-07
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.3E-06
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.3E-07	mg/kg-day	0.7	(mg/kg/day)-1	1.7E-07
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	8.3E-08	mg/kg-day	0.1	(mg/kg/day)-1	6.1E-09
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.3E-07	mg/kg-day	0.0	(mg/kg/day)-1	1.6E-09
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.8E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.8E-07
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	7.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	8.9E-08	mg/kg-day	0.7	(mg/kg/day)-1	6.5E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	2.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	2.0E-10	mg/kg-day	16.0	(mg/kg/day)-1	3.3E-09
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	1.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	5.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	3.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	4.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.5E-08	mg/kg-day	2.0	(mg/kg/day)-1	5.0E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	8.8E-12	mg/kg-day	150000.0	(mg/kg/day)-1	1.3E-06
										Sum of Cancer Risks from Ingestion	4.1E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.5E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.2E-07
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.8.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	NA	mg/kg-day	0.1	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	NA	mg/kg-day	0.0	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	2.5E-06	mg/kg-day	0.0	(mg/kg/day)-1	6.0E-08
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	7.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	2.7E-07	mg/kg-day	1.6	(mg/kg/day)-1	4.3E-07
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	9.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	2.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	5.1E-07	mg/kg-day	0.7	(mg/kg/day)-1	3.7E-07
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	3.9E-07	mg/kg-day	7.3	(mg/kg/day)-1	2.8E-06
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	5.1E-07	mg/kg-day	0.7	(mg/kg/day)-1	3.7E-07
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	3.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	1.9E-07	mg/kg-day	0.1	(mg/kg/day)-1	1.4E-08
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.0E-07	mg/kg-day	0.0	(mg/kg/day)-1	3.7E-09
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.5E-08	mg/kg-day	7.3	(mg/kg/day)-1	6.2E-07
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-07	mg/kg-day	0.7	(mg/kg/day)-1	1.4E-07
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	5.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	2.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	NA	mg/kg-day	16.0	(mg/kg/day)-1	
	PCBs						6.0E-08				
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	4.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	1.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	7.8E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.8.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	6.0E-08	mg/kg-day	2.0	(mg/kg/day)-1	1.2E-07
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	4.5E-12	mg/kg-day	150000.0	(mg/kg/day)-1	6.8E-07
										Sum of Cancer Risks from Dermal Contact	5.9E-06

Total Cancer Risk 1.0E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.9.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Young Children (less than 6)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	1.8E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.4E-07	mg/kg-day	1.5	(mg/kg/day)-1	8.1E-07
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	4.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	9.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	4.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	6.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	5.4E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	1.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	1.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	8.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	9.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	3.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	1.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	2.7E-06	mg/kg-day	0.055	(mg/kg/day)-1	1.5E-07
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	7.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	3.7E-07	mg/kg-day	0.0075	(mg/kg/day)-1	2.8E-09
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	1.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	2.8E-06	mg/kg-day	0.024	(mg/kg/day)-1	6.6E-08
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	7.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	2.9E-07	mg/kg-day	1.6	(mg/kg/day)-1	4.7E-07

Table 8.9.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	7.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	4.3E-07	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-07
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	3.2E-07	mg/kg-day	7.3	(mg/kg/day)-1	2.4E-06
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	4.3E-07	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-07
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	2.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	1.6E-07	mg/kg-day	0.073	(mg/kg/day)-1	1.1E-08
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.2E-07	mg/kg-day	0.0073	(mg/kg/day)-1	3.1E-09
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	7.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	5.2E-07
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.7E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-07
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	4.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	2.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	3.8E-10	mg/kg-day	16	(mg/kg/day)-1	6.1E-09
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	3.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	9.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	6.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	8.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	4.7E-08	mg/kg-day	2	(mg/kg/day)-1	9.3E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	1.7E-11	mg/kg-day	150000	(mg/kg/day)-1	2.5E-06
									Sum of Cancer Risks from Ingestion		7.7E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.2E-07	mg/kg-day	1.5	(mg/kg/day)-1	9.2E-07
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	6.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.9.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	NA	mg/kg-day	0.055	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	NA	mg/kg-day	0.0075	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	7.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	1.0E-05	mg/kg-day	0.024	(mg/kg/day)-1	2.5E-07
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	3.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	1.1E-06	mg/kg-day	1.6	(mg/kg/day)-1	1.8E-06
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	3.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	9.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.1E-06	mg/kg-day	0.73	(mg/kg/day)-1	1.5E-06
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	1.6E-06	mg/kg-day	7.3	(mg/kg/day)-1	1.2E-05
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.1E-06	mg/kg-day	0.73	(mg/kg/day)-1	1.5E-06
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	1.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	7.6E-07	mg/kg-day	0.073	(mg/kg/day)-1	5.6E-08
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.1E-06	mg/kg-day	0.0073	(mg/kg/day)-1	1.5E-08
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.5E-07	mg/kg-day	7.3	(mg/kg/day)-1	2.6E-06
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	7.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	8.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	5.9E-07
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	2.3E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	1.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	1.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	5.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	3.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	4.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.5E-07	mg/kg-day	2	(mg/kg/day)-1	4.9E-07
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	1.9E-11	mg/kg-day	150000	(mg/kg/day)-1	2.8E-06
										Sum of Cancer Risks from Dermal Contact	2.4E-05
										Total Cancer Risk	3.2E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.10.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	6.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	4.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.8E-07
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	1.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	6.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	3.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	1.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	1.9E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	3.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	4.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	2.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	3.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	6.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	4.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	9.4E-07	mg/kg-day	0.1	(mg/kg/day)-1	5.2E-08
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	2.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	1.3E-07	mg/kg-day	0.0	(mg/kg/day)-1	9.7E-10
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	5.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	7.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	9.6E-07	mg/kg-day	0.0	(mg/kg/day)-1	2.3E-08
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	2.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	1.0E-07	mg/kg-day	1.6	(mg/kg/day)-1	1.6E-07

Table 8.10.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	2.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	6.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.5E-07	mg/kg-day	0.7	(mg/kg/day)-1	1.1E-07
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3	(mg/kg/day)-1	8.3E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.5E-07	mg/kg-day	0.7	(mg/kg/day)-1	1.1E-07
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	9.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	5.4E-08	mg/kg-day	0.1	(mg/kg/day)-1	4.0E-09
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.5E-07	mg/kg-day	0.0	(mg/kg/day)-1	1.1E-09
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.5E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.8E-07
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	5.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	5.8E-08	mg/kg-day	0.7	(mg/kg/day)-1	4.2E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	1.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	8.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	1.3E-10	mg/kg-day	16.0	(mg/kg/day)-1	2.1E-09
	PCBs						1.6E-08				
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	1.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	3.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	3.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.6E-08	mg/kg-day	2.0	(mg/kg/day)-1	3.2E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	5.8E-12	mg/kg-day	150000.0	(mg/kg/day)-1	8.6E-07
										Sum of Cancer Risks from Ingestion	2.7E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.3E-07	mg/kg-day	1.5	(mg/kg/day)-1	1.2E-06
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	8.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.10.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	NA	mg/kg-day	0.1	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	NA	mg/kg-day	0.0	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	1.4E-05	mg/kg-day	0.0	(mg/kg/day)-1	3.4E-07
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	4.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	1.5E-06	mg/kg-day	1.6	(mg/kg/day)-1	2.4E-06
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	5.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.8E-06	mg/kg-day	0.7	(mg/kg/day)-1	2.1E-06
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	2.1E-06	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-05
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	2.8E-06	mg/kg-day	0.7	(mg/kg/day)-1	2.1E-06
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	1.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	1.0E-06	mg/kg-day	0.1	(mg/kg/day)-1	7.5E-08
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.8E-06	mg/kg-day	0.0	(mg/kg/day)-1	2.0E-08
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	4.7E-07	mg/kg-day	7.3	(mg/kg/day)-1	3.4E-06
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	9.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.1E-06	mg/kg-day	0.7	(mg/kg/day)-1	8.0E-07
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	3.0E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	1.5E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	NA	mg/kg-day	16.0	(mg/kg/day)-1	

Table 8.10.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	2.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	7.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	4.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	6.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	3.3E-07	mg/kg-day	2.0	(mg/kg/day)-1	6.6E-07
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	2.5E-11	mg/kg-day	150000.0	(mg/kg/day)-1	3.8E-06
										Sum of Cancer Risks from Dermal contact	3.3E-05
										Total Cancer Risks	3.5E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.11.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Scenario Timeframe: Future
Medium: Sediments
Exposure Medium: Sediments
Exposure Point: South Basin Sediments
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	3.8E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	2.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5	(mg/kg/day)-1	1.7E-07
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	8.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	1.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	8.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	1.1E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	2.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	2.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	1.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	2.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	6.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	3.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	5.6E-07	mg/kg-day	0.1	(mg/kg/day)-1	3.1E-08
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	1.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	7.8E-08	mg/kg-day	0.0	(mg/kg/day)-1	5.9E-10
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	3.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	4.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	5.8E-07	mg/kg-day	0.0	(mg/kg/day)-1	1.4E-08
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	1.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	6.1E-08	mg/kg-day	1.6	(mg/kg/day)-1	9.8E-08
	PAHs										

Table 8.11.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	1.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	3.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	9.0E-08	mg/kg-day	0.7	(mg/kg/day)-1	6.6E-08
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	6.8E-08	mg/kg-day	7.3	(mg/kg/day)-1	5.0E-07
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	9.1E-08	mg/kg-day	0.7	(mg/kg/day)-1	6.6E-08
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	5.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	3.3E-08	mg/kg-day	0.1	(mg/kg/day)-1	2.4E-09
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	8.9E-08	mg/kg-day	0.0	(mg/kg/day)-1	6.5E-10
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.5E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.1E-07
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	3.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	3.5E-08	mg/kg-day	0.7	(mg/kg/day)-1	2.5E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	9.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	4.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	8.0E-11	mg/kg-day	16.0	(mg/kg/day)-1	1.3E-09
	PCBs						9.8E-09				
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	7.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	3.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	1.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	9.8E-09	mg/kg-day	2.0	(mg/kg/day)-1	2.0E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	3.5E-12	mg/kg-day	150000.0	(mg/kg/day)-1	5.2E-07
									Sum of Cancer Risks from Ingestion		1.6E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	4.1E+03	mg/kg	4.1E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.3E-08	mg/kg-day	1.5	(mg/kg/day)-1	8.0E-08
	Barium	9.0E+02	mg/kg	9.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.9E+00	mg/kg	3.9E+00	mg/kg	M	5.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.0E+02	mg/kg	2.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	9.6E+01	mg/kg	9.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	1.5E+00	mg/kg	1.5E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Lead	2.3E+02	mg/kg	2.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.9E+02	mg/kg	2.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	1.9E+01	mg/kg	1.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.11.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Methylmercury	2.2E-02	mg/kg	2.2E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Nickel	7.3E+01	mg/kg	7.3E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.0E-01	mg/kg	4.0E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Vanadium	3.0E+01	mg/kg	3.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	VOCs										
	Benzene	6.1E+01	mg/kg	6.1E+01	mg/kg	M	NA	mg/kg-day	0.1	(mg/kg/day)-1	
	Chlorobenzene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylene chloride	8.5E+00	mg/kg	8.5E+00	mg/kg	M	NA	mg/kg-day	0.008	(mg/kg/day)-1	
	Xylenes	3.3E+02	mg/kg	3.3E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	6.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.3E+01	mg/kg	6.3E+01	mg/kg	M	9.0E-07	mg/kg-day	0.024	(mg/kg/day)-1	2.2E-08
	Dibenzofuran	1.8E+01	mg/kg	1.8E+01	mg/kg	M	2.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Hexachlorobenzene	6.7E+00	mg/kg	6.7E+00	mg/kg	M	9.6E-08	mg/kg-day	1.6	(mg/kg/day)-1	1.5E-07
	PAHs										
	2-Methylnaphthalene	1.8E+02	mg/kg	1.8E+02	mg/kg	M	3.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	4.2E+00	mg/kg	4.2E+00	mg/kg	M	7.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz[a]anthracene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.8E-07	mg/kg-day	0.7	(mg/kg/day)-1	1.3E-07
	Benzo[a]pyrene	7.4E+00	mg/kg	7.4E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.0E-06
	Benzo[b]fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.8E-07	mg/kg-day	0.7	(mg/kg/day)-1	1.3E-07
	Benzo[ghi]perylene	6.4E+00	mg/kg	6.4E+00	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo[k]fluoranthene	3.6E+00	mg/kg	3.6E+00	mg/kg	M	6.6E-08	mg/kg-day	0.1	(mg/kg/day)-1	4.8E-09
	Chrysene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.8E-07	mg/kg-day	0.0	(mg/kg/day)-1	1.3E-09
	Dibenz[a,h]anthracene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.0E-08	mg/kg-day	7.3	(mg/kg/day)-1	2.2E-07
	Fluoranthene	3.4E+01	mg/kg	3.4E+01	mg/kg	M	6.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Indeno[1,2,3-cd]pyrene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.0E-08	mg/kg-day	0.7	(mg/kg/day)-1	5.1E-08
	Naphthalene	1.1E+03	mg/kg	1.1E+03	mg/kg	M	2.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	5.3E+01	mg/kg	5.3E+01	mg/kg	M	9.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Dieldrin	8.7E-03	mg/kg	8.7E-03	mg/kg	M	NA	mg/kg-day	16.0	(mg/kg/day)-1	
	PCBs										
	Aroclor 1221	8.1E-02	mg/kg	8.1E-02	mg/kg	M	1.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1242	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1248	2.3E-01	mg/kg	2.3E-01	mg/kg	M	4.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	1.4E-01	mg/kg	1.4E-01	mg/kg	M	2.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	4.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.1E-08	mg/kg-day	2.0	(mg/kg/day)-1	4.3E-08

Table 8.11.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
South Basin Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	3.8E-04	mg/kg	3.8E-04	mg/kg	M	1.6E-12	mg/kg-day	150000.0	(mg/kg/day)-1	2.4E-07
										Sum of Cancer Risks from Dermal contact	2.1E-06
										Total Cancer Risks	3.7E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.12.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-6 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	7.9E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	5.0E-07	mg/kg-day	1.50E+00	(mg/kg/day)-1	7.5E-07
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	6.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	6.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	2.1E-03	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	2.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	2.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	3.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	1.8E-06	mg/kg-day	7.30E+00	(mg/kg/day)-1	1.3E-05
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	2.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	2.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	1.9E-06	mg/kg-day	7.30E-01	(mg/kg/day)-1	1.4E-06
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	2.3E-06	mg/kg-day	7.30E-01	(mg/kg/day)-1	1.7E-06
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	8.4E-07	mg/kg-day	7.30E-02	(mg/kg/day)-1	6.1E-08
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	3.3E-07	mg/kg-day	7.30E+00	(mg/kg/day)-1	2.4E-06
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.1E-06	mg/kg-day	7.30E-01	(mg/kg/day)-1	7.9E-07
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	3.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	8.5E-13	mg/kg-day	1.50E+05	(mg/kg/day)-1	1.3E-07
										Sum of Cancer Risk from Ingestion	2.1E-05
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	2.6E-07	mg/kg-day	1.50E+00	(mg/kg/day)-1	3.9E-07

Table 8.12.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-6 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.1E-06	mg/kg-day	7.30E+00	(mg/kg/day)-1	3.0E-05
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	5.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	6.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.2E-06	mg/kg-day	7.30E-01	(mg/kg/day)-1	3.0E-06
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	5.1E-06	mg/kg-day	7.30E-01	(mg/kg/day)-1	3.7E-06
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.9E-06	mg/kg-day	7.30E-02	(mg/kg/day)-1	1.4E-07
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	7.3E-07	mg/kg-day	7.30E+00	(mg/kg/day)-1	5.3E-06
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.4E-06	mg/kg-day	7.30E-01	(mg/kg/day)-1	1.8E-06
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	7.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	4.4E-13	mg/kg-day	1.50E+05	(mg/kg/day)-1	6.5E-08
										Sum of Cancer Risk from Dermal Contact	4.4E-05
										Total Cancer Risk	6.5E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.13.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-6 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	5.1E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	3.3E-07	mg/kg-day	1.5	(mg/kg/day)-1	4.9E-07
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	4.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	4.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	1.4E-03	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	1.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	2.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	1.2E-06	mg/kg-day	7.3	(mg/kg/day)-1	8.8E-06
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	1.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	1.2E-06	mg/kg-day	0.7	(mg/kg/day)-1	8.9E-07
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	1.5E-06	mg/kg-day	0.7	(mg/kg/day)-1	1.1E-06
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	7.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	5.5E-07	mg/kg-day	0.1	(mg/kg/day)-1	4.0E-08
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	2.1E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-06
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	7.1E-07	mg/kg-day	0.7	(mg/kg/day)-1	5.2E-07
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	2.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	5.5E-13	mg/kg-day	150000	(mg/kg/day)-1	8.3E-08
										Sum of Cancer Risk from Ingestion	1.3E-05

Table 8.13.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-6 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	1.4E-06	mg/kg-day	1.5	(mg/kg/day)-1	2.1E-06
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	6.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	2.3E-05	mg/kg-day	7.3	(mg/kg/day)-1	1.7E-04
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	3.0E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	2.3E-05	mg/kg-day	0.7	(mg/kg/day)-1	1.7E-05
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	2.8E-05	mg/kg-day	0.7	(mg/kg/day)-1	2.0E-05
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.3E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.0E-05	mg/kg-day	0.1	(mg/kg/day)-1	7.6E-07
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	4.0E-06	mg/kg-day	7.3	(mg/kg/day)-1	2.9E-05
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.3E-05	mg/kg-day	0.7	(mg/kg/day)-1	9.8E-06
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	3.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.0E-05	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	2.4E-12	mg/kg-day	150000	(mg/kg/day)-1	3.6E-07
										Sum of Cancer Risk from Dermal Contact	2.5E-04
										Total Cancer Risk	2.6E-04

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.14.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-6 (North Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-6 (North Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	9.9E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	6.3E-08	mg/kg-day	1.50E+00	(mg/kg/day)-1	9.4E-08
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	7.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	8.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	2.6E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	2.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	2.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	3.9E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	2.3E-07	mg/kg-day	7.30E+00	(mg/kg/day)-1	1.7E-06
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	3.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	3.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	2.3E-07	mg/kg-day	7.30E-01	(mg/kg/day)-1	1.7E-07
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	2.8E-07	mg/kg-day	7.30E-01	(mg/kg/day)-1	2.1E-07
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.0E-07	mg/kg-day	7.30E-02	(mg/kg/day)-1	7.7E-09
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	4.1E-08	mg/kg-day	7.30E+00	(mg/kg/day)-1	3.0E-07
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	1.4E-07	mg/kg-day	7.30E-01	(mg/kg/day)-1	9.9E-08
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	3.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	1.1E-13	mg/kg-day	1.50E+05	(mg/kg/day)-1	1.6E-08
										Sum of Cancer Risk from Ingestion	2.6E-06

Table 8.14.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-6 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.1E+04	mg/kg	1.1E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.8E+00	mg/kg	6.8E+00	mg/kg	M	2.9E-08	mg/kg-day	1.50E+00	(mg/kg/day)-1	4.4E-08
	Cadmium	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	9.4E+01	mg/kg	9.4E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	2.8E+04	mg/kg	2.8E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.1E-02	mg/kg	3.1E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	4.2E+02	mg/kg	4.2E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	1.7E+00	mg/kg	1.7E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	PAHs										
	Benzo(a)pyrene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.7E-07	mg/kg-day	7.30E+00	(mg/kg/day)-1	3.4E-06
	2-Methylnaphthalene	3.3E+00	mg/kg	3.3E+00	mg/kg	M	6.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Acenaphthylene	3.9E+00	mg/kg	3.9E+00	mg/kg	M	7.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benz(a)anthracene	2.5E+01	mg/kg	2.5E+01	mg/kg	M	4.7E-07	mg/kg-day	7.30E-01	(mg/kg/day)-1	3.5E-07
	Benzo(b)fluoranthene	3.1E+01	mg/kg	3.1E+01	mg/kg	M	5.7E-07	mg/kg-day	7.30E-01	(mg/kg/day)-1	4.2E-07
	Benzo(g,h,i)perylene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	2.1E-07	mg/kg-day	7.30E-02	(mg/kg/day)-1	1.5E-08
	Dibenz(a,h)anthracene	4.4E+00	mg/kg	4.4E+00	mg/kg	M	8.3E-08	mg/kg-day	7.30E+00	(mg/kg/day)-1	6.0E-07
	Indeno(1,2,3-cd)pyrene	1.5E+01	mg/kg	1.5E+01	mg/kg	M	2.7E-07	mg/kg-day	7.30E-01	(mg/kg/day)-1	2.0E-07
	Naphthalene	4.3E+00	mg/kg	4.3E+00	mg/kg	M	8.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	3.3E+01	mg/kg	3.3E+01	mg/kg	M	6.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.1E-05	mg/kg	1.1E-05	mg/kg	M	4.9E-14	mg/kg-day	1.50E+05	(mg/kg/day)-1	7.4E-09
										Sum of Cancer Risk from Dermal Contact	5.0E-06
										Total Cancer Risk	7.6E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.15.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-10 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	6.9E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	3.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.7E-07	mg/kg-day	1.5	(mg/kg/day)-1	1.3E-06
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	2.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	1.2E-03	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	2.9E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	1.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	2.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	7.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	5.5E-08
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	7.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	5.8E-07
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	6.6E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.8E-08
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	1.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.4E-07
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	4.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.5E-08
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	1.7E-08	mg/kg-day	2	(mg/kg/day)-1	3.4E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	8.7E-13	mg/kg-day	150000	(mg/kg/day)-1	1.3E-07
										Sum of Cancer Risk from Ingestion	2.3E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.4E-07	mg/kg-day	1.5	(mg/kg/day)-1	6.7E-07
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.15.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-10 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.7E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-07
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	1.8E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.3E-06
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	1.5E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.1E-07
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	4.2E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.1E-07
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	1.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	7.8E-08
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	3.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	4.0E-08	mg/kg-day	2	(mg/kg/day)-1	8.1E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	4.5E-13	mg/kg-day	150000	(mg/kg/day)-1	6.7E-08
										Sum of Cancer Risks from Dermal Contact	2.7E-06
										Total Cancer Risks	5.0E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.16.RME
Calculation of Cancer Hazards
Reasonable Maximum Exposure
Wetland SYW-10 (North Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Recreational
Receptor Age: Older Child (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	4.5E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	2.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.6E-07	mg/kg-day	1.5	(mg/kg/day)-1	8.5E-07
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	1.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	7.7E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	1.9E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	4.9E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.6E-08
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	5.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.8E-07
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	4.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-08
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	1.2E-08	mg/kg-day	7.3	(mg/kg/day)-1	8.9E-08
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	3.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.3E-08
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	9.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	1.1E-08	mg/kg-day	2	(mg/kg/day)-1	2.2E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	5.7E-13	mg/kg-day	150000	(mg/kg/day)-1	8.5E-08
										Sum of Cancer Risks from Ingestion	1.5E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.5E-06	mg/kg-day	1.5	(mg/kg/day)-1	3.7E-06
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.90E+02	mg/kg	3.90E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.16.RME
Calculation of Cancer Hazards
Reasonable Maximum Exposure
Wetland SYW-10 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	9.3E-07	mg/kg-day	0.73	(mg/kg/day)-1	6.8E-07
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	9.7E-07	mg/kg-day	7.3	(mg/kg/day)-1	7.1E-06
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	8.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	5.9E-07
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	2.3E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.7E-06
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	6.0E-07	mg/kg-day	0.73	(mg/kg/day)-1	4.4E-07
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	2.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	2.2E-07	mg/kg-day	2	(mg/kg/day)-1	4.5E-07
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	2.5E-12	mg/kg-day	150000	(mg/kg/day)-1	3.7E-07
										Sum of Cancer Risks from Dermal Contact	1.5E-05
										Total Cancer Risks	1.7E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.17.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-10 (North Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-10 (North Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	8.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	4.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.1E-07	mg/kg-day	1.50	(mg/kg/day)-1	1.6E-07
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	2.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	1.5E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	3.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	2.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	2.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	9.5E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.9E-09
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	9.9E-09	mg/kg-day	7.30	(mg/kg/day)-1	7.2E-08
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	8.2E-09	mg/kg-day	0.73	(mg/kg/day)-1	6.0E-09
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	2.4E-09	mg/kg-day	7.30	(mg/kg/day)-1	1.7E-08
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	6.0E-09	mg/kg-day	0.73	(mg/kg/day)-1	4.4E-09
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	1.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	2.1E-09	mg/kg-day	2.00	(mg/kg/day)-1	4.2E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	1.1E-13	mg/kg-day	150000	(mg/kg/day)-1	1.6E-08
										Sum of Cancer Risks from Ingestion	2.9E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	9.3E+03	mg/kg	9.3E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Antimony	5.1E+00	mg/kg	5.1E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.0E-08	mg/kg-day	1.50	(mg/kg/day)-1	7.6E-08
	Chromium	3.2E+01	mg/kg	3.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.6E+04	mg/kg	1.6E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.17.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-10 (North Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Manganese	3.9E+02	mg/kg	3.9E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	2.3E+00	mg/kg	2.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	2.8E+00	mg/kg	2.8E+00	mg/kg	M	NA	mg/kg-day		(mg/kg/day)-1	
	Methylmercury	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day		(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.9E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.4E-08
	Benzo(a)pyrene	1.1E+00	mg/kg	1.1E+00	mg/kg	M	2.0E-08	mg/kg-day	7.30	(mg/kg/day)-1	1.5E-07
	Benzo(b)fluoranthene	8.9E-01	mg/kg	8.9E-01	mg/kg	M	1.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-08
	Dibenz(a,h)anthracene	2.5E-01	mg/kg	2.5E-01	mg/kg	M	4.7E-09	mg/kg-day	7.30	(mg/kg/day)-1	3.5E-08
	Indeno(1,2,3-cd)pyrene	6.6E-01	mg/kg	6.6E-01	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.9E-09
	PCBs										
	Aroclor 1260	2.0E-01	mg/kg	2.0E-01	mg/kg	M	4.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	2.3E-01	mg/kg	2.3E-01	mg/kg	M	4.6E-09	mg/kg-day	2.00	(mg/kg/day)-1	9.2E-09
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	1.2E-05	mg/kg	1.2E-05	mg/kg	M	5.1E-14	mg/kg-day	150000	(mg/kg/day)-1	7.6E-09
										Sum of Cancer Risks from Dermal Contact	3.1E-07
										Total	6.0E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.18.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-12 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	2.1E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	1.5E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.2E-07
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	9.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	7.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	6.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	2.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	4.0E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	6.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	7.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	7.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	1.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	8.0E-08
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3	(mg/kg/day)-1	7.8E-07
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	7.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	5.4E-08
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	4.0E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.9E-08
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	7.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	5.2E-08
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	1.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	6.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	9.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	5.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	2.2E-08	mg/kg-day	2	(mg/kg/day)-1	4.3E-08
										Sum of Cancer Risks from Ingestion	1.3E-06
Dermal											
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	7.6E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.1E-07
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.18.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-12 (South Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	2.4E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.8E-07
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	2.4E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.7E-06
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.6E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-07
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	8.9E-09	mg/kg-day	7.3	(mg/kg/day)-1	6.5E-08
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	1.6E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-07
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	3.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	5.2E-08	mg/kg-day	2	(mg/kg/day)-1	1.0E-07
										Sum of Cancer Risks from Dermal Contact	2.4E-06
										Total Cancer Risks	3.7E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.19.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-12 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	1.3E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	9.6E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.4E-07
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	6.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	4.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	4.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	1.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	2.6E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	4.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	1.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	4.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	4.6E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	7.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	5.2E-08
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	7.0E-08	mg/kg-day	7.3	(mg/kg/day)-1	5.1E-07
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	4.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.5E-08
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	2.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.9E-08
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	4.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.4E-08
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	6.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	3.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	1.4E-08	mg/kg-day	2	(mg/kg/day)-1	2.8E-08
										Sum of Cancer Risks from Ingestion	8.2E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	4.2E-07	mg/kg-day	1.5	(mg/kg/day)-1	6.3E-07
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	9.1E-08	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.19.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-12 (South Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	1.3E-06	mg/kg-day	0.73	(mg/kg/day)-1	9.8E-07
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	1.3E-06	mg/kg-day	7.3	(mg/kg/day)-1	9.6E-06
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	9.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	6.7E-07
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	4.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.6E-07
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	8.8E-07	mg/kg-day	0.73	(mg/kg/day)-1	6.5E-07
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	2.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	8.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	1.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	6.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	2.9E-07	mg/kg-day	2	(mg/kg/day)-1	5.7E-07
										Sum of Cancer Risks from Dermal Contact	1.3E-05
										Total Cancer Risks	1.4E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.20.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-12 (South Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-12 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	8.1E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	5.8E-08	mg/kg-day	1.5	(mg/kg/day)-1	8.7E-08
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	3.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	2.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	2.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	7.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	1.6E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	2.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	6.1E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	2.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	2.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	4.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-08
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	4.2E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.1E-07
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.9E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.1E-08
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	1.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.1E-08
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	2.8E-08	mg/kg-day	0.73	(mg/kg/day)-1	2.1E-08
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	6.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	3.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	2.0E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	8.5E-09	mg/kg-day	2	(mg/kg/day)-1	1.7E-08
										Sum of Cancer Risks from Ingestion	5.0E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	8.8E+03	mg/kg	8.8E+03	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	6.3E+00	mg/kg	6.3E+00	mg/kg	M	2.7E-08	mg/kg-day	1.5	(mg/kg/day)-1	4.1E-08
	Cadmium	4.1E+01	mg/kg	4.1E+01	mg/kg	M	5.8E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.20.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-12 (South Basin) Onondaga Lake

Exposure Route	Chemicals of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Chromium	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Copper	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.5E-01	mg/kg	8.5E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	2.7E+02	mg/kg	2.7E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	6.7E-01	mg/kg	6.7E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	3.0E+00	mg/kg	3.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	3.0E-02	mg/kg	3.0E-02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	PAHs										
	Benz(a)anthracene	4.7E+00	mg/kg	4.7E+00	mg/kg	M	8.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	6.3E-08
	Benzo(a)pyrene	4.6E+00	mg/kg	4.6E+00	mg/kg	M	8.5E-08	mg/kg-day	7.3	(mg/kg/day)-1	6.2E-07
	Benzo(b)fluoranthene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.9E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.3E-08
	Dibenz(a,h)anthracene	1.7E-01	mg/kg	1.7E-01	mg/kg	M	3.2E-09	mg/kg-day	7.3	(mg/kg/day)-1	2.3E-08
	Indeno(1,2,3-cd)pyrene	3.1E+00	mg/kg	3.1E+00	mg/kg	M	5.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.2E-08
	Phenanthrene	7.5E+00	mg/kg	7.5E+00	mg/kg	M	1.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	4.2E-01	mg/kg	4.2E-01	mg/kg	M	8.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	2.2E-01	mg/kg	2.2E-01	mg/kg	M	4.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	9.2E-01	mg/kg	9.2E-01	mg/kg	M	1.8E-08	mg/kg-day	2	(mg/kg/day)-1	3.7E-08
										Sum of Cancer Risks from Dermal Contact	8.7E-07
										Total Cancer Risks	1.4E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.21.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	7.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	2.0E-07	mg/kg-day	1.5	(mg/kg/day)-1	3.0E-07
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	1.2E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	6.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	1.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	2.4E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	7.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	9.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	1.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	8.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	2.1E-07	mg/kg-day	0.024	(mg/kg/day)-1	5.0E-09
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	6.5E-08	mg/kg-day	1.6	(mg/kg/day)-1	1.0E-07
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	2.7E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.9E-07
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	2.4E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.8E-06
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	2.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.6E-07
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	1.3E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.9E-07	mg/kg-day	0.073	(mg/kg/day)-1	1.4E-08
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	6.2E-08	mg/kg-day	7.3	(mg/kg/day)-1	4.5E-07
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.4E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.0E-07
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	3.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	9.1E-10	mg/kg-day	17	(mg/kg/day)-1	1.5E-08
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	6.9E-10	mg/kg-day	16	(mg/kg/day)-1	1.1E-08
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.21.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	7.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	3.1E-08	mg/kg-day	2	(mg/kg/day)-1	6.3E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	2.1E-11	mg/kg-day	150000	(mg/kg/day)-1	3.1E-06
										Sum of Cancer Risk from Ingestion	6.3E-06
Dermal	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.0E-07	mg/kg-day	1.5	(mg/kg/day)-1	1.5E-07
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	1.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	3.6E-07	mg/kg-day	0.024	(mg/kg/day)-1	8.6E-09
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	1.1E-07	mg/kg-day	1.6	(mg/kg/day)-1	1.8E-07
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	5.9E-07	mg/kg-day	0.73	(mg/kg/day)-1	4.3E-07
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	5.4E-07	mg/kg-day	7.3	(mg/kg/day)-1	4.0E-06
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	4.7E-07	mg/kg-day	0.73	(mg/kg/day)-1	3.4E-07
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	2.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	4.2E-07	mg/kg-day	0.073	(mg/kg/day)-1	3.0E-08
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.0E-06
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	2.3E-07
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	8.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	NA	mg/kg-day	17	(mg/kg/day)-1	
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	4.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	3.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	1.8E-08	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.21.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	7.5E-08	mg/kg-day	2	(mg/kg/day)-1	1.5E-07
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	1.1E-11	mg/kg-day	150000	(mg/kg/day)-1	1.6E-06
										Sum of Cancer Risks from Dermal Contact	8.1E-06
										Total	1.4E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.22.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	5.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	1.3E-07	mg/kg-day	1.5	(mg/kg/day)-1	2.0E-07
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	7.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	4.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	1.1E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	1.6E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	4.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	6.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	6.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	5.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	1.4E-07	mg/kg-day	0.024	(mg/kg/day)-1	3.3E-09
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	4.3E-08	mg/kg-day	1.6	(mg/kg/day)-1	6.8E-08
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.7E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.3E-07
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	1.6E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.2E-06
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	1.4E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.0E-07
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	8.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.2E-07	mg/kg-day	0.073	(mg/kg/day)-1	8.9E-09
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	4.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.0E-07
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	6.7E-08
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	2.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	5.9E-10	mg/kg-day	17	(mg/kg/day)-1	1.0E-08
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	4.5E-10	mg/kg-day	16	(mg/kg/day)-1	7.2E-09
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	9.4E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.22.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	4.8E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.0E-08	mg/kg-day	2	(mg/kg/day)-1	4.1E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	1.3E-11	mg/kg-day	150000	(mg/kg/day)-1	2.0E-06
										Sum of Cancer Risk from Ingestion	4.1E-06
Dermal	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	5.7E-07	mg/kg-day	1.5	(mg/kg/day)-1	8.6E-07
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	6.6E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	8.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	2.0E-06	mg/kg-day	0.024	(mg/kg/day)-1	4.8E-08
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	6.2E-07	mg/kg-day	1.6	(mg/kg/day)-1	9.9E-07
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	3.3E-06	mg/kg-day	0.73	(mg/kg/day)-1	2.4E-06
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	3.0E-06	mg/kg-day	7.3	(mg/kg/day)-1	2.2E-05
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	2.6E-06	mg/kg-day	0.73	(mg/kg/day)-1	1.9E-06
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	1.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	2.3E-06	mg/kg-day	0.073	(mg/kg/day)-1	1.7E-07
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	7.7E-07	mg/kg-day	7.3	(mg/kg/day)-1	5.6E-06
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.7E-06	mg/kg-day	0.73	(mg/kg/day)-1	1.3E-06
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	4.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	NA	mg/kg-day	17	(mg/kg/day)-1	
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	2.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	9.8E-08	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.22.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	4.2E-07	mg/kg-day	2	(mg/kg/day)-1	8.4E-07
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	5.9E-11	mg/kg-day	150000	(mg/kg/day)-1	8.8E-06
										Sum of Cancer Risks from Dermal Contact	4.5E-05
										Total	4.9E-05

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.23.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Sediments
Exposure Medium: Wetland Soil
Exposure Point: Wetland SYW-19 (South Basin)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	3.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	7.9E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.2E-07
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	4.7E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	2.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	6.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	9.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	2.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	3.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	3.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	3.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	8.2E-08	mg/kg-day	0.024	(mg/kg/day)-1	2.0E-09
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.6E-08	mg/kg-day	1.6	(mg/kg/day)-1	4.1E-08
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	1.0E-07	mg/kg-day	0.73	(mg/kg/day)-1	7.6E-08
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	9.6E-08	mg/kg-day	7.3	(mg/kg/day)-1	7.0E-07
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	8.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	6.1E-08
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	5.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	7.3E-08	mg/kg-day	0.073	(mg/kg/day)-1	5.4E-09
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.8E-07
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	5.5E-08	mg/kg-day	0.73	(mg/kg/day)-1	4.0E-08
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	1.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	3.6E-10	mg/kg-day	17	(mg/kg/day)-1	6.1E-09
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	2.7E-10	mg/kg-day	16	(mg/kg/day)-1	4.3E-09
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	6.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	5.7E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.23.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	2.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	1.2E-08	mg/kg-day	2	(mg/kg/day)-1	2.5E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	8.1E-12	mg/kg-day	150000	(mg/kg/day)-1	1.2E-06
										Sum of Cancer Risk from Ingestion	2.5E-06
Dermal	**Metals and Organometallic Compounds**										
	Antimony	3.3E+00	mg/kg	3.3E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.6E+00	mg/kg	8.6E+00	mg/kg	M	3.7E-08	mg/kg-day	1.5	(mg/kg/day)-1	5.5E-08
	Barium	5.1E+02	mg/kg	5.1E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cadmium	3.0E+00	mg/kg	3.0E+00	mg/kg	M	4.2E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	7.0E+01	mg/kg	7.0E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.0E+02	mg/kg	3.0E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Mercury(inorganic)	4.2E+01	mg/kg	4.2E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	4.3E-01	mg/kg	4.3E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	1,3-Dichlorobenzene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	5.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	8.9E+00	mg/kg	8.9E+00	mg/kg	M	1.3E-07	mg/kg-day	0.024	(mg/kg/day)-1	3.1E-09
	Hexachlorobenzene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	4.0E-08	mg/kg-day	1.6	(mg/kg/day)-1	6.4E-08
	PAHs										
	Benz(a)anthracene	1.1E+01	mg/kg	1.1E+01	mg/kg	M	2.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.5E-07
	Benzo(a)pyrene	1.0E+01	mg/kg	1.0E+01	mg/kg	M	1.9E-07	mg/kg-day	7.3	(mg/kg/day)-1	1.4E-06
	Benzo(b)fluoranthene	9.1E+00	mg/kg	9.1E+00	mg/kg	M	1.7E-07	mg/kg-day	0.73	(mg/kg/day)-1	1.2E-07
	Benzo(g,h,i)perylene	5.6E+00	mg/kg	5.6E+00	mg/kg	M	1.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.5E-07	mg/kg-day	0.073	(mg/kg/day)-1	1.1E-08
	Dibenz(a,h)anthracene	2.7E+00	mg/kg	2.7E+00	mg/kg	M	4.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.6E-07
	Indeno(1,2,3-cd)pyrene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-07	mg/kg-day	0.73	(mg/kg/day)-1	8.2E-08
	Phenanthrene	1.7E+01	mg/kg	1.7E+01	mg/kg	M	3.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Pesticides										
	Aldrin	3.9E-02	mg/kg	3.9E-02	mg/kg	M	NA	mg/kg-day	17	(mg/kg/day)-1	
	Dieldrin	2.9E-02	mg/kg	2.9E-02	mg/kg	M	NA	mg/kg-day	16	(mg/kg/day)-1	
	PCBs										
	Aroclor 1242	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1254	6.2E-01	mg/kg	6.2E-01	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1260	3.1E-01	mg/kg	3.1E-01	mg/kg	M	6.3E-09	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.23.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Wetland SYW-19 (South Basin) Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	Sum of PCBs	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.7E-08	mg/kg-day	2	(mg/kg/day)-1	5.4E-08
	PCDD/PCDFs										
	TEQ as 2,3,7,8-TCDD	8.8E-04	mg/kg	8.8E-04	mg/kg	M	3.8E-12	mg/kg-day	150000	(mg/kg/day)-1	5.7E-07
										Sum of Cancer Risks from Dermal Contact	2.9E-06
										Total	5.4E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.24.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Dredge Spoil Soils, Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	8.9E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	6.2E-07	mg/kg-day	1.5	(mg/kg/day)-1	9.3E-07
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	2.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	1.3E-03	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.6E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	3.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.0E-08	mg/kg-day	1.6	(mg/kg/day)-1	4.8E-08
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	9.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	7.0E-08
										Sum of Cancer Risk from Ingestion	1.0E-06
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	3.2E-07	mg/kg-day	1.5	(mg/kg/day)-1	4.8E-07
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.2E-08	mg/kg-day	1.6	(mg/kg/day)-1	8.3E-08
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	2.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.6E-07
										Sum of Cancer Risk from Dermal Contact	7.2E-07
										Total Cancer Risk	1.8E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.25.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Dredge Spoil Soils, Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	5.8E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	4.0E-07	mg/kg-day	1.5	(mg/kg/day)-1	6.1E-07
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	1.4E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	8.2E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	1.7E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	1.9E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.0E-08	mg/kg-day	1.6	(mg/kg/day)-1	3.2E-08
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	6.2E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.6E-08
										Sum of Cancer Risk from Ingestion	6.8E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	1.8E-06	mg/kg-day	1.5	(mg/kg/day)-1	2.6E-06
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	2.9E-07	mg/kg-day	1.6	(mg/kg/day)-1	4.6E-07
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	1.2E-07	mg/kg-day	7.3	(mg/kg/day)-1	8.6E-07
										Sum of Cancer Risk from Dermal Contact	4.0E-06
										Total Cancer Risk	4.7E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.26.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Dredge Spoil Soils, Onondaga Lake

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-3.5 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	1.1E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	7.7E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.2E-07
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	2.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	1.6E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	3.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	3.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	3.8E-09	mg/kg-day	1.6	(mg/kg/day)-1	6.1E-09
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	1.2E-09	mg/kg-day	7.3	(mg/kg/day)-1	8.8E-09
										Sum of Cancer Risk from Ingestion	1.3E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.2E+04	mg/kg	1.2E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.4E+00	mg/kg	8.4E+00	mg/kg	M	3.6E-08	mg/kg-day	1.5	(mg/kg/day)-1	5.4E-08
	Chromium	2.9E+01	mg/kg	2.9E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.7E+04	mg/kg	1.7E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.5E+02	mg/kg	3.5E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.0E+00	mg/kg	4.0E+00	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOCs										
	Hexachlorobenzene	4.1E-01	mg/kg	4.1E-01	mg/kg	M	5.9E-09	mg/kg-day	1.6	(mg/kg/day)-1	9.4E-09
	PAHs										
	Benzo(a)pyrene	1.3E-01	mg/kg	1.3E-01	mg/kg	M	2.4E-09	mg/kg-day	7.3	(mg/kg/day)-1	1.8E-08
										Sum of Cancer Risk from Dermal Contact	8.1E-08
										Total Cancer Risk	2.1E-07

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.27.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Dredge Spoil Soils (0-11.7 ft), Onondaga Lake

Scenario Timeframe: Future
Medium: Dredge Spoil Soils
Exposure Medium: Surface Soil
Exposure Point: Dredge Spoil Soils (0-11.7 ft)
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Aluminum	1.0E+04	mg/kg	1.0E+04	mg/kg	M	9.4E-05	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.7E+00	mg/kg	8.7E+00	mg/kg	M	8.1E-08	mg/kg-day	1.5	(mg/kg/day)-1	1.2E-07
	Cadmium	9.7E-01	mg/kg	9.7E-01	mg/kg	M	8.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.4E-01	mg/kg	8.4E-01	mg/kg	M	7.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.5E+04	mg/kg	1.5E+04	mg/kg	M	1.4E-04	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.8E+02	mg/kg	3.8E+02	mg/kg	M	3.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.9E-01	mg/kg	4.9E-01	mg/kg	M	4.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.8E+01	mg/kg	4.8E+01	mg/kg	M	4.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	Hexachlorobenzene	2.3E-01	mg/kg	2.3E-01	mg/kg	M	2.1E-09	mg/kg-day	1.6	(mg/kg/day)-1	3.3E-09
	PAHs										
	Benz(a)anthracene	2.5E+00	mg/kg	2.5E+00	mg/kg	M	2.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.7E-08
	Benzo(a)pyrene	2.6E+00	mg/kg	2.6E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3	(mg/kg/day)-1	1.8E-07
	Benzo(b)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	2.1E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.5E-08
	Benzo(g,h,i)perylene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	1.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	2.1E-08	mg/kg-day	0.073	(mg/kg/day)-1	1.5E-09
	Dibenz(a,h)anthracene	6.1E-01	mg/kg	6.1E-01	mg/kg	M	5.6E-09	mg/kg-day	7.3	(mg/kg/day)-1	4.1E-08
	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	1.2E-08	mg/kg-day	0.73	(mg/kg/day)-1	8.7E-09
	Naphthalene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	2.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	1.2E+00	mg/kg	1.2E+00	mg/kg	M	1.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	2.1E-01	mg/kg	2.1E-01	mg/kg	M	1.9E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.6E-01	mg/kg	3.6E-01	mg/kg	M	3.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	6.3E-01	mg/kg	6.3E-01	mg/kg	M	5.8E-09	mg/kg-day	2	(mg/kg/day)-1	1.2E-08
	PCDD/PCDFs										
	TEQ Furans (only)	4.2E-05	mg/kg	4.2E-05	mg/kg	M	3.9E-13	mg/kg-day	150000	(mg/kg/day)-1	5.8E-08
	TEQ as 2,3,7,8-TCDD	4.4E-05	mg/kg	4.4E-05	mg/kg	M	4.0E-13	mg/kg-day	150000	(mg/kg/day)-1	6.1E-08

Table 8.27.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Dredge Spoil Soils (0-11.7 ft), Onondaga Lake

Exposure Route	Chemical of Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
										Sum of Cancer Risk from Ingestion	4.6E-07
Dermal	**Metals and Organometallic Compounds**										
	Aluminum	1.0E+04	mg/kg	1.0E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Arsenic	8.7E+00	mg/kg	8.7E+00	mg/kg	M	3.8E-08	mg/kg-day	1.5	(mg/kg/day)-1	5.6E-08
	Cadmium	9.7E-01	mg/kg	9.7E-01	mg/kg	M	1.4E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.6E+01	mg/kg	2.6E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Cyanide	8.4E-01	mg/kg	8.4E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Iron	1.5E+04	mg/kg	1.5E+04	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	3.8E+02	mg/kg	3.8E+02	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Thallium	4.9E-01	mg/kg	4.9E-01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	4.8E+01	mg/kg	4.8E+01	mg/kg	M	NA	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	Hexachlorobenzene	2.3E-01	mg/kg	2.3E-01	mg/kg	M	3.2E-09	mg/kg-day	1.6	(mg/kg/day)-1	5.2E-09
	PAHs										
	Benz(a)anthracene	2.5E+00	mg/kg	2.5E+00	mg/kg	M	4.7E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.4E-08
	Benzo(a)pyrene	2.6E+00	mg/kg	2.6E+00	mg/kg	M	4.9E-08	mg/kg-day	7.3	(mg/kg/day)-1	3.6E-07
	Benzo(b)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	4.3E-08	mg/kg-day	0.73	(mg/kg/day)-1	3.1E-08
	Benzo(g,h,i)perylene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Benzo(k)fluoranthene	2.3E+00	mg/kg	2.3E+00	mg/kg	M	4.3E-08	mg/kg-day	0.073	(mg/kg/day)-1	3.1E-09
	Dibenz(a,h)anthracene	6.1E-01	mg/kg	6.1E-01	mg/kg	M	1.1E-08	mg/kg-day	7.3	(mg/kg/day)-1	8.3E-08
	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.4E-08	mg/kg-day	0.73	(mg/kg/day)-1	1.8E-08
	Naphthalene	2.8E+00	mg/kg	2.8E+00	mg/kg	M	5.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Phenanthrene	1.2E+00	mg/kg	1.2E+00	mg/kg	M	2.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	PCBs										
	Aroclor 1254	2.1E-01	mg/kg	2.1E-01	mg/kg	M	4.2E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Aroclor 1268	3.6E-01	mg/kg	3.6E-01	mg/kg	M	7.3E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Sum of PCBs	6.3E-01	mg/kg	6.3E-01	mg/kg	M	1.3E-08	mg/kg-day	2	(mg/kg/day)-1	2.5E-08
	PCDD/PCDFS										
	TEQ Furans (only)	4.2E-05	mg/kg	4.2E-05	mg/kg	M	1.8E-13	mg/kg-day	150000	(mg/kg/day)-1	2.7E-08
	TEQ as 2,3,7,8-TCDD	4.4E-05	mg/kg	4.4E-05	mg/kg	M	1.9E-13	mg/kg-day	150000	(mg/kg/day)-1	2.8E-08
										Sum of Cancer Risk from Dermal Contact	6.4E-07
										Total Cancer Risk	1.1E-06

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.28.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Adult (18 and older)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	2.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	7.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	7.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	1.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	5.7E-08	mg/kg-day	0.055	(mg/kg/day)-1	3.1E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	2.3E-08	mg/kg-day	0.062	(mg/kg/day)-1	1.4E-09
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	6.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	6.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	5.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	5.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	5.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	5.9E-08	mg/kg-day	0.024	(mg/kg/day)-1	1.4E-09
										Sum of Cancer Risk from Ingestion	6.0E-09
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	3.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	1.6E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	2.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	2.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	4.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	3.5E-07	mg/kg-day	0.055	(mg/kg/day)-1	1.9E-08
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	6.4E-08	mg/kg-day	0.062	(mg/kg/day)-1	4.0E-09
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	8.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	2.1E-07	mg/kg-day	NA	(mg/kg/day)-1	

Table 8.28.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	2.5E-06	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	1.6E-06	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	1.3E-06	mg/kg-day	0.024	(mg/kg/day)-1	3.2E-08
										Sum of Cancer Risk from Dermal Contact	5.5E-08
										Total Cancer Risk	6.1E-08

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.29.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Young Children (less than 6)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	1.1E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	2.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	7.8E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	7.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	1.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	5.7E-08	mg/kg-day	0.055	(mg/kg/day)-1	3.1E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	2.3E-08	mg/kg-day	0.062	(mg/kg/day)-1	1.4E-09
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	6.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	6.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	5.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	5.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	5.2E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	5.9E-08	mg/kg-day	0.024	(mg/kg/day)-1	1.4E-09
										Sum of Cancer Risk from Ingestion	6.0E-09
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	1.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	5.5E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	9.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	9.8E-11	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	1.6E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	1.2E-07	mg/kg-day	0.055	(mg/kg/day)-1	6.6E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	2.2E-08	mg/kg-day	0.062	(mg/kg/day)-1	1.4E-09
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	2.7E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	7.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										

Table 8.29.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	8.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	4.2E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	5.4E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	4.6E-07	mg/kg-day	0.024	(mg/kg/day)-1	1.1E-08
										Sum of Cancer Risk from Dermal Contact	1.9E-08
										Total Cancer Risk	2.5E-08

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.30.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Recreational
Receptor Age: Older Children (6 to < 18)

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	6.9E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	5.2E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	8.3E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	3.7E-08	mg/kg-day	0.055	(mg/kg/day)-1	2.0E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	1.5E-08	mg/kg-day	0.062	(mg/kg/day)-1	9.3E-10
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	4.0E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	4.1E-08	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	3.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	3.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	3.4E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	3.9E-08	mg/kg-day	0.024	(mg/kg/day)-1	9.3E-10
										Sum of Cancer Risk from Ingestion	3.9E-09
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	1.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	7.6E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	1.3E-06	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	1.3E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	2.2E-11	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	1.7E-07	mg/kg-day	0.055	(mg/kg/day)-1	9.1E-09
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	3.0E-08	mg/kg-day	0.062	(mg/kg/day)-1	1.9E-09
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	3.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	1.0E-07	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										

Table 8.30.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	1.2E-06	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	5.8E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	7.5E-07	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	6.3E-07	mg/kg-day	0.024	(mg/kg/day)-1	1.5E-08
										Sum of Cancer Risk from Dermal Contact	2.6E-08
										Total Cancer Risk	3.0E-08

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.31.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Scenario Timeframe: Future
Medium: Surface Water
Exposure Medium: Surface Water
Exposure Point: Onondaga Lake
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
Ingestion	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	3.7E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	7.9E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	2.7E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	2.8E-12	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	4.5E-13	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	2.0E-10	mg/kg-day	0.055	(mg/kg/day)-1	1.1E-11
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	8.1E-11	mg/kg-day	0.062	(mg/kg/day)-1	5.0E-12
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	2.1E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	2.2E-10	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	2.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	2.0E-10	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	1.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	2.1E-10	mg/kg-day	0.024	(mg/kg/day)-1	5.0E-12
										Sum of Cancer Risk from Ingestion	2.1E-11
Dermal	**Metals and Organometallic Compounds**										
	Cadmium	1.1E-03	mg/kg	1.1E-03	mg/kg	M	1.8E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Chromium	2.3E-03	mg/kg	2.3E-03	mg/kg	M	7.5E-10	mg/kg-day	NA	(mg/kg/day)-1	
	Manganese	8.2E-02	mg/kg	8.2E-02	mg/kg	M	1.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	Total Mercury	8.3E-06	mg/kg	8.3E-06	mg/kg	M	1.3E-12	mg/kg-day	NA	(mg/kg/day)-1	
	Methylmercury	1.3E-06	mg/kg	1.3E-06	mg/kg	M	2.1E-13	mg/kg-day	NA	(mg/kg/day)-1	
	VOC										
	Benzene	5.9E-04	mg/kg	5.9E-04	mg/kg	M	2.2E-09	mg/kg-day	0.055	(mg/kg/day)-1	1.2E-10
	Bromodichloromethane	2.4E-04	mg/kg	2.4E-04	mg/kg	M	4.9E-10	mg/kg-day	0.062	(mg/kg/day)-1	3.0E-11
	Chlorobenzene	6.4E-04	mg/kg	6.4E-04	mg/kg	M	5.5E-09	mg/kg-day	NA	(mg/kg/day)-1	
	Chloroform	6.6E-04	mg/kg	6.6E-04	mg/kg	M	1.4E-09	mg/kg-day	NA	(mg/kg/day)-1	
	SVOC										

Table 8.31.RME
Calculation of Cancer Risks
Reasonable Maximum Exposure
Surface Water Onondaga Lake

Exposure Route	Chemical of Potential Concern	Medium EPC Value[a]	Medium Units	Route EPC	Route EPC Units	EPC Applied	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor[c]	Cancer Slope Factor Units	Cancer Risk
	1,2,4-Trichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	1.8E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,2-Dichlorobenzene	5.8E-04	mg/kg	5.8E-04	mg/kg	M	9.7E-09	mg/kg-day	NA	(mg/kg/day)-1	
	1,3-Dichlorobenzene	5.4E-04	mg/kg	5.4E-04	mg/kg	M	1.3E-08	mg/kg-day	NA	(mg/kg/day)-1	
	1,4-Dichlorobenzene	6.2E-04	mg/kg	6.2E-04	mg/kg	M	1.0E-08	mg/kg-day	0.024	(mg/kg/day)-1	2.5E-10
										Sum of Cancer Risk from Dermal Contact	4.0E-10
										Total Cancer Risk	4.2E-10

Please refer to Table 8.32 for footnotes, acronyms and abbreviations.

Table 8.32
Footnotes and Acronyms and Abbreviations for Tables 8.1 through 8.31

Acronyms and abbreviations

NA	-	not applicable
EPA	-	U.S. Environmental Protection Agency
EPC	-	Exposure Point Concentration
M	-	medium-specific
PAHs	-	Polycyclic aromatic hydrocarbons
PCBs	-	Polychlorinated biphenyls
PCDD/PCDFs	-	Polychlorinated dibenzo-*p* -dioxins and dibenzofurans
SVOCs	-	Semivolatile Organic Compounds
TEQ	-	Toxic equivalents (as 2,3,7,8-TCDD) (See report Section 5.2.7 and Table 5-1.)
VOCs	-	Volatile Organic Compounds

Footnotes

[a] EPCs are either the 95th percentile UCL on the mean or the maximum concentration; see RAGS Tables 3.1 - 3.10

[b] [Not used]

[c] Toxicity values (CSFs) obtained from IRIS (accessed 2002) or EPA Health Effects Assessment Summary Tables (HEAST) (USEPA, 1997b). See detailed chemical-specific discussion in Chapter 5.
Toxicity values were adjusted to account for oral absorption (ABS_{GI}) to calculate risks for dermal exposure on the basis of absorbed dose. See Section 5.1.2.
Toxicity information for chromium assume chromium in form of Chromium(VI). See discussion in Chapter 5.
Toxicity information for arsenic in fish assume inorganic arsenic. See discussion in Chapter 5.
Methylmercury toxicity value used in hazard calculations for fish tissue. See discussion in Chapter 5.
Cancer risk for ' TEQ-Dioxins (only) ' and ' TEQ-Furans (only) ' are shown for information only. 'Sum of Cancer Risk ' total includes only the ' TEQ (total) ' risk from PCDD/PCDFs.

TABLE 9.1.RME
Summary of Receptor Risks and Hazards for COPCs
Adult: Reasonable Maximum Exposure Recreational
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Adult (18 and older)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	8.9E-01		NA	8.9E-01
			Arsenic (inorganic)	1.8E-05		NA	1.8E-05	Arsenic (inorganic)	Skin	9.6E-02		NA	9.6E-02
			Chromium	NA		NA		Chromium	None reported	6.7E-02		NA	6.7E-02
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	1.0E-01		NA	1.0E-01
			Manganese	NA		NA		Manganese	Central Nervous System	8.2E-03		NA	8.2E-03
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	Developmental Neuropsychological Impairment	3.9E+00		NA	3.9E+00
			Selenium	NA		NA		Selenium	Whole Body	1.0E-01		NA	1.0E-01
			Vanadium	NA		NA		Vanadium	Not Reported/Unknown	3.2E-02		NA	3.2E-02
			Zinc	NA		NA		Zinc	Blood	5.2E-02		NA	5.2E-02
			SVOCs	NA				**SVOCs**					
			bis(2-ethylhexyl)phthalate	4.9E-06		NA	4.9E-06	bis(2-ethylhexyl)phthalate	Liver	4.1E-02		NA	4.1E-02
			Hexachlorobenzene	3.2E-06		NA	3.2E-06	Hexachlorobenzene	Liver	5.8E-03		NA	5.8E-03
			Pesticides	NA				**Pesticides**					
			2,4'-DDE	NA		NA		2,4'-DDE		NA		NA	
			4,4'-DDD	4.9E-07		NA	4.9E-07	4,4'-DDD	Liver	1.6E-03		NA	1.6E-03
			4,4'-DDE	1.8E-06		NA	1.8E-06	4,4'-DDE	Liver	1.8E-02		NA	1.8E-02
			4,4'-DDT	4.9E-07		NA	4.9E-07	4,4'-DDT	Liver	6.8E-03		NA	6.8E-03
			Aldrin	6.6E-06		NA	6.6E-06	Aldrin	Liver	3.0E-02		NA	3.0E-02
			delta-BHC	NA		NA		delta-BHC	Liver/kidney	3.0E-03		NA	3.0E-03
			Dieldrin	9.3E-06		NA	9.3E-06	Dieldrin	Liver	2.7E-02		NA	2.7E-02
			Heptachlor epoxide	5.8E-06		NA	5.8E-06	Heptachlor epoxide	Liver	1.1E-01		NA	1.1E-01
			Sum of chlordanes	5.2E-07		NA	5.2E-07	Sum of chlordanes	Liver	6.9E-03		NA	6.9E-03
			PCBs	NA				**PCBs**					
			Aroclor 1016	NA		NA							
			Aroclor 1242	NA		NA							
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	2.4E+00		NA	2.4E+00
			Aroclor 1248	NA		NA							
			Aroclor 1260	NA		NA							
			Aroclors 1254 & 1260	NA		NA							
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	1.0E+01		NA	1.0E+01
			Sum of PCBs	2.8E-04		NA	2.8E-04	Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs	NA				**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	4.5E-04		NA	4.5E-04	TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Fish Tissue - Total)	7.8E-04		NA	7.8E-04	(Fish Tissue - Total)		18.2		NA	18.2
							Total Risk Across Fish Tissue: 7.8E-04						Total Hazard Across Fish Tissue: 18.2

TABLE 9.1.RME
Summary of Receptor Risks and Hazards for COPCs
Adult: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	4.0E-03		NA	4.0E-03
			Arsenic	4.3E-07		2.2E-07	6.5E-07	Arsenic	Skin	2.2E-03		1.1E-03	3.3E-03
			Barium	NA		NA		Barium	Cardiovascular System	3.7E-04		NA	3.7E-04
			Cadmium	NA		NA		Cadmium	Kidneys	3.5E-04		2.4E-04	5.9E-04
			Chromium	NA		NA		Chromium	None reported	1.9E-03		NA	1.9E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	3.3E-03		NA	3.3E-03
			Manganese	NA		NA		Manganese	Central Nervous System	2.0E-03		NA	2.0E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	3.4E-06		NA	3.4E-06
			Total Mercury	NA		NA		Total mercury	Immune System	1.1E-03		NA	1.1E-03
			Thallium	NA		NA		Thallium	NOAEL; various	7.6E-04		NA	7.6E-04
			VOCs					**VOCs**					
			Benzene	3.6E-10		NA	3.6E-10	Benzene	Immune System/Blood	5.1E-06		NA	5.1E-06
			SVOCs					**SVOCs**					
			Hexachlorobenzene	4.8E-08		8.2E-08	1.3E-07	Hexachlorobenzene	Liver	8.7E-05		1.5E-04	2.4E-04
			Benz(a)anthracene	8.8E-09		2.0E-08	2.8E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	8.4E-08		1.9E-07	2.7E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.3E-08		2.8E-08	4.1E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.6E-08		5.8E-08	8.4E-08	Dibenz(a,h)anthracene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	3.4E-06		7.4E-06	1.1E-05
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	3.5E-04		8.5E-04	1.2E-03
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	3.0E-04		7.1E-04	1.0E-03
			Sum of PCBs	1.3E-08		3.0E-08	4.3E-08	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.2E-08		1.1E-08	3.3E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	6.4E-07		6.3E-07	1.3E-06	(North Basin Sediment Total)		0.02		0.003	0.02
Sediment	Wetland Sediments	Wetland SYW 6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.8E-03		NA	1.8E-03
			Arsenic	7.5E-07		3.9E-07	1.1E-06	Arsenic	Skin	3.9E-03		2.0E-03	5.9E-03
			Cadmium	NA		NA		Cadmium	Kidneys	1.5E-03		1.0E-03	2.5E-03
			Chromium	NA		NA		Chromium	None reported	5.4E-03		NA	5.4E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	2.4E-05		NA	2.4E-05
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.6E-02		NA	1.6E-02
			Manganese	NA		NA		Manganese	Central Nervous System	3.1E-03		NA	3.1E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.7E-03		NA	1.7E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	5.3E-05		NA	5.3E-05
			Thallium	NA		NA		Thallium	NOAEL; various	4.3E-03		NA	4.3E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	1.3E-05		3.0E-05	4.3E-05	Benzo(a)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	2.8E-05		6.3E-05	9.1E-05
			Acenaphthylene					Acenaphthylene	Kidney	2.2E-05		5.0E-05	7.2E-05
			Benz(a)anthracene	1.4E-06		3.0E-06	4.4E-06	Benz(a)anthracene		NA		NA	
			Benzo(b)fluoranthene	1.7E-06		3.7E-06	5.3E-06	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	8.4E-05		1.9E-04	2.7E-04

TABLE 9.1.RME
Summary of Receptor Risks and Hazards for COPCs
Adult: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Benzo(k)fluoranthene	6.1E-08		1.4E-07	2.0E-07	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.4E-06		5.3E-06	7.7E-06	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	7.9E-07		1.8E-06	2.6E-06	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene					Naphthalene	Decreased body weight	3.7E-05		8.2E-05	1.2E-04
			Phenanthrene					Phenanthrene	Kidney	1.9E-04		4.1E-04	6.0E-04
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.3E-07		6.5E-08	1.9E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-6 Sediment Total)	2.1E-05		4.4E-05	6.5E-05	(Wetland SYW-6 Sediment Total)		0.04		0.004	0.04
Sediment	Wetland Sediments	Wetland SYW 10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.6E-03		NA	1.6E-03
			Antimony	NA		NA		Antimony	Whole Body/Blood	2.2E-03		NA	2.2E-03
			Arsenic	1.3E-06		6.7E-07	2.0E-06	Arsenic	Skin	6.7E-03		3.5E-03	1.0E-02
			Chromium	NA		NA		Chromium	None reported	1.8E-03		NA	1.8E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	9.2E-03		NA	9.2E-03
			Manganese	NA		NA		Manganese	Central Nervous System	2.9E-03		NA	2.9E-03
			Mercury(inorganic)					Mercury(inorganic)	Immune System	1.6E-03		NA	1.6E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	4.9E-05		NA	4.9E-05
			Thallium	NA		NA		Thallium	NOAEL; various	5.9E-03		NA	5.9E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	5.5E-08		1.2E-07	1.8E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	5.8E-07		1.3E-06	1.9E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	4.8E-08		1.1E-07	1.5E-07	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.4E-07		3.1E-07	4.4E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	3.5E-08		7.8E-08	1.1E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	1.7E-03		4.2E-03	5.9E-03
			Sum of PCBs	3.4E-08		8.1E-08	1.1E-07	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.3E-07		6.7E-08	2.0E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-10 Sediment Total)	2.3E-06		2.7E-06	5.0E-06	(Wetland SYW-10 Sediment Total)		0.03		0.008	0.04
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	2.2E-04		NA	2.2E-04
			Antimony					Antimony	Whole Body/Blood	4.2E-04		NA	4.2E-04
			Arsenic	4.4E-07		2.2E-07	6.6E-07	Arsenic	Skin	2.3E-03		1.2E-03	3.4E-03
			Barium					Barium	Cardiovascular System	7.1E-04		NA	7.1E-04
			Cadmium					Cadmium	Kidneys	2.1E-04		1.5E-04	3.6E-04
			Chromium					Chromium	None reported	3.7E-03		NA	3.7E-03
			Copper					Copper	Liver/Kidneys/Forestomach	1.3E-04		NA	1.3E-04
			Cyanide					Cyanide	Whole Body/Blood	4.1E-06		NA	4.1E-06
			Iron					Iron	Liver, spleen, lymph system	2.2E-03		NA	2.2E-03
			Lead					Lead	CNS, blood, whole body	NA		NA	
			Manganese					Manganese	Central Nervous System	6.9E-04		NA	6.9E-04
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	1.2E-05		NA	1.2E-05

TABLE 9.1.RME
Summary of Receptor Risks and Hazards for COPCs
Adult: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Total Mercury					Total mercury	Immune System	3.4E-03		NA	3.4E-03
			Nickel					Nickel	Whole Body/Major Organs	2.0E-04		NA	2.0E-04
			Thallium					Thallium	NOAEL; various	3.3E-04		NA	3.3E-04
			Vanadium					Vanadium	Not Reported/Unknown	2.3E-04		NA	2.3E-04
			VOCs					**VOCs**					
			Benzene	7.9E-08		NA	7.9E-08	Benzene	Immune System/Blood	1.1E-03		NA	1.1E-03
			Chlorobenzene					Chlorobenzene	Liver	4.9E-04		NA	4.9E-04
			Methylene chloride	1.5E-09		NA	1.5E-09	Methylene chloride	Liver	7.8E-06		NA	7.8E-06
			Xylenes					Xylenes	NOAEL; CNS	9.0E-06		NA	9.0E-06
			SVOCs					**SVOCs**					
			Dibenzofuran					Dibenzofuran	Liver	2.5E-04		4.2E-04	6.7E-04
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	2.8E-04		4.8E-04	7.7E-04
			1,4-Dichlorobenzene	3.5E-08		6.0E-08	9.6E-08	1,4-Dichlorobenzene	Skin/Blood	1.1E-04		2.0E-04	3.1E-04
			Hexachlorobenzene	2.5E-07		4.3E-07	6.8E-07	Hexachlorobenzene	Liver	4.6E-04		7.8E-04	1.2E-03
			Acenaphthylene					Acenaphthylene	Kidney	7.7E-06		1.7E-05	2.5E-05
			Benz(a)anthracene	1.7E-07		3.7E-07	5.4E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.3E-06		2.8E-06	4.1E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.7E-07		3.7E-07	5.4E-07	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	1.2E-05		2.6E-05	3.8E-05
			Benzo(k)fluoranthene	6.1E-09		1.4E-08	2.0E-08	Benzo(k)fluoranthene		NA		NA	
			Chrysene	1.6E-09		3.7E-09	5.3E-09	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	2.8E-07		6.2E-07	9.0E-07	Dibenz(a,h)anthracene		NA		NA	
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	4.6E-05		1.0E-04	1.5E-04
			Indeno(1,2,3-cd)pyrene	6.5E-08		1.4E-07	2.1E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	4.8E-04		1.1E-03	1.6E-03
			Naphthalene					Naphthalene	Decreased body weight	2.9E-03		6.4E-03	9.3E-03
			Phenanthrene					Phenanthrene	Kidney	9.6E-05		2.1E-04	3.1E-04
			Pesticides					**Pesticides**					
			Dieldrin	3.3E-09		NA	3.3E-09	Dieldrin	Liver	9.5E-06		NA	9.5E-06
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	6.4E-05		1.5E-04	2.2E-04
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	2.7E-04		6.5E-04	9.2E-04
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	6.2E-04		1.5E-03	2.1E-03
			Aroclor 1254					Aroclor 1254	Immune System	3.8E-04		9.1E-04	1.3E-03
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	5.5E-04		1.3E-03	1.9E-03
			Sum of PCBs	5.0E-08		1.2E-07	1.7E-07	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.3E-06		6.8E-07	2.0E-06	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	4.1E-06		5.9E-06	1.0E-05	(South Basin Sediment Total)		0.02		0.02	0.04
Sediment	Wetland Sediments	Wetland SYW 12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	4.8E-04		NA	4.8E-04
			Arsenic	2.2E-07		1.1E-07	3.4E-07	Arsenic	Skin	1.2E-03		5.9E-04	1.7E-03
			Cadmium	NA		NA		Cadmium	Kidneys	2.2E-03		1.5E-03	3.8E-03
			Chromium	NA		NA		Chromium	None reported	5.5E-03		NA	5.5E-03
			Copper	NA		NA		Copper	Liver/Kidneys/Forestomach	3.7E-04		NA	3.7E-04
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	2.3E-06		NA	2.3E-06
			Iron	NA		NA		Iron	Liver, spleen, lymph system	3.1E-03		NA	3.1E-03
			Manganese	NA		NA		Manganese	Central Nervous System	6.3E-04		NA	6.3E-04
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	5.4E-04		NA	5.4E-04

TABLE 9.1.RME
Summary of Receptor Risks and Hazards for COPCs
Adult: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	1.6E-05		NA	1.6E-05
			Thallium	NA		NA		Thallium	NOAEL; various	5.5E-04		NA	5.5E-04
			SVOCs					**SVOCs**					
			Benz(a)anthracene	8.0E-08		1.8E-07	2.6E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	7.8E-07		1.7E-06	2.5E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	5.4E-08		1.2E-07	1.7E-07	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.9E-08		6.5E-08	9.4E-08	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	5.2E-08		1.2E-07	1.7E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	1.4E-05		3.0E-05	4.4E-05
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	2.2E-04		5.2E-04	7.4E-04
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	1.2E-03		2.8E-03	3.9E-03
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	6.0E-04		1.4E-03	2.0E-03
			Sum of PCBs	4.3E-08		1.0E-07	1.5E-07	Sum of PCBs		NA		NA	
			(Wetland SYW-12 Sediment Total)	1.3E-06		2.4E-06	3.7E-06	(Wetland SYW-12 Sediment Total)		0.02		0.007	0.02
Sediment	Wetland Sediments	Wetland SYW 19 (South Basin)	**Inorganics**					**Inorganics**					
			Antimony					Antimony	Whole Body/Blood	4.5E-04		NA	4.5E-04
			Arsenic	3.0E-07		1.5E-07	4.6E-07	Arsenic	Skin	1.6E-03		8.0E-04	2.4E-03
			Barium					Barium	Cardiovascular System	4.0E-04		NA	4.0E-04
			Cadmium					Cadmium	Kidneys	1.6E-04		1.1E-04	2.7E-04
			Chromium					Chromium	None reported	1.3E-03		NA	1.3E-03
			Iron					Iron	Liver, spleen, lymph system	1.9E-03		NA	1.9E-03
			Manganese					Manganese	Central Nervous System	7.1E-04		NA	7.1E-04
			Mercury(inorganic)					Mercury(inorganic)	Immune System	7.7E-03		NA	7.7E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	2.3E-04		NA	2.3E-04
			SVOCs					**SVOCs**					
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	2.3E-04		3.9E-04	6.3E-04
			1,4-Dichlorobenzene	5.0E-09		8.6E-09	1.4E-08	1,4-Dichlorobenzene	Skin/Blood	1.6E-05		2.8E-05	4.4E-05
			Hexachlorobenzene	1.0E-07		1.8E-07	2.8E-07	Hexachlorobenzene	Liver	1.9E-04		3.3E-04	5.2E-04
			Benz(a)anthracene	1.9E-07		4.3E-07	6.3E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.8E-06		4.0E-06	5.7E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.6E-07		3.4E-07	5.0E-07	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	1.0E-05		2.3E-05	3.3E-05
			Benzo(k)fluoranthene	1.4E-08		3.0E-08	4.4E-08	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	4.5E-07		1.0E-06	1.5E-06	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	1.0E-07		2.3E-07	3.3E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene					Phenanthrene	Kidney	3.0E-05		6.7E-05	9.7E-05
			Pesticides					**Pesticides**					
			Aldrin	1.5E-08		NA	1.5E-08	Aldrin	Liver	7.1E-05		NA	7.1E-05
			Dieldrin	1.1E-08		NA	1.1E-08	Dieldrin	Liver	3.2E-05		NA	3.2E-05
			PCBs					**PCBs**					
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	5.5E-04		1.3E-03	1.9E-03
			Aroclor 1254					Aroclor 1254	Immune System	1.7E-03		4.0E-03	5.7E-03
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	8.6E-04		2.1E-03	2.9E-03
			Sum of PCBs	6.3E-08		1.5E-07	2.1E-07	Sum of PCBs		NA		NA	

TABLE 9.1.RME
Summary of Receptor Risks and Hazards for COPCs
Adult: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	3.1E-06		1.6E-06	4.7E-06	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-19 Sediment Total)	6.3E-06		8.1E-06	1.4E-05	(Wetland SYW-19 Sediment Total)		0.02		0.009	0.03
						Total Risk Across Sediment	9.9E-05					Total Hazard Across Sediment	0.19
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	2.1E-03		NA	2.1E-03
			Arsenic	9.3E-07		4.8E-07	1.4E-06	Arsenic	Skin	4.8E-03		2.5E-03	7.3E-03
			Chromium	NA		NA		Chromium	None reported	1.7E-03		NA	1.7E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	9.8E-03		NA	9.8E-03
			Manganese	NA		NA		Manganese	Central Nervous System	2.6E-03		NA	2.6E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	2.3E-03		NA	2.3E-03
			SVOCs					**SVOCs**					
			Hexachlorobenzene	4.8E-08		8.3E-08	1.3E-07	Hexachlorobenzene	Liver	8.8E-05		1.5E-04	2.4E-04
			Benzo(a)pyrene	7.0E-08		1.6E-07	2.3E-07	Benzo(a)pyrene		NA		NA	
			(Dredge Spoils - Surface Total)	1.0E-06		7.2E-07	1.8E-06	(Dredge Spoils - Surface Total)		0.02		0.003	0.03
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Naphthalene	NA		NA		Naphthalene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1268	NA		NA		Aroclor 1268	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Dredge Spoils - Subsurface Total)	NA		NA		(Dredge Spoils - Subsurface Total)	NA	NA		NA	
						Total Risk across Dredge Spoils	1.8E-06					Total Hazard across Dredge Spoils	0.03

TABLE 9.1.RME
Summary of Receptor Risks and Hazards for COPCs
Adult: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					
			Cadmium					Cadmium	Kidneys	5.0E-04		7.1E-03	7.6E-03
			Chromium					Chromium	None reported	1.7E-04		5.0E-03	5.2E-03
			Manganese					Manganese	Central Nervous System	1.3E-04		1.2E-03	1.3E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	3.0E-06		1.1E-06	4.0E-06
			Total Mercury					Total mercury	Immune System	6.2E-06		3.2E-05	3.8E-05
			VOCs					**VOCs**					
			Benzene	3.1E-09		1.9E-08	2.3E-08	Benzene	Immune System/Blood	4.4E-05		2.7E-04	3.2E-04
			Chlorobenzene					Chlorobenzene	Liver	7.1E-06		9.3E-05	1.0E-04
			Chloroform					Chloroform	Liver	1.5E-05		5.0E-05	6.5E-05
			SVOCs					**SVOCs**					
			Bromodichloromethane	1.4E-09		4.0E-09	5.4E-09	Bromodichloromethane	Kidney	2.7E-06		7.5E-06	1.0E-05
			1,2-Dichlorobenzene					1,2-Dichlorobenzene	NOAEL	1.5E-06		3.2E-05	3.3E-05
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	1.3E-04		4.1E-03	4.3E-03
			1,4-Dichlorobenzene	1.4E-09		3.2E-08	3.3E-08	1,4-Dichlorobenzene	Skin/Blood	4.6E-06		1.0E-04	1.1E-04
			1,2,4-Trichlorobenzene					1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	1.3E-05		5.8E-04	5.9E-04
			(Surface Water - Total)	6.0E-09		5.5E-08	6.1E-08	(Surface Water - Total)		0.001		0.02	0.02
							Total Risk Across Surface Water	6.1E-08					Total Hazard Across Surface Water	0.02
							Total Risk Across All Media and All Exposure Routes	8.8E-04					Total Hazard Index Across All Media and All Exposure Routes	18.4

Total [Lungs] HI =	0.002	Total [DNI] HI =	3.87	Total [Kidney] HI =	0.01	Total [Blood] HI =	1.05
Total [Immune System] HI =	10.3	Total [Birth Weight] HI =	2.45	Total [CNS] HI =	0.02	Total [Body Weight] HI =	0.011
Total [Skin] HI =	0.14	Total [NOAEL] HI =	0.01	Total [Liver] HI =	0.31	Total [Whole Body] HI =	1.10

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 9.2.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Young Child (less than 6)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	1.4E+00		NA	1.4E+00
			Arsenic (inorganic)	5.7E-06		NA	5.7E-06	Arsenic (inorganic)	Skin	1.5E-01		NA	1.5E-01
			Chromium	NA		NA		Chromium	None reported	1.0E-01		NA	1.0E-01
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	1.6E-01		NA	1.6E-01
			Manganese	NA		NA		Manganese	Central Nervous System	1.3E-02		NA	1.3E-02
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	Developmental Neuropsychological Impairment	6.0E+00		NA	6.0E+00
			Selenium	NA		NA		Selenium	Whole Body	1.6E-01		NA	1.6E-01
			Vanadium	NA		NA		Vanadium	Not Reported/Unknown	5.0E-02		NA	5.0E-02
			Zinc	NA		NA		Zinc	Blood	8.1E-02		NA	8.1E-02
			SVOCs					**SVOCs**					
			bis(2-ethylhexyl)phthalate	1.5E-06		NA	1.5E-06	bis(2-ethylhexyl)phthalate	Liver	6.4E-02		NA	6.4E-02
			Hexachlorobenzene	9.9E-07		NA	9.9E-07	Hexachlorobenzene	Liver	9.0E-03		NA	9.0E-03
			Pesticides					**Pesticides**					
			2,4'-DDE	NA		NA		2,4'-DDE		NA		NA	
			4,4'-DDD	1.5E-07		NA	1.5E-07	4,4'-DDD	Liver	2.5E-03		NA	2.5E-03
			4,4'-DDE	5.6E-07		NA	5.6E-07	4,4'-DDE	Liver	2.7E-02		NA	2.7E-02
			4,4'-DDT	1.5E-07		NA	1.5E-07	4,4'-DDT	Liver	1.1E-02		NA	1.1E-02
			Aldrin	2.0E-06		NA	2.0E-06	Aldrin	Liver	4.7E-02		NA	4.7E-02
			delta-BHC	NA		NA		delta-BHC	Liver/kidney	4.7E-03		NA	4.7E-03
			Dieldrin	2.9E-06		NA	2.9E-06	Dieldrin	Liver	4.2E-02		NA	4.2E-02
			Heptachlor epoxide	1.8E-06		NA	1.8E-06	Heptachlor epoxide	Liver	1.8E-01		NA	1.8E-01
			Sum of chlordanes	1.6E-07		NA	1.6E-07	Sum of chlordanes	Liver	1.1E-02		NA	1.1E-02
			PCBs					**PCBs**					
			Aroclor 1016	NA		NA							
			Aroclor 1242	NA		NA							
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	3.8E+00		NA	3.8E+00
			Aroclor 1248	NA		NA							
			Aroclor 1260	NA		NA							
			Aroclors 1254 & 1260	NA		NA							
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	1.6E+01		NA	1.6E+01
			Sum of PCBs	8.7E-05		NA	8.7E-05	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.4E-04		NA	1.4E-04	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Fish Tissue - Total)	2.4E-04		NA	2.4E-04	(Fish Tissue - Total)		28.3		NA	28.3
							Total Risk Across Fish Tissue						Total Hazard Across Fish Tissue
							2.4E-04						28.3

TABLE 9.2.RME
Summary of Receptor Risks and Hazards for COPCs
Young Child: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	3.7E-02		NA	3.7E-02
			Arsenic	8.0E-07		9.0E-07	1.7E-06	Arsenic	Skin	2.1E-02		2.3E-02	4.4E-02
			Barium	NA		NA		Barium	Cardiovascular System	3.5E-03		NA	3.5E-03
			Cadmium	NA		NA		Cadmium	Kidneys	3.3E-03		4.9E-03	8.2E-03
			Chromium	NA		NA		Chromium	None reported	1.7E-02		NA	1.7E-02
			Iron	NA		NA		Iron	Liver, spleen, lymph system	3.1E-02		NA	3.1E-02
			Manganese	NA		NA		Manganese	Central Nervous System	1.9E-02		NA	1.9E-02
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	3.2E-05		NA	3.2E-05
			Total Mercury	NA		NA		Total mercury	Immune System	1.0E-02		NA	1.0E-02
			Thallium	NA		NA		Thallium	NOAEL; various	7.1E-03		NA	7.1E-03
			VOCs					**VOCs**					
			Benzene	6.8E-10		NA	6.8E-10	Benzene	Immune System/Blood	4.8E-05		NA	4.8E-05
			SVOCs					**SVOCs**					
			Hexachlorobenzene	8.9E-08		3.4E-07	4.3E-07	Hexachlorobenzene	Liver	8.2E-04		3.1E-03	3.9E-03
			Benz(a)anthracene	1.6E-08		8.1E-08	9.7E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.6E-07		7.7E-07	9.3E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	2.4E-08		1.2E-07	1.4E-07	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	4.9E-08		2.4E-07	2.9E-07	Dibenz(a,h)anthracene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	3.1E-05		1.5E-04	1.8E-04
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	3.3E-03		1.8E-02	2.1E-02
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	2.8E-03		1.5E-02	1.8E-02
			Sum of PCBs	2.4E-08		1.3E-07	1.5E-07	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	4.0E-08		4.6E-08	8.6E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	1.2E-06		2.6E-06	3.8E-06	(North Basin Sediment Total)		0.16		0.06	0.22
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	NA	NA		NA	
			Methylmercury	NA		NA		Methylmercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			2-Methylnaphthalene	NA		NA		2-Methylnaphthalene	NA	NA		NA	
			Acenaphthylene	NA		NA		Acenaphthylene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Naphthalene	NA		NA		Naphthalene	NA	NA		NA	

TABLE 9.2.RME
Summary of Receptor Risks and Hazards for COPCs
Young Child: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Wetland SYW-6 Sediment Total)					(Wetland SYW-6 Sediment Total)	NA				
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Antimony	NA		NA		Antimony	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	NA	NA		NA	
			Methylmercury	NA		NA		Methylmercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Wetland SYW-10 Sediment Total)					(Wetland SYW-10 Sediment Total)					
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	2.1E-03		NA	2.1E-03
			Antimony					Antimony	Whole Body/Blood	3.9E-03		NA	3.9E-03
			Arsenic	8.1E-07		9.2E-07	1.7E-06	Arsenic	Skin	2.1E-02		2.4E-02	4.5E-02
			Barium					Barium	Cardiovascular System	6.6E-03		NA	6.6E-03
			Cadmium					Cadmium	Kidneys	2.0E-03		3.0E-03	5.0E-03
			Chromium					Chromium	None reported	3.5E-02		NA	3.5E-02
			Copper					Copper	Liver/Kidneys/Forestomach	1.2E-03		NA	1.2E-03
			Cyanide					Cyanide	Whole Body/Blood	3.9E-05		NA	3.9E-05
			Iron					Iron	Liver, spleen, lymph system	2.1E-02		NA	2.1E-02
			Lead					Lead	CNS, blood, whole body	NA		NA	
			Manganese					Manganese	Central Nervous System	6.5E-03		NA	6.5E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	1.1E-04		NA	1.1E-04
			Total Mercury					Total mercury	Immune System	3.2E-02		NA	3.2E-02
			Nickel					Nickel	Whole Body/Major Organs	1.9E-03		NA	1.9E-03
			Thallium					Thallium	NOAEL; various	3.1E-03		NA	3.1E-03
			Vanadium					Vanadium	Not Reported/Unknown	2.2E-03		NA	2.2E-03
			VOCs					**VOCs**					
			Benzene	1.5E-07		NA	1.5E-07	Benzene	Immune System/Blood	1.0E-02		NA	1.0E-02
			Chlorobenzene					Chlorobenzene	Liver	4.6E-03		NA	4.6E-03
			Methylene chloride	2.8E-09		NA	2.8E-09	Methylene chloride	Liver	7.2E-05		NA	7.2E-05
			Xylenes					Xylenes	NOAEL; CNS	8.4E-05		NA	8.4E-05

TABLE 9.2.RME
Summary of Receptor Risks and Hazards for COPCs
Young Child: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			SVOCs					**SVOCs**					
			Hexachlorobenzene	4.7E-07		1.8E-06	2.2E-06	Hexachlorobenzene	Liver	4.3E-03		1.6E-02	2.0E-02
			Acenaphthylene					Acenaphthylene	Kidney	7.2E-05		3.6E-04	4.3E-04
			Benz(a)anthracene	3.1E-07		1.5E-06	1.8E-06	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	2.4E-06		1.2E-05	1.4E-05	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	3.1E-07		1.5E-06	1.9E-06	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	1.1E-04		5.4E-04	6.4E-04
			Benzo(k)fluoranthene	1.1E-08		5.6E-08	6.7E-08	Benzo(k)fluoranthene		NA		NA	
			Chrysene	3.1E-09		1.5E-08	1.8E-08	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	5.2E-07		2.6E-06	3.1E-06	Dibenz(a,h)anthracene		NA		NA	
			Dibenzofuran					Dibenzofuran	Liver	2.3E-03		8.7E-03	1.1E-02
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	2.6E-03		1.0E-02	1.3E-02
			1,4-Dichlorobenzene	6.6E-08		2.5E-07	3.2E-07	1,4-Dichlorobenzene	Skin/Blood	1.1E-03		4.0E-03	5.1E-03
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	4.3E-04		2.1E-03	2.5E-03
			Indeno(1,2,3-cd)pyrene	1.2E-07		5.9E-07	7.1E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	4.5E-03		2.2E-02	2.7E-02
			Naphthalene					Naphthalene	Decreased body weight	2.7E-02		1.3E-01	1.6E-01
			Phenanthrene					Phenanthrene	Kidney	9.0E-04		4.4E-03	5.3E-03
			Pesticides					**Pesticides**					
			Dieldrin	6.1E-09		NA	6.1E-09	Dieldrin	Liver	8.9E-05		NA	8.9E-05
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	5.9E-04		3.1E-03	3.7E-03
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	2.5E-03		1.3E-02	1.6E-02
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	5.8E-03		3.0E-02	3.6E-02
			Aroclor 1254					Aroclor 1254	Immune System	3.5E-03		1.9E-02	2.2E-02
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	5.1E-03		2.7E-02	3.2E-02
			Sum of PCBs	9.3E-08		4.9E-07	5.9E-07	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.5E-06		2.8E-06	5.3E-06	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	7.7E-06		2.4E-05	3.2E-05	(South Basin Sediment Total)		0.21		0.32	0.54
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Copper	NA		NA		Copper	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	NA	NA		NA	
			Methylmercury	NA		NA		Methylmercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	

TABLE 9.2.RME
Summary of Receptor Risks and Hazards for COPCs
Young Child: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	NA	NA		NA	
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1260	NA		NA		Aroclor 1260	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			(Wetland SYW-12 Sediment Total)					(Wetland SYW-12 Sediment Total)					
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Barium	NA		NA		Barium	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	NA	NA		NA	
			Methylmercury	NA		NA		Methylmercury	NA	NA		NA	
			SVOCs					**SVOCs**					
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	NA	NA		NA	
			1,4-Dichlorobenzene	NA		NA		1,4-Dichlorobenzene	NA	NA		NA	
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			Pesticides					**Pesticides**					
			Aldrin	NA		NA		Aldrin	NA	NA		NA	
			Dieldrin	NA		NA		Dieldrin	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	NA	NA		NA	
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1260	NA		NA		Aroclor 1260	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Wetland SYW-19 Sediment Total)					(Wetland SYW-19 Sediment Total)					
							Total Risk Across Sediment: 3.6E-05						Total Hazard Across Sediment: 0.76
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	

TABLE 9.2.RME
Summary of Receptor Risks and Hazards for COPCs
Young Child: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			(Dredge Spoils - Surface Total)					(Dredge Spoils - Surface Total)					
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Naphthalene	NA		NA		Naphthalene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1268	NA		NA		Aroclor 1268	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Dredge Spoils - Subsurface Total)	NA		NA		(Dredge Spoils - Subsurface Total)	NA	NA		NA	
			Total Risk Across Dredge Spoil Soils					Total Hazard Across Dredge Spoil Soils					
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					
			Cadmium					Cadmium	Kidneys	2.3E-03		1.2E-02	1.5E-02
			Chromium					Chromium	None reported	8.2E-04		8.6E-03	9.4E-03
			Manganese					Manganese	Central Nervous System	6.1E-04		2.0E-03	2.6E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	1.4E-05		1.8E-06	1.6E-05
			Total Mercury					Total mercury	Immune System	2.9E-05		5.4E-05	8.3E-05
			VOCs					**VOCs**					
			Benzene	3.1E-09		6.6E-09	9.8E-09	Benzene	Immune System/Blood	2.1E-04		4.7E-04	6.8E-04
			Chlorobenzene					Chlorobenzene	Liver	3.3E-05		1.6E-04	1.9E-04
			Chloroform					Chloroform	Liver	6.9E-05		8.5E-05	1.5E-04
			SVOCs					**SVOCs**					
			Bromodichloromethane	1.4E-09		1.4E-09	2.8E-09	Bromodichloromethane	Kidney	1.3E-05		1.3E-05	2.5E-05
			1,2-Dichlorobenzene					1,2-Dichlorobenzene	NOAEL	6.8E-06		5.5E-05	6.1E-05
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	6.3E-04		7.0E-03	7.7E-03

TABLE 9.2.RME
Summary of Receptor Risks and Hazards for COPCs
Young Child: Reasonable Maximum Exposure Recreational
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			1,4-Dichlorobenzene	1.4E-09		1.1E-08	1.2E-08	1,4-Dichlorobenzene	Skin/Blood	2.1E-05		1.8E-04	2.0E-04
			1,2,4-Trichlorobenzene					1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	6.1E-05		9.9E-04	1.0E-03
			(Surface Water - Total)	6.0E-09		1.9E-08	2.5E-08	(Surface Water - Total)		0.005		0.03	0.04
							Total Risk Across Surface Water	2.5E-08					Total Hazard Across Surface Water 0.04
							Total Risk Across All Media and All Exposure Routes	2.8E-04					Total Hazard Index Across All Media and All Exposure Routes 29.1

Total [Lungs] HI =	0.03	Total [DNI] HI =	6.01	Total [Kidney] HI =	0.03	Total [Blood] HI =	1.68
Total [Immune System] HI =	16.2	Total [Birth Weight] HI =	3.82	Total [CNS] HI =	0.04	Total [Body Weight] HI =	0.19
Total [Skin] HI =	0.25	Total [NOAEL] HI =	0.01	Total [Liver] HI =	0.50	Total [Whole Body] HI =	1.74

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 9.3.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Older Child (6 to < 18)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	9.6E-01		NA	9.6E-01
			Arsenic (inorganic)	8.0E-06		NA	8.0E-06	Arsenic (inorganic)	Skin	1.0E-01		NA	1.0E-01
			Chromium	NA		NA		Chromium	None reported	7.3E-02		NA	7.3E-02
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	1.1E-01		NA	1.1E-01
			Manganese	NA		NA		Manganese	Central Nervous System	8.9E-03		NA	8.9E-03
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	Developmental Neuropsychological Impairment	4.2E+00		NA	4.2E+00
			Selenium	NA		NA		Selenium	Whole Body	1.1E-01		NA	1.1E-01
			Vanadium	NA		NA		Vanadium	Not Reported/Unknown	3.5E-02		NA	3.5E-02
			Zinc	NA		NA		Zinc	Blood	5.6E-02		NA	5.6E-02
			SVOCs					**SVOCs**					
			bis(2-ethylhexyl)phthalate	2.1E-06		NA	2.1E-06	bis(2-ethylhexyl)phthalate	Liver	4.5E-02		NA	4.5E-02
			Hexachlorobenzene	1.4E-06		NA	1.4E-06	Hexachlorobenzene	Liver	6.3E-03		NA	6.3E-03
			Pesticides					**Pesticides**					
			2,4'-DDE	NA		NA		2,4'-DDE		NA		NA	
			4,4'-DDD	2.1E-07		NA	2.1E-07	4,4'-DDD	Liver	1.7E-03		NA	1.7E-03
			4,4'-DDE	7.8E-07		NA	7.8E-07	4,4'-DDE	Liver	1.9E-02		NA	1.9E-02
			4,4'-DDT	2.1E-07		NA	2.1E-07	4,4'-DDT	Liver	7.4E-03		NA	7.4E-03
			Aldrin	2.9E-06		NA	2.9E-06	Aldrin	Liver	3.3E-02		NA	3.3E-02
			delta-BHC	NA		NA		delta-BHC	Liver/kidney	3.3E-03		NA	3.3E-03
			Dieldrin	4.1E-06		NA	4.1E-06	Dieldrin	Liver	3.0E-02		NA	3.0E-02
			Heptachlor epoxide	2.5E-06		NA	2.5E-06	Heptachlor epoxide	Liver	1.2E-01		NA	1.2E-01
			Sum of chlordanes	2.3E-07		NA	2.3E-07	Sum of chlordanes	Liver	7.5E-03		NA	7.5E-03
			PCBs					**PCBs**					
			Aroclor 1016	NA		NA							
			Aroclor 1242	NA		NA							
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	2.6E+00		NA	2.6E+00
			Aroclor 1248	NA		NA							
			Aroclor 1260	NA		NA							
			Aroclors 1254 & 1260	NA		NA							
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	1.1E+01		NA	1.1E+01
			Sum of PCBs	1.2E-04		NA	1.2E-04	Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.0E-04		NA	2.0E-04	TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Fish Tissue - Total)	3.4E-04			3.4E-04	(Fish Tissue - Total)		19.8			19.8
						Total Risk Across Fish Tissue	3.4E-04					Total Hazard Across Fish Tissue	19.8

TABLE 9.3.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	6.4E-03		NA	6.4E-03
			Arsenic	2.8E-07		1.2E-06	1.5E-06	Arsenic	Skin	3.6E-03		1.6E-02	1.9E-02
			Barium	NA		NA		Barium	Cardiovascular System	6.0E-04		NA	6.0E-04
			Cadmium	NA		NA		Cadmium	Kidneys	5.7E-04		3.3E-03	3.9E-03
			Chromium	NA		NA		Chromium	None reported	3.0E-03		NA	3.0E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	5.4E-03		NA	5.4E-03
			Manganese	NA		NA		Manganese	Central Nervous System	3.3E-03		NA	3.3E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	5.6E-06		NA	5.6E-06
			Total Mercury	NA		NA		Total mercury	Immune System	1.8E-03		NA	1.8E-03
			Thallium	NA		NA		Thallium	NOAEL; various	1.2E-03		NA	1.2E-03
			VOCs					**VOCs**					
			Benzene	2.4E-10		NA	2.4E-10	Benzene	Immune System/Blood	8.4E-06		NA	8.4E-06
			SVOCs					**SVOCs**					
			Hexachlorobenzene	3.1E-08		4.5E-07	4.9E-07	Hexachlorobenzene	Liver	1.4E-04		2.1E-03	2.2E-03
			Benz(a)anthracene	5.7E-09		1.1E-07	1.1E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	5.5E-08		1.0E-06	1.1E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	8.3E-09		1.6E-07	1.7E-07	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.7E-08		3.2E-07	3.4E-07	Dibenz(a,h)anthracene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	5.5E-06		1.0E-04	1.1E-04
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	5.8E-04		1.2E-02	1.2E-02
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	4.9E-04		9.9E-03	1.0E-02
			Sum of PCBs	8.3E-09		1.7E-07	1.8E-07	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.4E-08		6.2E-08	7.6E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	4.2E-07		3.5E-06	3.9E-06	(North Basin Sediment Total)		0.03		0.04	0.07
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	3.0E-03		NA	3.0E-03
			Arsenic	4.9E-07		2.1E-06	2.6E-06	Arsenic	Skin	6.4E-03		2.8E-02	3.4E-02
			Cadmium	NA		NA		Cadmium	Kidneys	2.4E-03		1.4E-02	1.6E-02
			Chromium	NA		NA		Chromium	None reported	8.8E-03		NA	8.8E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	4.0E-05		NA	4.0E-05
			Iron	NA		NA		Iron	Liver, spleen, lymph system	2.6E-02		NA	2.6E-02
			Manganese	NA		NA		Manganese	Central Nervous System	5.0E-03		NA	5.0E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	2.8E-03		NA	2.8E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	8.6E-05		NA	8.6E-05
			Thallium	NA		NA		Thallium	NOAEL; various	7.0E-03		NA	7.0E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	8.8E-06		1.7E-04	1.8E-04	Benzo(a)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	4.6E-05		8.7E-04	9.2E-04
			Acenaphthylene					Acenaphthylene	Kidney	3.7E-05		6.9E-04	7.3E-04
			Benz(a)anthracene	8.9E-07		1.7E-05	1.8E-05	Benz(a)anthracene		NA		NA	

TABLE 9.3.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Benzo(b)fluoranthene	1.1E-06		2.0E-05	2.2E-05	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	1.4E-04		2.6E-03	2.7E-03
			Benzo(k)fluoranthene	4.0E-08		7.6E-07	8.0E-07	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.6E-06		2.9E-05	3.1E-05	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	5.2E-07		9.8E-06	1.0E-05	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene					Naphthalene	Decreased body weight	6.0E-05		1.1E-03	1.2E-03
			Phenanthrene					Phenanthrene	Kidney	3.0E-04		5.8E-03	6.1E-03
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	8.3E-08		3.6E-07	4.5E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-6 Sediment Total)	1.3E-05		2.5E-04	2.6E-04	(Wetland SYW-6 Sediment Total)		0.06		0.05	0.12
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	2.6E-03		NA	2.6E-03
			Antimony	NA		NA		Antimony	Whole Body/Blood	3.6E-03		NA	3.6E-03
			Arsenic	8.5E-07		3.7E-06	4.5E-06	Arsenic	Skin	1.1E-02		4.8E-02	5.9E-02
			Chromium	NA		NA		Chromium	None reported	3.0E-03		NA	3.0E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.5E-02		NA	1.5E-02
			Manganese	NA		NA		Manganese	Central Nervous System	4.7E-03		NA	4.7E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	2.6E-03		NA	2.6E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	8.0E-05		NA	8.0E-05
			Thallium	NA		NA		Thallium	NOAEL; various	9.6E-03		NA	9.6E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	3.6E-08		6.8E-07	7.2E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	3.8E-07		7.1E-06	7.5E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	3.1E-08		5.9E-07	6.2E-07	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	8.9E-08		1.7E-06	1.8E-06	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	2.3E-08		4.4E-07	4.6E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	2.8E-03		5.8E-02	6.0E-02
			Sum of PCBs	2.2E-08		4.5E-07	4.7E-07	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	8.5E-08		3.7E-07	4.6E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-10 Sediment Total)	1.5E-06		1.5E-05	1.7E-05	(Wetland SYW-10 Sediment Total)		0.05		0.11	0.16
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	3.6E-04		NA	3.6E-04
			Antimony					Antimony	Whole Body/Blood	6.8E-04		NA	6.8E-04
			Arsenic	2.8E-07		1.2E-06	1.5E-06	Arsenic	Skin	3.7E-03		1.6E-02	2.0E-02
			Barium					Barium	Cardiovascular System	1.1E-03		NA	1.1E-03
			Cadmium					Cadmium	Kidneys	3.5E-04		2.0E-03	2.4E-03
			Chromium					Chromium	None reported	6.1E-03		NA	6.1E-03
			Copper					Copper	Liver/Kidneys/Forestomach	2.1E-04		NA	2.1E-04
			Cyanide					Cyanide	Whole Body/Blood	6.8E-06		NA	6.8E-06
			Iron					Iron	Liver, spleen, lymph system	3.6E-03		NA	3.6E-03
			Lead					Lead	CNS, blood, whole body	NA		NA	
			Manganese					Manganese	Central Nervous System	1.1E-03		NA	1.1E-03

TABLE 9.3.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	2.0E-05		NA	2.0E-05
			Total Mercury					Total mercury	Immune System	5.6E-03		NA	5.6E-03
			Nickel					Nickel	Whole Body/Major Organs	3.3E-04		NA	3.3E-04
			Thallium					Thallium	NOAEL; various	5.4E-04		NA	5.4E-04
			Vanadium					Vanadium	Not Reported/Unknown	3.8E-04		NA	3.8E-04
			VOCs					**VOCs**					
			Benzene	5.2E-08		NA	5.2E-08	Benzene	Immune System/Blood	1.8E-03		NA	1.8E-03
			Chlorobenzene					Chlorobenzene	Liver	8.0E-04		NA	8.0E-04
			Methylene chloride	9.7E-10		NA	9.7E-10	Methylene chloride	Liver	1.3E-05		NA	1.3E-05
			Xylenes					Xylenes	NOAEL; CNS	1.5E-05		NA	1.5E-05
			SVOCs					**SVOCs**					
			Dibenzofuran					Dibenzofuran	Liver	4.0E-04		5.9E-03	6.3E-03
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	4.6E-04		6.7E-03	7.2E-03
			1,4-Dichlorobenzene	2.3E-08		3.4E-07	3.6E-07	1,4-Dichlorobenzene	Skin/Blood	1.9E-04		2.7E-03	2.9E-03
			Hexachlorobenzene	1.6E-07		2.4E-06	2.5E-06	Hexachlorobenzene	Liver	7.4E-04		1.1E-02	1.2E-02
			Acenaphthylene					Acenaphthylene	Kidney	1.3E-05		2.4E-04	2.5E-04
			Benz(a)anthracene	1.1E-07		2.1E-06	2.2E-06	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	8.3E-07		1.6E-05	1.6E-05	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.1E-07		2.1E-06	2.2E-06	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	1.9E-05		3.6E-04	3.8E-04
			Benzo(k)fluoranthene	4.0E-09		7.5E-08	7.9E-08	Benzo(k)fluoranthene		NA		NA	
			Chrysene	1.1E-09		2.0E-08	2.1E-08	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	1.8E-07		3.4E-06	3.6E-06	Dibenz(a,h)anthracene		NA		NA	
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	7.5E-05		1.4E-03	1.5E-03
			Indeno(1,2,3-cd)pyrene	4.2E-08		8.0E-07	8.4E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	7.9E-04		1.5E-02	1.6E-02
			Naphthalene					Naphthalene	Decreased body weight	4.7E-03		8.9E-02	9.4E-02
			Phenanthrene					Phenanthrene	Kidney	1.6E-04		3.0E-03	3.1E-03
			Pesticides					**Pesticides**					
			Dieldrin	2.1E-09		NA	2.1E-09	Dieldrin	Liver	1.6E-05		NA	1.6E-05
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	1.0E-04		2.1E-03	2.2E-03
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	4.4E-04		9.0E-03	9.4E-03
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	1.0E-03		2.1E-02	2.2E-02
			Aroclor 1254					Aroclor 1254	Immune System	6.2E-04		1.3E-02	1.3E-02
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	8.9E-04		1.8E-02	1.9E-02
			Sum of PCBs	3.2E-08		6.6E-07	7.0E-07	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	8.6E-07		3.8E-06	4.6E-06	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	2.7E-06		3.3E-05	3.5E-05	(South Basin Sediment Total)		0.04		0.22	0.25
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	7.8E-04		NA	7.8E-04
			Arsenic	1.4E-07		6.3E-07	7.8E-07	Arsenic	Skin	1.9E-03		8.2E-03	1.0E-02
			Cadmium	NA		NA		Cadmium	Kidneys	3.6E-03		2.1E-02	2.5E-02
			Chromium	NA		NA		Chromium	None reported	9.0E-03		NA	9.0E-03

TABLE 9.3.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Copper	NA		NA		Copper	Liver/Kidneys/Forestomach	6.0E-04		NA	6.0E-04
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	3.8E-06		NA	3.8E-06
			Iron	NA		NA		Iron	Liver, spleen, lymph system	5.1E-03		NA	5.1E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.0E-03		NA	1.0E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	8.9E-04		NA	8.9E-04
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	2.7E-05		NA	2.7E-05
			Thallium	NA		NA		Thallium	NOAEL; various	9.0E-04		NA	9.0E-04
			SVOCs					**SVOCs**					
			Benz(a)anthracene	5.2E-08		9.8E-07	1.0E-06	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	5.1E-07		9.6E-06	1.0E-05	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	3.5E-08		6.7E-07	7.0E-07	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.9E-08		3.6E-07	3.8E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	3.4E-08		6.5E-07	6.8E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	2.2E-05		4.2E-04	4.4E-04
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	3.6E-04		7.3E-03	7.6E-03
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	1.9E-03		3.8E-02	4.0E-02
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	9.8E-04		2.0E-02	2.1E-02
			Sum of PCBs	2.8E-08		5.7E-07	6.0E-07	Sum of PCBs		NA		NA	
			(Wetland SYW-12 Sediment Total)	8.2E-07		1.3E-05	1.4E-05	(Wetland SYW-12 Sediment Total)		0.03		0.10	0.12
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**					**Inorganics**					
			Antimony					Antimony	Whole Body/Blood	7.4E-04		NA	7.4E-04
			Arsenic	2.0E-07		8.6E-07	1.1E-06	Arsenic	Skin	2.5E-03		1.1E-02	1.4E-02
			Barium					Barium	Cardiovascular System	6.5E-04		NA	6.5E-04
			Cadmium					Cadmium	Kidneys	2.6E-04		1.5E-03	1.8E-03
			Chromium					Chromium	None reported	2.1E-03		NA	2.1E-03
			Iron					Iron	Liver, spleen, lymph system	3.1E-03		NA	3.1E-03
			Manganese					Manganese	Central Nervous System	1.2E-03		NA	1.2E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.3E-02		NA	1.3E-02
			Methylmercury	NA		NA		Methylmercury	europsychological Impairment	3.8E-04		NA	3.8E-04
			SVOCs					**SVOCs**					
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	3.8E-04		5.5E-03	5.9E-03
			1,4-Dichlorobenzene	3.3E-09		4.8E-08	5.1E-08	1,4-Dichlorobenzene	Skin/Blood	2.6E-05		3.9E-04	4.1E-04
			Hexachlorobenzene	6.8E-08		9.9E-07	1.1E-06	Hexachlorobenzene	Liver	3.1E-04		4.5E-03	4.8E-03
			Benz(a)anthracene	1.3E-07		2.4E-06	2.5E-06	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.2E-06		2.2E-05	2.3E-05	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.0E-07		1.9E-06	2.0E-06	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	1.7E-05		3.2E-04	3.3E-04
			Benzo(k)fluoranthene	8.9E-09		1.7E-07	1.8E-07	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	3.0E-07		5.6E-06	5.9E-06	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	6.7E-08		1.3E-06	1.3E-06	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene					Phenanthrene	Kidney	4.9E-05		9.3E-04	9.8E-04

TABLE 9.3.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Pesticides					**Pesticides**					
			Aldrin	1.0E-08		NA	1.0E-08	Aldrin	Liver	1.1E-04		NA	1.1E-04
			Dieldrin	7.2E-09		NA	7.2E-09	Dieldrin	Liver	5.2E-05		NA	5.2E-05
			PCBs					**PCBs**					
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	9.0E-04		1.8E-02	1.9E-02
			Aroclor 1254					Aroclor 1254	Immune System	2.7E-03		5.6E-02	5.9E-02
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	1.4E-03		2.9E-02	3.0E-02
			Sum of PCBs	4.1E-08		8.4E-07	8.8E-07	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.0E-06		8.8E-06	1.1E-05	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-19 Sediment Total)	4.1E-06		4.5E-05	4.9E-05	(Wetland SYW-19 Sediment Total)		0.03		0.13	0.16
						Total Risk Across Sediment	3.8E-04					Total Hazard Across Sediment	0.88
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	3.4E-03		NA	3.4E-03
			Arsenic	6.1E-07		2.6E-06	3.3E-06	Arsenic	Skin	7.8E-03		3.4E-02	4.2E-02
			Chromium	NA		NA		Chromium	None reported	2.7E-03		NA	2.7E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.6E-02		NA	1.6E-02
			Manganese	NA		NA		Manganese	Central Nervous System	4.3E-03		NA	4.3E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	3.7E-03		NA	3.7E-03
			SVOCs					**SVOCs**					
			Hexachlorobenzene	3.2E-08		4.6E-07	4.9E-07	Hexachlorobenzene	Liver	1.4E-04		2.1E-03	2.2E-03
			Benzo(a)pyrene	4.6E-08		8.6E-07	9.1E-07	Benzo(a)pyrene		NA		NA	
			(Dredge Spoils - Surface Total)	6.8E-07		4.0E-06	4.7E-06	(Dredge Spoils - Surface Total)		0.04		0.04	0.07
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Naphthalene	NA		NA		Naphthalene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	

TABLE 9.3.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1268	NA		NA		Aroclor 1268	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Dredge Spoils - Subsurface Total)					(Dredge Spoils - Subsurface Total)	NA				
						Total Risk Across Dredge Spoils	4.7E-06					Total Hazard Across Dredge Spoils	0.075
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					
			Cadmium					Cadmium	Kidneys	8.1E-04		8.4E-03	9.2E-03
			Chromium					Chromium	None reported	2.8E-04		5.9E-03	6.2E-03
			Manganese					Manganese	Central Nervous System	2.1E-04		1.4E-03	1.6E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	4.8E-06		1.3E-06	6.1E-06
			Total Mercury					Total mercury	Immune System	1.0E-05		3.7E-05	4.7E-05
			VOCs					**VOCs**					
			Benzene	2.0E-09		9.1E-09	1.1E-08	Benzene	Immune System/Blood	7.2E-05		3.2E-04	3.9E-04
			Chlorobenzene					Chlorobenzene	Liver	1.2E-05		1.1E-04	1.2E-04
			Chloroform					Chloroform	Liver	2.4E-05		5.9E-05	8.3E-05
			SVOCs					**SVOCs**					
			Bromodichloromethane	9.3E-10		1.9E-09	2.8E-09	Bromodichloromethane	Kidney	4.4E-06		8.8E-06	1.3E-05
			1,2-Dichlorobenzene					1,2-Dichlorobenzene	NOAEL	2.4E-06		3.7E-05	4.0E-05
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	2.2E-04		4.8E-03	5.1E-03
			1,4-Dichlorobenzene	9.3E-10		1.5E-08	1.6E-08	1,4-Dichlorobenzene	Skin/Blood	7.5E-06		1.2E-04	1.3E-04
			1,2,4-Trichlorobenzene					1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	2.1E-05		6.8E-04	7.0E-04
			(Surface Water - Total)	3.9E-09		2.6E-08	3.0E-08	(Surface Water - Total)		0.002		0.02	0.02
						Total Risk Across Surface Water	3.0E-08					Total Hazard Across Surface Water	0.02
						Total Risk Across All Media and All Exposure Routes	7.2E-04					Total Hazard Across All Media and All Exposure Routes	20.73

Total [Lungs] HI =	0.02	Total [DNI] HI =	4.20	Total [Kidney] HI =	0.07	Total [Blood] HI =	1.15
Total [Immune System] HI =	11.5	Total [Birth Weight] HI =	2.69	Total [CNS] HI =	0.03	Total [Body Weight] HI =	0.11
Total [Skin] HI =	0.32	Total [NOAEL] HI =	0.02	Total [Liver] HI =	0.39	Total [Whole Body] HI =	1.20

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 9.4.RME
Summary of Receptor Risks and Hazards for COPCs
Construction Worker: Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA	NA	Antimony	NA	NA		NA	NA
			Arsenic	NA		NA	NA	Arsenic	NA	NA		NA	NA
			Chromium	NA		NA	NA	Chromium	NA	NA		NA	NA
			Cyanide	NA		NA	NA	Cyanide	NA	NA		NA	NA
			Manganese	NA		NA	NA	Manganese	NA	NA		NA	NA
			Mercury (as methylmercury)	NA		NA	NA	Mercury (as methylmercury)	NA	NA		NA	NA
			Selenium	NA		NA	NA	Selenium	NA	NA		NA	NA
			Vanadium	NA		NA	NA	Vanadium	NA	NA		NA	NA
			Zinc	NA		NA	NA	Zinc	NA	NA		NA	NA
			SVOCs					**SVOCs**					
			bis(2-ethylhexyl)phthalate	NA		NA	NA	bis(2-ethylhexyl)phthalate	NA	NA		NA	NA
			Hexachlorobenzene	NA		NA	NA	Hexachlorobenzene	NA	NA		NA	NA
			Pesticides					**Pesticides**					
			2,4'-DDE	NA		NA	NA	2,4'-DDE	NA	NA		NA	NA
			4,4'-DDD	NA		NA	NA	4,4'-DDD	NA	NA		NA	NA
			4,4'-DDE	NA		NA	NA	4,4'-DDE	NA	NA		NA	NA
			4,4'-DDT	NA		NA	NA	4,4'-DDT	NA	NA		NA	NA
			Aldrin	NA		NA	NA	Aldrin	NA	NA		NA	NA
			delta-BHC	NA		NA	NA	delta-BHC	NA	NA		NA	NA
			Dieldrin	NA		NA	NA	Dieldrin	NA	NA		NA	NA
			Heptachlor epoxide	NA		NA	NA	Heptachlor epoxide	NA	NA		NA	NA
			Sum of chlordanes	NA		NA	NA	Sum of chlordanes	NA	NA		NA	NA
			PCBs					**PCBs**					
			Aroclor 1016	NA		NA	NA	Aroclor 1016	NA	NA		NA	NA
			Aroclor 1242	NA		NA	NA	Aroclor 1242	NA	NA		NA	NA
			Sum of Low MW PCBs	NA		NA	NA	Sum of Low MW PCBs	NA	NA		NA	NA
			Aroclor 1248	NA		NA	NA	Aroclor 1248	NA	NA		NA	NA
			Aroclor 1260	NA		NA	NA	Aroclor 1260	NA	NA		NA	NA
			Aroclors 1254 & 1260	NA		NA	NA	Aroclors 1254 & 1260	NA	NA		NA	NA
			Sum of High MW PCBs	NA		NA	NA	Sum of High MW PCBs	NA	NA		NA	NA
			Sum of PCBs	NA		NA	NA	Sum of PCBs	NA	NA		NA	NA
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA	NA	TEQ as 2,3,7,8-TCDD	NA	NA		NA	NA
							Total Risk Across Fish Tissue						Total Hazard Across Fish Tissue

TABLE 9.4.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	7.4E-03		NA	7.4E-03
			Arsenic	5.3E-08		2.5E-08	7.8E-08	Arsenic	Skin	4.1E-03		1.9E-03	6.1E-03
			Barium	NA		NA		Barium	Cardiovascular System	7.0E-04		NA	7.0E-04
			Cadmium	NA		NA		Cadmium	Kidneys	6.6E-04		4.1E-04	1.1E-03
			Chromium	NA		NA		Chromium	None reported	3.5E-03		NA	3.5E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	6.2E-03		NA	6.2E-03
			Manganese	NA		NA		Manganese	Central Nervous System	3.8E-03		NA	3.8E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	6.4E-06		NA	6.4E-06
			Total Mercury	NA		NA		Total mercury	Immune System	2.0E-03		NA	2.0E-03
			Thallium	NA		NA		Thallium	NOAEL; various	1.4E-03		NA	1.4E-03
			VOCs					**VOCs**					
			Benzene	4.5E-11		NA	4.5E-11	Benzene	Immune System/Blood	9.6E-06		NA	9.6E-06
			SVOCs					**SVOCs**					
			Hexachlorobenzene	6.0E-09		9.3E-09	1.5E-08	Hexachlorobenzene	Liver	1.6E-04		2.5E-04	4.2E-04
			Benz(a)anthracene	1.1E-09		2.2E-09	3.3E-09	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.0E-08		2.1E-08	3.2E-08	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.6E-09		3.2E-09	4.8E-09	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	3.3E-09		6.6E-09	9.8E-09	Dibenz(a,h)anthracene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	6.3E-06		1.3E-05	1.9E-05
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	6.7E-04		1.4E-03	2.1E-03
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	5.6E-04		1.2E-03	1.8E-03
			Sum of PCBs	1.6E-09		3.5E-09	5.1E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.7E-09		1.3E-09	4.0E-09	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	8.0E-08		7.2E-08	1.5E-07	(North Basin Sediment Total)		0.03		0.01	0.04
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	3.5E-03		NA	3.5E-03
			Arsenic	9.4E-08		4.4E-08	1.4E-07	Arsenic	Skin	7.3E-03		3.4E-03	1.1E-02
			Cadmium	NA		NA		Cadmium	Kidneys	2.8E-03		1.7E-03	4.5E-03
			Chromium	NA		NA		Chromium	None reported	1.0E-02		NA	1.0E-02
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	4.6E-05		NA	4.6E-05
			Iron	NA		NA		Iron	Liver, spleen, lymph system	3.0E-02		NA	3.0E-02
			Manganese	NA		NA		Manganese	Central Nervous System	5.8E-03		NA	5.8E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	0.0E+00		NA	
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	3.2E-03		NA	3.2E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	9.8E-05		NA	9.8E-05
			Thallium	NA		NA		Thallium	NOAEL; various	8.1E-03		NA	8.1E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	1.7E-06		3.4E-06	5.1E-06	Benzo(a)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	5.3E-05		1.1E-04	1.6E-04
			Acenaphthylene					Acenaphthylene	Kidney	4.2E-05		8.5E-05	1.3E-04
			Benz(a)anthracene	1.7E-07		3.5E-07	5.2E-07	Benz(a)anthracene		NA		NA	
			Benzo(b)fluoranthene	2.1E-07		4.2E-07	6.3E-07	Benzo(b)fluoranthene		NA		NA	

TABLE 9.4.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	1.6E-04		3.2E-04	4.8E-04
			Benzo(k)fluoranthene	7.7E-09		1.5E-08	2.3E-08	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	3.0E-07		6.0E-07	9.0E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	9.9E-08		2.0E-07	3.0E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene					Naphthalene	Decreased body weight	6.9E-05		1.4E-04	2.1E-04
			Phenanthrene					Phenanthrene	Kidney	3.5E-04		7.1E-04	1.1E-03
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.6E-08		7.4E-09	2.3E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-6 Sediment Total)	2.6E-06		5.0E-06	7.6E-06	(Wetland SYW-6 Sediment Total)		0.07		0.01	0.08
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	3.0E-03		NA	3.0E-03
			Antimony	NA		NA		Antimony	Whole Body/Blood	4.1E-03		NA	4.1E-03
			Arsenic	1.6E-07		7.6E-08	2.4E-07	Arsenic	Skin	1.3E-02		5.9E-03	1.9E-02
			Chromium	NA		NA		Chromium	None reported	3.4E-03		NA	3.4E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.7E-02		NA	1.7E-02
			Manganese	NA		NA		Manganese	Central Nervous System	5.4E-03		NA	5.4E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	0.0E+00		NA	
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	3.0E-03		NA	3.0E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	9.2E-05		NA	9.2E-05
			Thallium	NA		NA		Thallium	NOAEL; various	1.1E-02		NA	1.1E-02
			SVOCs					**SVOCs**					
			Benz(a)anthracene	6.9E-09		1.4E-08	2.1E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	7.2E-08		1.5E-07	2.2E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	6.0E-09		1.2E-08	1.8E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.7E-08		3.5E-08	5.2E-08	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	4.4E-09		8.9E-09	1.3E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	3.3E-03		7.1E-03	1.0E-02
			Sum of PCBs	4.2E-09		9.2E-09	1.3E-08	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.6E-08		7.6E-09	2.4E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-10 Sediment Total	2.9E-07		3.1E-07	6.0E-07	(Wetland SYW-10 Sediment Total)		0.06		0.01	0.08
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	1.3E-03		NA	1.3E-03
			Antimony					Antimony	Whole Body/Blood	2.5E-03		NA	2.5E-03
			Arsenic	1.7E-07		8.0E-08	2.5E-07	Arsenic	Skin	1.3E-02		6.2E-03	2.0E-02
			Barium					Barium	Cardiovascular System	4.2E-03		NA	4.2E-03
			Cadmium					Cadmium	Kidneys	1.3E-03		7.8E-04	2.0E-03
			Chromium					Chromium	None reported	2.2E-02		NA	2.2E-02
			Copper					Copper	Liver/Kidneys/Forestomach	7.8E-04		NA	7.8E-04
			Cyanide					Cyanide	Whole Body/Blood	2.4E-05		NA	2.4E-05
			Iron					Iron	Liver, spleen, lymph system	1.3E-02		NA	1.3E-02
			Lead					Lead	CNS, blood, whole body	NA		NA	
			Manganese					Manganese	Central Nervous System	4.1E-03		NA	4.1E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	7.3E-05		NA	7.3E-05

TABLE 9.4.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Total Mercury					Total mercury	Immune System	2.0E-02		NA	2.0E-02
			Nickel					Nickel	Whole Body/Major Organs	1.2E-03		NA	1.2E-03
			Thallium					Thallium	NOAEL; various	2.0E-03		NA	2.0E-03
			Vanadium					Vanadium	Not Reported/Unknown	1.4E-03		NA	1.4E-03
			VOCs					**VOCs**					
			Benzene	3.1E-08		NA	3.1E-08	Benzene	Immune System/Blood	6.6E-03		NA	6.6E-03
			Chlorobenzene					Chlorobenzene	Liver	2.9E-03		NA	2.9E-03
			Methylene chloride	5.9E-10		NA	5.9E-10	Methylene chloride	Liver	4.6E-05		NA	4.6E-05
			Xylenes					Xylenes	NOAEL; CNS	5.3E-05		NA	5.3E-05
			SVOCs					**SVOCs**					
			Hexachlorobenzene	9.8E-08		1.5E-07	2.5E-07	Hexachlorobenzene	Liver	2.7E-03		4.2E-03	6.9E-03
			Dibenzofuran					Dibenzofuran	Liver	1.5E-03		2.3E-03	3.7E-03
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	1.7E-03		2.6E-03	4.3E-03
			1,4-Dichlorobenzene	1.4E-08		2.2E-08	3.5E-08	1,4-Dichlorobenzene	Skin/Blood	6.8E-04		1.0E-03	1.7E-03
			Acenaphthylene					Acenaphthylene	Kidney	4.6E-05		9.2E-05	1.4E-04
			Benz(a)anthracene	6.6E-08		1.3E-07	2.0E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	5.0E-07		1.0E-06	1.5E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	6.6E-08		1.3E-07	2.0E-07	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	6.9E-05		1.4E-04	2.1E-04
			Benzo(k)fluoranthene	2.4E-09		4.8E-09	7.2E-09	Benzo(k)fluoranthene		NA		NA	
			Chrysene	6.5E-10		1.3E-09	2.0E-09	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	1.1E-07		2.2E-07	3.3E-07	Dibenz(a,h)anthracene		NA		NA	
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	2.7E-04		5.5E-04	8.2E-04
			Indeno(1,2,3-cd)pyrene	2.5E-08		5.1E-08	7.7E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	2.8E-03		5.8E-03	8.6E-03
			Naphthalene					Naphthalene	Decreased body weight	1.7E-02		3.4E-02	5.1E-02
			Phenanthrene					Phenanthrene	Kidney	5.7E-04		1.1E-03	1.7E-03
			Pesticides					**Pesticides**					
			Dieldrin	1.3E-09		NA	1.3E-09	Dieldrin	Liver	5.6E-05		NA	5.6E-05
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	3.8E-04		8.2E-04	1.2E-03
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	1.6E-03		3.5E-03	5.1E-03
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	3.6E-03		7.9E-03	1.2E-02
			Aroclor 1254					Aroclor 1254	Immune System	2.2E-03		4.9E-03	7.1E-03
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	3.2E-03		7.0E-03	1.0E-02
			Sum of PCBs	2.0E-08		4.3E-08	6.2E-08	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	5.2E-07		2.4E-07	7.6E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	1.6E-06		2.1E-06	3.7E-06	(South Basin Sediment Total)		0.14		0.08	0.22
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	2.8E-03		NA	2.8E-03
			Arsenic	8.7E-08		4.1E-08	1.3E-07	Arsenic	Skin	6.8E-03		3.2E-03	9.9E-03
			Cadmium	NA		NA		Cadmium	Kidneys	1.3E-02		8.2E-03	2.1E-02
			Chromium	NA		NA		Chromium	None reported	3.3E-02		NA	3.3E-02
			Copper	NA		NA		Copper	Liver/Kidneys/Forestomach	2.2E-03		NA	2.2E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	1.4E-05		NA	1.4E-05
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.8E-02		NA	1.8E-02
			Manganese	NA		NA		Manganese	Central Nervous System	3.7E-03		NA	3.7E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	0.0E+00		NA	

TABLE 9.4.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	3.2E-03		NA	3.2E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	9.7E-05		NA	9.7E-05
			Thallium	NA		NA		Thallium	NOAEL; various	3.3E-03		NA	3.3E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	3.1E-08		6.3E-08	9.5E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	3.1E-07		6.2E-07	9.3E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	2.1E-08		4.3E-08	6.4E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.1E-08		2.3E-08	3.5E-08	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	2.1E-08		4.2E-08	6.2E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	8.0E-05		1.6E-04	2.4E-04
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	1.3E-03		2.8E-03	4.1E-03
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	6.8E-03		1.5E-02	2.2E-02
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	3.5E-03		7.7E-03	1.1E-02
			Sum of PCBs	1.7E-08		3.7E-08	5.4E-08	Sum of PCBs		NA		NA	
			(Wetland SYW-12 Sediment Total)	5.0E-07		8.7E-07	1.4E-06	(Wetland SYW-12 Sediment Total)		0.10		0.04	0.13
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	2.7E-03		NA	2.7E-03
			Arsenic	1.2E-07		5.5E-08	1.7E-07	Arsenic	Skin	9.2E-03		4.3E-03	1.3E-02
			Barium	NA		NA		Barium	Cardiovascular System	2.4E-03		NA	2.4E-03
			Cadmium	NA		NA		Cadmium	Kidneys	9.5E-04		5.9E-04	1.5E-03
			Chromium	NA		NA		Chromium	None reported	7.6E-03		NA	7.6E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.1E-02		NA	1.1E-02
			Manganese	NA		NA		Manganese	Central Nervous System	4.2E-03		NA	4.2E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	0.0E+00		NA	
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	4.5E-02		NA	4.5E-02
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	1.4E-03		NA	1.4E-03
			SVOCs	NA		NA		**SVOCs**					
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	1.4E-03		2.1E-03	3.5E-03
			1,4-Dichlorobenzene	2.0E-09		3.1E-09	5.0E-09	1,4-Dichlorobenzene	Skin/Blood	9.6E-05		1.5E-04	2.4E-04
			Hexachlorobenzene	4.1E-08		6.4E-08	1.0E-07	Hexachlorobenzene	Liver	1.1E-03		1.7E-03	2.9E-03
			Benz(a)anthracene	7.6E-08		1.5E-07	2.3E-07	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	7.0E-07		1.4E-06	2.1E-06	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	6.1E-08		1.2E-07	1.8E-07	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	Kidney	6.0E-05		1.2E-04	1.8E-04
			Benzo(k)fluoranthene	5.4E-09		1.1E-08	1.6E-08	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.8E-07		3.6E-07	5.4E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	4.0E-08		8.2E-08	1.2E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	1.8E-04		3.6E-04	5.4E-04
			Pesticides	NA		NA		**Pesticides**					
			Aldrin	6.1E-09		NA	6.1E-09	Aldrin	Liver	4.2E-04		NA	4.2E-04
			Dieldrin	4.3E-09		NA	4.3E-09	Dieldrin	Liver	1.9E-04		NA	1.9E-04
			PCBs	NA		NA		**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	3.3E-03		7.1E-03	1.0E-02
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	1.0E-02		2.2E-02	3.2E-02
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	5.1E-03		1.1E-02	1.6E-02

TABLE 9.4.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Sum of PCBs	2.5E-08		5.4E-08	7.9E-08	Sum of PCBs		NA		NA	
			PCDD/PCDFs	NA		NA		**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.2E-06		5.7E-07	1.8E-06	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-19 Sediment Total)	2.5E-06		2.9E-06	5.4E-06	(Wetland SYW-19 Sediment Total)		0.11		0.05	0.16
						Total Risk Across Sediment	1.9E-05					Total Hazard Across Sediment	0.70
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	3.9E-03		NA	3.9E-03
			Arsenic	1.2E-07		5.4E-08	1.7E-07	Arsenic	Skin	9.0E-03		4.2E-03	1.3E-02
			Chromium	NA		NA		Chromium	None reported	3.2E-03		NA	3.2E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.8E-02		NA	1.8E-02
			Manganese	NA		NA		Manganese	Central Nervous System	4.9E-03		NA	4.9E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	4.3E-03		NA	4.3E-03
			SVOCs					**SVOCs**					
			Hexachlorobenzene	6.1E-09		9.4E-09	1.5E-08	Hexachlorobenzene	Liver	1.7E-04		2.6E-04	4.2E-04
			Benzo(a)pyrene	8.8E-09		1.8E-08	2.6E-08	Benzo(a)pyrene		NA		NA	
			(Dredge Spoils - Surface Total)	1.3E-07		8.1E-08	2.1E-07	(Dredge Spoils - Surface Total)		0.04		0.004	0.05
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	3.3E-03		NA	3.3E-03
			Arsenic	1.2E-07		5.6E-08	1.8E-07	Arsenic	Skin	9.4E-03		4.4E-03	1.4E-02
			Cadmium	NA		NA		Cadmium	Kidneys	3.1E-04		1.9E-04	5.1E-04
			Chromium	NA		NA		Chromium	None reported	2.8E-03		NA	2.8E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	1.4E-05		NA	1.4E-05
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.6E-02		NA	1.6E-02
			Manganese	NA		NA		Manganese	Central Nervous System	5.3E-03		NA	5.3E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	5.2E-02		NA	5.2E-02
			Thallium	NA		NA		Thallium	NOAEL; various	2.4E-03		NA	2.4E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	1.7E-08		3.4E-08	5.1E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.8E-07		3.6E-07	5.4E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.5E-08		3.1E-08	4.6E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	Kidney	1.4E-05		2.8E-05	4.2E-05
			Benzo(k)fluoranthene	1.5E-09		3.1E-09	4.7E-09	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	4.1E-08		8.3E-08	1.2E-07	Dibenz(a,h)anthracene		NA		NA	
			Hexachlorobenzene	3.3E-09		5.2E-09	8.5E-09	Hexachlorobenzene	Liver	9.1E-05		1.4E-04	2.3E-04
			Indeno(1,2,3-cd)pyrene	8.7E-09		1.8E-08	2.6E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	4.6E-05		9.3E-05	1.4E-04
			Phenanthrene	NA		NA		Phenanthrene	Kidney	1.3E-05		2.6E-05	3.9E-05
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	3.4E-03		7.3E-03	1.1E-02
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	5.8E-03		1.3E-02	1.9E-02
			Sum of PCBs	1.2E-08		2.5E-08	3.7E-08	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	6.1E-08		2.8E-08	8.9E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Dredge Spoils - Subsurface Total)	4.6E-07		6.4E-07	1.1E-06	(Dredge Spoils - Subsurface Total)		0.10		0.02	0.13
						Total Risk Across Dredge Spoils	1.1E-06					Total Hazard Across Dredge Spoils	0.13
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					

TABLE 9.4.RME
Summary of Receptor Risks and Hazards for COPCs
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Cadmium					Cadmium	Kidneys	2.6E-05		4.9E-04	5.2E-04
			Chromium					Chromium	None reported	9.2E-06		3.5E-04	3.6E-04
			Manganese					Manganese	Central Nervous System	6.8E-06		8.1E-05	8.8E-05
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	1.6E-07		7.4E-08	2.3E-07
			Total Mercury					Total mercury	Immune System	3.2E-07		2.2E-06	2.5E-06
			VOCs					**VOCs**					
			Benzene	1.1E-11		1.2E-10	1.3E-10	Benzene	Immune System/Blood	2.3E-06		2.5E-05	2.8E-05
			Chlorobenzene					Chlorobenzene	Liver	3.7E-07		9.6E-06	9.9E-06
			Chloroform					Chloroform	Liver	7.7E-07		5.0E-06	5.8E-06
			SVOCs					**SVOCs**					
			Bromodichloromethane	5.0E-12		3.0E-11	3.5E-11	Bromodichloromethane	Kidney	1.4E-07		8.5E-07	9.9E-07
			1,2-Dichlorobenzene					1,2-Dichlorobenzene	NOAEL	7.6E-08		3.8E-06	3.8E-06
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	7.0E-06		5.0E-04	5.1E-04
			1,4-Dichlorobenzene	5.0E-12		2.5E-10	2.6E-10	1,4-Dichlorobenzene	Skin/Blood	2.4E-07		1.2E-05	1.2E-05
			1,2,4-Trichlorobenzene					1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	6.8E-07		6.2E-05	6.3E-05
			(Surface Water - Total)	2.1E-11		4.0E-10	4.2E-10	(Surface Water - Total)		0.0001		0.002	0.002
							Total Risk Across Surface Water: 4.2E-10						Total Hazard Across Surface Water: 0.002
							Total Risk Across All Media and All Exposure Routes: 2.0E-05						Total Hazard Index Across All Media and All Exposure Routes: 0.83

Total [Lungs] HI =	0.01	Total [DNI] HI =	0.0017	Total [Kidney] HI =	0.04	Total [Blood] HI =	0.03
Total [Immune System] HI =	0.26	Total [Birth Weight] HI =	0.02	Total [CNS] HI =	0.04	Total [Body Weight] HI =	0.06
Total [Skin] HI =	0.13	Total [NOAEL] HI =	0.03	Total [Liver] HI =	0.16	Total [Whole Body] HI =	0.02

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 9.1.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Adult (18 and older)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	2.8E-01		NA	2.8E-01
			Arsenic (inorganic)	1.8E-06		NA	1.8E-06	Arsenic (inorganic)	Skin	3.1E-02			3.1E-02
			Chromium	NA		NA		Chromium	None reported	2.2E-02		NA	2.2E-02
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	3.3E-02		NA	3.3E-02
			Manganese	NA		NA		Manganese	Central Nervous System	2.6E-03		NA	2.6E-03
			Mercury (as methylmercury)					Mercury (as methylmercury)	Developmental				
				NA		NA			Neuropsychological Impairment	1.2E+00			1.2E+00
			Selenium	NA		NA		Selenium	Whole Body	3.4E-02		NA	3.4E-02
			Vanadium	NA		NA		Vanadium	Not Reported/Unknown	1.0E-02		NA	1.0E-02
			Zinc	NA		NA		Zinc	Blood	1.7E-02		NA	1.7E-02
			SVOCs			NA		**SVOCs**					
			bis(2-ethylhexyl)phthalate	4.7E-07		NA	4.7E-07	bis(2-ethylhexyl)phthalate	Liver	1.3E-02		NA	1.3E-02
			Hexachlorobenzene	3.1E-07		NA	3.1E-07	Hexachlorobenzene	Liver	1.9E-03		NA	1.9E-03
			Pesticides			NA		**Pesticides**					
			2,4'-DDE	NA		NA		2,4'-DDE		NA		NA	
			4,4'-DDD	4.7E-08		NA	4.7E-08	4,4'-DDD	Liver	5.1E-04		NA	5.1E-04
			4,4'-DDE	1.7E-07		NA	1.7E-07	4,4'-DDE	Liver	5.6E-03		NA	5.6E-03
			4,4'-DDT	4.7E-08		NA	4.7E-08	4,4'-DDT	Liver	2.2E-03		NA	2.2E-03
			Aldrin	6.3E-07		NA	6.3E-07	Aldrin	Liver	9.6E-03		NA	9.6E-03
			delta-BHC	NA		NA		delta-BHC	Liver/kidney	9.6E-04		NA	9.6E-04
			Dieldrin	9.0E-07		NA	9.0E-07	Dieldrin	Liver	8.7E-03		NA	8.7E-03
			Heptachlor epoxide	5.5E-07		NA	5.5E-07	Heptachlor epoxide	Liver	3.6E-02		NA	3.6E-02
			Sum of chlordanes	5.0E-08		NA	5.0E-08	Sum of chlordanes	Liver	2.2E-03		NA	2.2E-03
			PCBs			NA		**PCBs**					
			Aroclor 1016	NA		NA							
			Aroclor 1242	NA		NA							
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	5.2E-01		NA	5.2E-01
			Aroclor 1248	NA		NA							
			Aroclor 1260	NA		NA							
			Aroclors 1254 & 1260	NA		NA							
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	2.2E+00		NA	2.2E+00
			Sum of PCBs	9.0E-06		NA	9.0E-06	Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs			NA		**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.9E-05		NA	2.9E-05	TEQ as 2,3,7,8-TCDD	NA	NA			
			(Fish Tissue - Total)	4.3E-05		NA	4.3E-05	(Fish Tissue - Total)		4.48		NA	4.48
						Total Risk Across Fish Fillet	4.3E-05					Total Hazard Across Fish Fillet	4.48

TABLE 9.1.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	1.4E-03		NA	1.4E-03
			Arsenic	4.7E-08		2.4E-08	7.0E-08	Arsenic	Skin	8.0E-04		4.1E-04	1.2E-03
			Barium	NA		NA		Barium	Cardiovascular System	1.4E-04		NA	1.4E-04
			Cadmium	NA		NA		Cadmium	Kidneys	1.3E-04		8.7E-05	2.1E-04
			Chromium	NA		NA		Chromium	None reported	6.8E-04		NA	6.8E-04
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.2E-03		NA	1.2E-03
			Manganese	NA		NA		Manganese	Central Nervous System	7.4E-04		NA	7.4E-04
			Methylmercury					Methylmercury	Developmental				
				NA		NA			Neuropsychological Impairment	1.2E-06		NA	1.2E-06
			Total Mercury	NA		NA		Total mercury	Immune System	3.9E-04		NA	3.9E-04
			Thallium	NA		NA		Thallium	NOAEL; various	2.8E-04		NA	2.8E-04
			VOCs					**VOCs**					
			Benzene	4.0E-11		NA	4.0E-11	Benzene	Immune System/Blood	1.9E-06		NA	1.9E-06
			SVOCs					**SVOCs**					
			Hexachlorobenzene	5.2E-09		8.9E-09	1.4E-08	Hexachlorobenzene	Liver	3.2E-05		5.4E-05	8.6E-05
			Benz(a)anthracene	9.6E-10		2.1E-09	3.1E-09	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	9.1E-09		2.0E-08	2.9E-08	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.4E-09		3.1E-09	4.5E-09	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.8E-09		6.3E-09	9.1E-09	Dibenz(a,h)anthracene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	1.2E-06		2.7E-06	3.9E-06
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	1.3E-04		3.1E-04	4.4E-04
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	1.1E-04		2.6E-04	3.7E-04
			Sum of PCBs	6.9E-10		1.7E-09	2.4E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.4E-09		1.2E-09	3.6E-09	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	6.9E-08		6.8E-08	1.4E-07	(North Basin Sediment Total)		0.01		0.001	0.01
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	6.7E-04		NA	6.7E-04
			Arsenic	8.2E-08		4.2E-08	1.2E-07	Arsenic	Skin	1.4E-03		7.3E-04	2.1E-03
			Cadmium	NA		NA		Cadmium	Kidneys	5.4E-04		3.7E-04	9.1E-04
			Chromium	NA		NA		Chromium	None reported	2.0E-03		NA	2.0E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	8.9E-06		NA	8.9E-06
			Iron	NA		NA		Iron	Liver, spleen, lymph system	5.9E-03		NA	5.9E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.1E-03		NA	1.1E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	6.3E-04		NA	6.3E-04
			Methylmercury					Methylmercury	Developmental				
				NA		NA			Neuropsychological Impairment	1.9E-05		NA	1.9E-05
			Thallium	NA		NA		Thallium	NOAEL; various	1.6E-03		NA	1.6E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	1.5E-06		3.3E-06	4.7E-06	Benzo(a)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	1.0E-05		2.3E-05	3.3E-05
			Acenaphthylene					Acenaphthylene	Kidney	8.2E-06		1.8E-05	2.6E-05
			Benz(a)anthracene	1.5E-07		3.3E-07	4.8E-07	Benz(a)anthracene		NA		NA	
			Benzo(b)fluoranthene	1.8E-07		4.0E-07	5.8E-07	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	3.1E-05		6.8E-05	9.9E-05
			Benzo(k)fluoranthene	6.7E-09		1.5E-08	2.2E-08	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.6E-07		5.8E-07	8.4E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	8.6E-08		1.9E-07	2.8E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene					Naphthalene	Decreased body weight	1.3E-05		3.0E-05	4.3E-05
			Phenanthrene					Phenanthrene	Kidney	6.8E-05		1.5E-04	2.2E-04

TABLE 9.1.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.4E-08		7.1E-09	2.1E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-6 Sediment Total)	2.2E-06		4.8E-06	7.1E-06	(Wetland SYW-6 Sediment Total)		0.01		0.001	0.02
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	5.9E-04		NA	5.9E-04
			Antimony	NA		NA		Antimony	Whole Body/Blood	8.0E-04		NA	8.0E-04
			Arsenic	1.4E-07		7.3E-08	2.1E-07	Arsenic	Skin	2.4E-03		1.3E-03	3.7E-03
			Chromium	NA		NA		Chromium	None reported	6.6E-04		NA	6.6E-04
			Iron	NA		NA		Iron	Liver, spleen, lymph system	3.4E-03		NA	3.4E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.0E-03		NA	1.0E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	5.9E-04		NA	5.9E-04
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	1.8E-05		NA	1.8E-05
			Thallium	NA		NA		Thallium	NOAEL; various	2.2E-03		NA	2.2E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	6.0E-09		1.3E-08	1.9E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	6.3E-08		1.4E-07	2.0E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	5.2E-09		1.2E-08	1.7E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.5E-08		3.3E-08	4.8E-08	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	3.8E-09		8.6E-09	1.2E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	6.3E-04		1.5E-03	2.1E-03
			Sum of PCBs	1.8E-09		4.4E-09	6.2E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.4E-08		7.3E-09	2.2E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-10 Sediment Total)	2.5E-07		2.9E-07	5.4E-07	(Wetland SYW-10 Sediment Total)		0.01		0.003	0.02
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	4.0E-05		NA	4.0E-05
			Antimony					Antimony	Whole Body/Blood	7.5E-05		NA	7.5E-05
			Arsenic	2.3E-08		1.2E-08	3.5E-08	Arsenic	Skin	4.0E-04		2.1E-04	6.1E-04
			Barium					Barium	Cardiovascular System	1.3E-04		NA	1.3E-04
			Cadmium					Cadmium	Kidneys	3.8E-05		2.6E-05	6.4E-05
			Chromium					Chromium	None reported	6.7E-04		NA	6.7E-04
			Copper					Copper	Liver/Kidneys/Forestomach	2.4E-05		NA	2.4E-05
			Cyanide					Cyanide	Whole Body/Blood	7.4E-07		NA	7.4E-07
			Iron					Iron	Liver, spleen, lymph system	4.0E-04		NA	4.0E-04
			Lead					Lead	CNS, blood, whole body	NA		NA	
			Manganese					Manganese	Central Nervous System	1.2E-04		NA	1.2E-04
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	2.2E-06		NA	2.2E-06
			Total Mercury					Total mercury	Immune System	6.2E-04		NA	6.2E-04
			Nickel					Nickel	Whole Body/Major Organs	3.6E-05		NA	3.6E-05
			Thallium					Thallium	NOAEL; various	5.9E-05		NA	5.9E-05
			Vanadium					Vanadium	Not Reported/Unknown	4.2E-05		NA	4.2E-05
			VOCs					**VOCs**					
			Benzene	4.2E-09		NA	4.2E-09	Benzene	Immune System/Blood	2.0E-04		NA	2.0E-04
			Chlorobenzene					Chlorobenzene	Liver	8.8E-05		NA	8.8E-05
			Methylene chloride	8.0E-11		NA	8.0E-11	Methylene chloride	Liver	1.4E-06		NA	1.4E-06
			Xylenes					Xylenes	NOAEL; CNS	1.6E-06		NA	1.6E-06
			SVOCs					**SVOCs**					
			Dibenzofuran					Dibenzofuran	Liver	4.4E-05		7.5E-05	1.2E-04
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	5.0E-05		8.6E-05	1.4E-04
			1,4-Dichlorobenzene	1.9E-09		3.2E-09	5.1E-09	1,4-Dichlorobenzene	Skin/Blood	2.0E-05		3.5E-05	5.5E-05

TABLE 9.1.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Hexachlorobenzene	1.3E-08		2.3E-08	3.6E-08	Hexachlorobenzene	Liver	8.1E-05		1.4E-04	2.2E-04
			Acenaphthylene					Acenaphthylene	Kidney	1.4E-06		3.1E-06	4.5E-06
			Benz(a)anthracene	9.0E-09		2.0E-08	2.9E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	6.8E-08		1.5E-07	2.2E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	9.0E-09		2.0E-08	2.9E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	2.1E-06		4.6E-06	6.7E-06
			Benzo(k)fluoranthene	3.3E-10		7.2E-10	1.1E-09	Benzo(k)fluoranthene		NA		NA	
			Chrysene	8.8E-11		2.0E-10	2.8E-10	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	1.5E-08		3.3E-08	4.8E-08	Dibenz(a,h)anthracene		NA		NA	
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	8.2E-06		1.8E-05	2.7E-05
			Indeno(1,2,3-cd)pyrene	3.5E-09		7.7E-09	1.1E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	8.6E-05		1.9E-04	2.8E-04
			Naphthalene					Naphthalene	Decreased body weight	5.1E-04		1.1E-03	1.7E-03
			Phenanthrene					Phenanthrene	Kidney	1.7E-05		3.8E-05	5.5E-05
			Pesticides					**Pesticides**					
			Dieldrin	1.7E-10		NA	1.7E-10	Dieldrin	Liver	1.7E-06		NA	1.7E-06
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	1.1E-05		2.7E-05	3.9E-05
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	4.8E-05		1.2E-04	1.6E-04
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	1.1E-04		2.6E-04	3.7E-04
			Aroclor 1254					Aroclor 1254	Immune System	6.8E-05		1.6E-04	2.3E-04
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	9.8E-05		2.3E-04	3.3E-04
			Sum of PCBs	1.3E-09		3.2E-09	4.5E-09	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	7.1E-08		3.6E-08	1.1E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	2.2E-07		3.1E-07	5.3E-07	(South Basin Sediment Total)		0.004		0.003	0.01
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	8.6E-05		NA	8.6E-05
			Arsenic	1.2E-08		6.1E-09	1.8E-08	Arsenic	Skin	2.1E-04		1.1E-04	3.1E-04
			Cadmium	NA		NA		Cadmium	Kidneys	4.0E-04		2.7E-04	6.7E-04
			Chromium	NA		NA		Chromium	None reported	9.9E-04		NA	9.9E-04
			Copper	NA		NA		Copper	Liver/Kidneys/Forestomach	6.5E-05		NA	6.5E-05
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	4.2E-07		NA	4.2E-07
			Iron	NA		NA		Iron	Liver, spleen, lymph system	5.6E-04		NA	5.6E-04
			Manganese	NA		NA		Manganese	Central Nervous System	1.1E-04		NA	1.1E-04
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	9.7E-05		NA	9.7E-05
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	2.9E-06		NA	2.9E-06
			Thallium	NA		NA		Thallium	NOAEL; various	9.9E-05		NA	9.9E-05
			SVOCs					**SVOCs**					
			Benz(a)anthracene	4.3E-09		9.5E-09	1.4E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	4.2E-08		9.3E-08	1.3E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	2.9E-09		6.4E-09	9.3E-09	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.6E-09		3.5E-09	5.0E-09	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	2.8E-09		6.2E-09	9.0E-09	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	2.4E-06		5.4E-06	7.8E-06
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	3.9E-05		9.3E-05	1.3E-04
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	2.1E-04		4.9E-04	7.0E-04
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	1.1E-04		2.6E-04	3.6E-04
			Sum of PCBs	1.2E-09		2.8E-09	3.9E-09	Sum of PCBs		NA		NA	
			(Wetland SYW-12 Sediment Total)	6.6E-08		1.3E-07	1.9E-07	(Wetland SYW-12 Sediment Total)		0.003		0.001	0.004
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**					**Inorganics**					

TABLE 9.1.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Antimony	NA		NA		Antimony	Whole Body/Blood	8.1E-05		NA	8.1E-05
			Arsenic	1.6E-08		8.3E-09	2.4E-08	Arsenic	Skin	2.8E-04		1.4E-04	4.2E-04
			Barium	NA		NA		Barium	Cardiovascular System	7.2E-05		NA	7.2E-05
			Cadmium	NA		NA		Cadmium	Kidneys	2.9E-05		2.0E-05	4.9E-05
			Chromium	NA		NA		Chromium	None reported	2.3E-04		NA	2.3E-04
			Iron	NA		NA		Iron	Liver, spleen, lymph system	3.4E-04		NA	3.4E-04
			Manganese	NA		NA		Manganese	Central Nervous System	1.3E-04		NA	1.3E-04
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.4E-03		NA	1.4E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	4.2E-05		NA	4.2E-05
			SVOCs					**SVOCs**					
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	4.1E-05		7.0E-05	1.1E-04
			1,4-Dichlorobenzene	2.7E-10		4.6E-10	7.3E-10	1,4-Dichlorobenzene	Skin/Blood	2.9E-06		5.0E-06	7.9E-06
			Hexachlorobenzene	5.6E-09		9.6E-09	1.5E-08	Hexachlorobenzene	Liver	3.4E-05		5.8E-05	9.2E-05
			Benz(a)anthracene	1.0E-08		2.3E-08	3.4E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	9.6E-08		2.1E-07	3.1E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	8.3E-09		1.8E-08	2.7E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	Kidney	1.8E-06		4.1E-06	5.9E-06
			Benzo(k)fluoranthene	7.3E-10		1.6E-09	2.4E-09	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.4E-08		5.4E-08	7.8E-08	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	5.5E-09		1.2E-08	1.8E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	5.4E-06		1.2E-05	1.7E-05
			Pesticides					**Pesticides**					
			Aldrin	8.3E-10		NA	8.3E-10	Aldrin	Liver	1.3E-05		NA	1.3E-05
			Dieldrin	5.9E-10		NA	5.9E-10	Dieldrin	Liver	5.7E-06		NA	5.7E-06
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	9.9E-05		2.4E-04	3.3E-04
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	3.0E-04		7.2E-04	1.0E-03
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	1.5E-04		3.7E-04	5.2E-04
			Sum of PCBs	1.7E-09		4.0E-09	5.7E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.7E-07		8.5E-08	2.5E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-19 Sediment Total)	3.4E-07		4.3E-07	7.7E-07	(Wetland SYW-19 Sediment Total)		0.003		0.002	0.005
							Total Risk Across Sediment 9.3E-06						Total Hazard Across Sediment 0.05
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**	NA				**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	7.6E-04		NA	7.6E-04
			Arsenic	1.0E-07		5.2E-08	1.5E-07	Arsenic	Skin	1.8E-03		9.0E-04	2.7E-03
			Chromium	NA		NA		Chromium	None reported	6.1E-04		NA	6.1E-04
			Iron	NA		NA		Iron	Liver, spleen, lymph system	3.6E-03		NA	3.6E-03
			Manganese	NA		NA		Manganese	Central Nervous System	9.5E-04		NA	9.5E-04
			Total Mercury	NA		NA		Total Mercury	Immune System	8.3E-04		NA	8.3E-04
			SVOCs					**SVOCs**					
			Hexachlorobenzene	5.3E-09		9.0E-09	1.4E-08	Hexachlorobenzene	Liver	3.2E-05		5.5E-05	8.7E-05
			Benzo(a)pyrene	7.6E-09		1.7E-08	2.5E-08	Benzo(a)pyrene		NA		NA	
			(Dredge Spoils - Surface Total)	1.1E-07		7.8E-08	1.9E-07	(Dredge Spoils - Surface Total)		0.01		0.001	0.01
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	

TABLE 9.1.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Naphthalene	NA		NA		Naphthalene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1268	NA		NA		Aroclor 1268	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Dredge Spoils - Subsurface Total)	NA		NA		(Dredge Spoils - Subsurface Total)	NA	NA		NA	
				Total Risk Across Dredge Spoil Soils			1.9E-07					Total Hazard Across Dredge Spoil Soils	0.01
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					
			Cadmium	NA		NA		Cadmium	Kidneys	1.4E-04		2.0E-03	2.1E-03
			Chromium	NA		NA		Chromium	None reported	4.9E-05		1.4E-03	1.5E-03
			Manganese	NA		NA		Manganese	Central Nervous System	3.7E-05		3.3E-04	3.7E-04
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	8.3E-07		3.0E-07	1.1E-06
			Total Mercury	NA		NA		Total mercury	Immune System	1.7E-06		8.9E-06	1.1E-05
			VOCs					**VOCs**					
			Benzene	2.6E-10		2.2E-09	2.4E-09	Benzene	Immune System/Blood	1.2E-05		1.4E-04	1.5E-04
			Chlorobenzene	NA		NA		Chlorobenzene	Liver	2.0E-06		5.3E-05	5.5E-05
			Chloroform	NA		NA		Chloroform	Liver	4.1E-06		2.8E-05	3.2E-05
			SVOCs					**SVOCs**					
			Bromodichloromethane	1.2E-10		5.5E-10	6.7E-10	Bromodichloromethane	Kidney	7.5E-07		4.7E-06	5.5E-06
			1,2-Dichlorobenzene	NA		NA		1,2-Dichlorobenzene	NOAEL	4.1E-07		2.1E-05	2.1E-05
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	3.8E-05		2.8E-03	2.8E-03
			1,4-Dichlorobenzene	1.2E-10		4.6E-09	4.7E-09	1,4-Dichlorobenzene	Skin/Blood	1.3E-06		6.8E-05	6.9E-05
			1,2,4-Trichlorobenzene	NA		NA		1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	3.6E-06		3.5E-04	3.5E-04
			(Surface Water - Total)	5.0E-10		7.3E-09	7.8E-09	(Surface Water - Total)		0.0003		0.01	0.01
						Total Risk Across Surface Water	7.8E-09					Total Hazard Across Surface Water	0.01
						Total Risk Across All Media and All Exposure Routes	5.2E-05					Total Hazard Index Across All Media and All Exposure Routes	4.55

Total [Lungs] HI =	0.0003	Total [DNI] HI =	1.24	Total [Kidney] HI =	0.003	Total [Blood] HI =	0.34
Total [Immune System] HI =	2.22	Total [Birth Weight] HI =	0.52	Total [CNS] HI =	0.01	Total [Body Weight] HI =	0.002
Total [Skin] HI =	0.04	Total [NOAEL] HI =	0.0003	Total [Liver] HI =	0.10	Total [Whole Body] HI =	0.35

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 9.2.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Young Child (less than 6)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	4.4E-01		NA	4.4E-01
			Arsenic (inorganic)	1.8E-06		NA	1.8E-06	Arsenic (inorganic)	Skin	4.8E-02			4.8E-02
			Chromium	NA		NA		Chromium	None reported	3.4E-02		NA	3.4E-02
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	5.1E-02		NA	5.1E-02
			Manganese	NA		NA		Manganese	Central Nervous System Developmental Neuropsychological	4.1E-03		NA	4.1E-03
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	Impairment	1.9E+00			1.9E+00
			Selenium	NA		NA		Selenium	Whole Body	5.2E-02		NA	5.2E-02
			Vanadium	NA		NA		Vanadium	Not Reported/Unknown	1.6E-02		NA	1.6E-02
			Zinc	NA		NA		Zinc	Blood	2.6E-02		NA	2.6E-02
			SVOCs					**SVOCs**					
			bis(2-ethylhexyl)phthalate	4.9E-07		NA	4.9E-07	bis(2-ethylhexyl)phthalate	Liver	2.0E-02		NA	2.0E-02
			Hexachlorobenzene	3.2E-07		NA	3.2E-07	Hexachlorobenzene	Liver	2.9E-03		NA	2.9E-03
			Pesticides					**Pesticides**					
			2,4'-DDE	NA		NA		2,4'-DDE		NA		NA	
			4,4'-DDD	4.8E-08		NA	4.8E-08	4,4'-DDD	Liver	7.9E-04		NA	7.9E-04
			4,4'-DDE	1.8E-07		NA	1.8E-07	4,4'-DDE	Liver	8.7E-03		NA	8.7E-03
			4,4'-DDT	4.9E-08		NA	4.9E-08	4,4'-DDT	Liver	3.4E-03		NA	3.4E-03
			Aldrin	6.6E-07		NA	6.6E-07	Aldrin	Liver	1.5E-02		NA	1.5E-02
			delta-BHC	NA		NA		delta-BHC	Liver/kidney	1.5E-03		NA	1.5E-03
			Dieldrin	9.3E-07		NA	9.3E-07	Dieldrin	Liver	1.4E-02		NA	1.4E-02
			Heptachlor epoxide	5.7E-07		NA	5.7E-07	Heptachlor epoxide	Liver	5.7E-02		NA	5.7E-02
			Sum of chlordanes	5.2E-08		NA	5.2E-08	Sum of chlordanes	Liver	3.5E-03		NA	3.5E-03
			PCBs					**PCBs**					
			Aroclor 1016	NA		NA							
			Aroclor 1242	NA		NA							
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	8.1E-01		NA	8.1E-01
			Aroclor 1248	NA		NA							
			Aroclor 1260	NA		NA							
			Aroclors 1254 & 1260	NA		NA							
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	3.4E+00		NA	3.4E+00
			Sum of PCBs	9.3E-06		NA	9.3E-06	Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	3.0E-05		NA	3.0E-05	TEQ as 2,3,7,8-TCDD	NA	NA			
			(Fish Tissue - Total)	4.4E-05		NA	4.4E-05	(Fish Tissue - Total)		6.97		NA	6.97
							Total Risk Across Fish Tissue: 4.4E-05						Total Hazard Across Fish Tissue: 6.97

TABLE 9.2.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	1.3E-02		NA	1.3E-02
			Arsenic	2.9E-07		4.9E-08	3.4E-07	Arsenic	Skin	7.5E-03		1.3E-03	8.8E-03
			Barium	NA		NA		Barium	Cardiovascular System	1.3E-03		NA	1.3E-03
			Cadmium	NA		NA		Cadmium	Kidneys	1.2E-03		2.7E-04	1.5E-03
			Chromium	NA		NA		Chromium	None reported	6.3E-03		NA	6.3E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.1E-02		NA	1.1E-02
			Manganese	NA		NA		Manganese	Central Nervous System Developmental Neuropsychological	6.9E-03		NA	6.9E-03
			Methylmercury	NA		NA		Methylmercury	Impairment	1.2E-05		NA	1.2E-05
			Total Mercury	NA		NA		Total mercury	Immune System	3.7E-03		NA	3.7E-03
			Thallium	NA		NA		Thallium	NOAEL; various	2.6E-03		NA	2.6E-03
			VOCs					**VOCs**					
			Benzene	2.5E-10		NA	2.5E-10	Benzene	Immune System/Blood	1.7E-05		NA	1.7E-05
			SVOCs					**SVOCs**					
			Hexachlorobenzene	3.3E-08		1.8E-08	5.1E-08	Hexachlorobenzene	Liver	3.0E-04		1.7E-04	4.6E-04
			Benz(a)anthracene	6.0E-09		4.3E-09	1.0E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	5.7E-08		4.1E-08	9.8E-08	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	8.7E-09		6.3E-09	1.5E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.8E-08		1.3E-08	3.1E-08	Dibenz(a,h)anthracene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	1.1E-05		8.3E-06	2.0E-05
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	1.2E-03		9.4E-04	2.1E-03
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	1.0E-03		7.9E-04	1.8E-03
			Sum of PCBs	4.3E-09		3.4E-09	7.7E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.5E-08		2.5E-09	1.7E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	4.3E-07		1.4E-07	5.7E-07	(North Basin Sediment Total)		0.06		0.003	0.06
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Wetland SYW-6 Sediment Total)					(Wetland SYW-6 Sediment Total)					
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Antimony	NA		NA		Antimony	NA	NA		NA	

TABLE 9.2.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Wetland SYW-10 Sediment Total)					(Wetland SYW-10 Sediment Total)					
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	3.7E-04		NA	3.7E-04
			Antimony					Antimony	Whole Body/Blood	7.0E-04		NA	7.0E-04
			Arsenic	1.5E-07		2.4E-08	1.7E-07	Arsenic	Skin	3.8E-03		6.3E-04	4.4E-03
			Barium					Barium	Cardiovascular System	1.2E-03		NA	1.2E-03
			Cadmium					Cadmium	Kidneys	3.6E-04		8.0E-05	4.4E-04
			Chromium					Chromium	None reported	6.2E-03		NA	6.2E-03
			Copper					Copper	Liver/Kidneys/Forestomach	2.2E-04		NA	2.2E-04
			Cyanide					Cyanide	Whole Body/Blood	6.9E-06		NA	6.9E-06
			Iron					Iron	Liver, spleen, lymph system	3.7E-03		NA	3.7E-03
			Lead					Lead	CNS, blood, whole body	NA		NA	
			Manganese					Manganese	Central Nervous System Developmental Neuropsychological	1.2E-03		NA	1.2E-03
			Methylmercury					Methylmercury	Impairment	2.1E-05		NA	2.1E-05
			Total Mercury					Total mercury	Immune System	5.7E-03		NA	5.7E-03
			Nickel					Nickel	Whole Body/Major Organs	3.3E-04		NA	3.3E-04
			Thallium					Thallium	NOAEL; various	5.6E-04		NA	5.6E-04
			Vanadium					Vanadium	Not Reported/Unknown	3.9E-04		NA	3.9E-04
			VOCs					**VOCs**					
			Benzene	2.6E-08		NA	2.6E-08	Benzene	Immune System/Blood	1.9E-03		NA	1.9E-03
			Chlorobenzene					Chlorobenzene	Liver	8.2E-04		NA	8.2E-04
			Methylene chloride	5.0E-10		NA	5.0E-10	Methylene chloride	Liver	1.3E-05		NA	1.3E-05
			Xylenes					Xylenes	NOAEL; CNS	1.5E-05		NA	1.5E-05
			SVOCs					**SVOCs**					
			Hexachlorobenzene	8.3E-08		4.7E-08	1.3E-07	Hexachlorobenzene	Liver	7.6E-04		4.3E-04	1.2E-03
			Dibenzofuran					Dibenzofuran	Liver	4.1E-04		2.3E-04	6.4E-04
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	4.7E-04		2.6E-04	7.3E-04
			1,4-Dichlorobenzene	1.2E-08		6.6E-09	1.8E-08	1,4-Dichlorobenzene	Skin/Blood	1.9E-04		1.1E-04	3.0E-04
			Acenaphthylene					Acenaphthylene	Kidney	1.3E-05		9.4E-06	2.2E-05

TABLE 9.2.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Benz(a)anthracene	5.6E-08		4.1E-08	9.6E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	4.2E-07		3.1E-07	7.3E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	5.6E-08		4.1E-08	9.7E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	1.9E-05		1.4E-05	3.4E-05
			Benzo(k)fluoranthene	2.0E-09		1.5E-09	3.5E-09	Benzo(k)fluoranthene		NA		NA	
			Chrysene	5.5E-10		4.0E-10	9.5E-10	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	9.3E-08		6.8E-08	1.6E-07	Dibenz(a,h)anthracene		NA		NA	
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	7.7E-05		5.6E-05	1.3E-04
			Indeno(1,2,3-cd)pyrene	2.2E-08		1.6E-08	3.7E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	8.1E-04		5.9E-04	1.4E-03
			Naphthalene					Naphthalene	Decreased body weight	4.8E-03		3.5E-03	8.3E-03
			Phenanthrene					Phenanthrene	Kidney	1.6E-04		1.2E-04	2.8E-04
			Pesticides					**Pesticides**					
			Dieldrin	1.1E-09		NA	1.1E-09	Dieldrin	Liver	1.6E-05		NA	1.6E-05
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	1.1E-04		8.3E-05	1.9E-04
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	4.5E-04		3.5E-04	8.0E-04
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	1.0E-03		8.1E-04	1.8E-03
			Aroclor 1254					Aroclor 1254	Immune System	6.3E-04		5.0E-04	1.1E-03
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	9.2E-04		7.2E-04	1.6E-03
			Sum of PCBs	8.3E-09		6.5E-09	1.5E-08	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	4.4E-07		7.4E-08	5.2E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	1.4E-06		6.3E-07	2.0E-06	(South Basin Sediment Total)		0.04		0.01	0.05
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Copper	NA		NA		Copper	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	NA	NA		NA	
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1260	NA		NA		Aroclor 1260	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			(Wetland SYW-12 Sediment Total)					(Wetland SYW-12 Sediment Total)					

TABLE 9.2.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Barium	NA		NA		Barium	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			SVOCs					**SVOCs**					
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	NA	NA		NA	
			1,4-Dichlorobenzene	NA		NA		1,4-Dichlorobenzene	NA	NA		NA	
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			Pesticides					**Pesticides**					
			Aldrin	NA		NA		Aldrin	NA	NA		NA	
			Dieldrin	NA		NA		Dieldrin	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	NA	NA		NA	
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1260	NA		NA		Aroclor 1260	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Wetland SYW-19 Sediment Total)					(Wetland SYW-19 Sediment Total)					
						Total Risks Across Sediments	2.6E-06					Total Hazard Across Sediments	0.11
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			SVOCs					**SVOCs**					
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			(Dredge Spoils - Surface Total)					(Dredge Spoils - Surface Total)					

TABLE 9.2.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Naphthalene	NA		NA		Naphthalene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1268	NA		NA		Aroclor 1268	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ Furans (only)					TEQ Furans (only)	NA	NA		NA	
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Dredge Spoils - Subsurface Total)					(Dredge Spoils - Subsurface Total)					
				Total Risk Across Dredge Spoil Soils								Total Hazard Across Dredge Spoil Soils	
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					
			Cadmium	NA		NA		Cadmium	Kidneys	6.5E-04		3.4E-03	4.1E-03
			Chromium	NA		NA		Chromium	None reported	2.3E-04		2.4E-03	2.6E-03
			Manganese	NA		NA		Manganese	Central Nervous System Developmental Neuropsychological	1.7E-04		5.6E-04	7.3E-04
			Methylmercury	NA		NA		Methylmercury	Impairment	3.9E-06		5.1E-07	4.4E-06
			Total Mercury	NA		NA		Total mercury	Immune System	8.1E-06		1.5E-05	2.3E-05
			VOCs					**VOCs**					
			Benzene	8.1E-10		2.5E-09	3.3E-09	Benzene	Immune System/Blood	5.8E-05		2.4E-04	3.0E-04
			Chlorobenzene	NA		NA		Chlorobenzene	Liver	9.3E-06		9.1E-05	1.0E-04
			Chloroform	NA		NA		Chloroform	Liver	1.9E-05		4.7E-05	6.7E-05
			SVOCs					**SVOCs**					
			Bromodichloromethane	3.7E-10		6.2E-10	1.0E-09	Bromodichloromethane	Kidney	3.5E-06		8.1E-06	1.2E-05
			1,2-Dichlorobenzene	NA		NA		1,2-Dichlorobenzene	NOAEL	1.9E-06		3.6E-05	3.8E-05
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	1.8E-04		4.8E-03	5.0E-03
			1,4-Dichlorobenzene	3.7E-10		5.2E-09	5.6E-09	1,4-Dichlorobenzene	Skin/Blood	6.0E-06		1.2E-04	1.2E-04

TABLE 9.2.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			1,2,4-Trichlorobenzene	NA		NA		1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	1.7E-05		5.9E-04	6.1E-04
			(Surface Water - Total)	1.6E-09		8.3E-09	9.9E-09	(Surface Water - Total)		0.001		0.01	0.01
							Total Risk Across Surface Water: 9.9E-09						Total Hazard Across Surface Water: 0.01
							Total Risk Across All Media and All Exposure Routes: 4.7E-05						Total Hazard Index Across All Media and All Exposure Routes: 7.09

Total [Lungs] HI =	0.001	Total [DNI] HI =	1.92	Total [Kidney] HI =	0.01	Total [Blood] HI =	0.53
Total [Immune System] HI =	3.45	Total [Birth Weight] HI =	0.82	Total [CNS] HI =	0.01	Total [Body Weight] HI =	0.010
Total [Skin] HI =	0.06	Total [NOAEL] HI =	0.003	Total [Liver] HI =	0.15	Total [Whole Body] HI =	0.56

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 9.3.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Older Child (6 to < 18)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	3.1E-01		NA	3.1E-01
			Arsenic (inorganic)	1.9E-06		NA	1.9E-06	Arsenic (inorganic)	Skin	3.3E-02			3.3E-02
			Chromium	NA		NA		Chromium	None reported	2.3E-02		NA	2.3E-02
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	3.5E-02		NA	3.5E-02
			Manganese	NA		NA		Manganese	Central Nervous System	2.9E-03		NA	2.9E-03
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	Developmental Neuropsychological Impairment	1.3E+00			1.3E+00
			Selenium	NA		NA		Selenium	Whole Body	3.6E-02		NA	3.6E-02
			Vanadium	NA		NA		Vanadium	Not Reported/Unknown	1.1E-02		NA	1.1E-02
			Zinc	NA		NA		Zinc	Blood	1.8E-02		NA	1.8E-02
			SVOCs					**SVOCs**					
			bis(2-ethylhexyl)phthalate	5.1E-07		NA	5.1E-07	bis(2-ethylhexyl)phthalate	Liver	1.4E-02		NA	1.4E-02
			Hexachlorobenzene	3.3E-07		NA	3.3E-07	Hexachlorobenzene	Liver	2.0E-03		NA	2.0E-03
			Pesticides					**Pesticides**					
			2,4'-DDE	NA		NA		2,4'-DDE		NA		NA	
			4,4'-DDD	5.1E-08		NA	5.1E-08	4,4'-DDD	Liver	5.5E-04		NA	5.5E-04
			4,4'-DDE	1.9E-07		NA	1.9E-07	4,4'-DDE	Liver	6.1E-03		NA	6.1E-03
			4,4'-DDT	5.1E-08		NA	5.1E-08	4,4'-DDT	Liver	2.4E-03		NA	2.4E-03
			Aldrin	6.9E-07		NA	6.9E-07	Aldrin	Liver	1.0E-02		NA	1.0E-02
			delta-BHC	NA		NA		delta-BHC	Liver/kidney	1.0E-03		NA	1.0E-03
			Dieldrin	9.7E-07		NA	9.7E-07	Dieldrin	Liver	9.5E-03		NA	9.5E-03
			Heptachlor epoxide	6.0E-07		NA	6.0E-07	Heptachlor epoxide	Liver	3.9E-02		NA	3.9E-02
			Sum of chlordanes	5.4E-08		NA	5.4E-08	Sum of chlordanes	Liver	2.4E-03		NA	2.4E-03
			PCBs					**PCBs**					
			Aroclor 1016	NA		NA							
			Aroclor 1242	NA		NA							
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	5.7E-01		NA	5.7E-01
			Aroclor 1248	NA		NA							
			Aroclor 1260	NA		NA							
			Aroclors 1254 & 1260	NA		NA							
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	2.4E+00		NA	2.4E+00
			Sum of PCBs	9.8E-06		NA	9.8E-06	Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs			NA		**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	3.1E-05		NA	3.1E-05	TEQ as 2,3,7,8-TCDD	NA	NA			
			(Fish Tissue - Total)	4.6E-05		NA	4.6E-05	(Fish Tissue - Total)		4.86		NA	4.86
						Total Risk Across Fish Tissue	4.6E-05					Total Hazard Across Fish tissue	4.86

TABLE 9.3.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	2.3E-03		NA	2.3E-03
			Arsenic	7.6E-08		4.9E-08	1.2E-07	Arsenic	Skin	1.3E-03		8.5E-04	2.2E-03
			Barium	NA		NA		Barium	Cardiovascular System	2.2E-04		NA	2.2E-04
			Cadmium	NA		NA		Cadmium	Kidneys	2.1E-04		1.8E-04	3.9E-04
			Chromium	NA		NA		Chromium	None reported	1.1E-03		NA	1.1E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	2.0E-03		NA	2.0E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.2E-03		NA	1.2E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	2.0E-06		NA	2.0E-06
			Total Mercury	NA		NA		Total mercury	Immune System	6.4E-04		NA	6.4E-04
			Thallium	NA		NA		Thallium	NOAEL; various	4.5E-04		NA	4.5E-04
			VOCs					**VOCs**					
			Benzene	6.4E-11		NA	6.4E-11	Benzene	Immune System/Blood	3.0E-06		NA	3.0E-06
			SVOCs					**SVOCs**					
			Hexachlorobenzene	8.5E-09		1.8E-08	2.7E-08	Hexachlorobenzene	Liver	5.2E-05		1.1E-04	1.6E-04
			Benz(a)anthracene	1.6E-09		4.4E-09	5.9E-09	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.5E-08		4.2E-08	5.7E-08	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	2.3E-09		6.4E-09	8.7E-09	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	4.6E-09		1.3E-08	1.8E-08	Dibenz(a,h)anthracene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	2.0E-06		5.6E-06	7.6E-06
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	2.1E-04		6.4E-04	8.5E-04
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	1.8E-04		5.3E-04	7.1E-04
			Sum of PCBs	1.1E-09		3.4E-09	4.5E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	3.8E-09		2.5E-09	6.3E-09	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	1.1E-07		1.4E-07	2.5E-07	(North Basin Sediment Total)		0.01		0.002	0.01
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.1E-03		NA	1.1E-03
			Arsenic	1.3E-07		8.7E-08	2.2E-07	Arsenic	Skin	2.3E-03		1.5E-03	3.8E-03
			Cadmium	NA		NA		Cadmium	Kidneys	8.8E-04		7.6E-04	1.6E-03
			Chromium	NA		NA		Chromium	None reported	3.2E-03		NA	3.2E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	1.4E-05		NA	1.4E-05
			Iron	NA		NA		Iron	Liver, spleen, lymph system	9.6E-03		NA	9.6E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.8E-03		NA	1.8E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.0E-03		NA	1.0E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	3.1E-05		NA	3.1E-05
			Thallium	NA		NA		Thallium	NOAEL; various	2.5E-03		NA	2.5E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	2.4E-06		6.7E-06	9.1E-06	Benzo(a)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	1.7E-05		4.7E-05	6.4E-05
			Acenaphthylene					Acenaphthylene	Kidney	1.3E-05		3.7E-05	5.1E-05

TABLE 9.3.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Benz(a)anthracene	2.4E-07		6.8E-07	9.3E-07	Benz(a)anthracene		NA		NA	
			Benzo(b)fluoranthene	2.9E-07		8.3E-07	1.1E-06	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	5.0E-05		1.4E-04	1.9E-04
			Benzo(k)fluoranthene	1.1E-08		3.1E-08	4.1E-08	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	4.2E-07		1.2E-06	1.6E-06	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	1.4E-07		3.9E-07	5.4E-07	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene					Naphthalene	Decreased body weight	2.2E-05		6.1E-05	8.3E-05
			Phenanthrene					Phenanthrene	Kidney	1.1E-04		3.1E-04	4.2E-04
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.3E-08		1.5E-08	3.7E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-6 Sediment Total)	3.7E-06		9.9E-06	1.4E-05	(Wetland SYW-6 Sediment Total)		0.02		0.003	0.03
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	9.5E-04		NA	9.5E-04
			Antimony	NA		NA		Antimony	Whole Body/Blood	1.3E-03		NA	1.3E-03
			Arsenic	2.3E-07		1.5E-07	3.8E-07	Arsenic	Skin	4.0E-03		2.6E-03	6.6E-03
			Chromium	NA		NA		Chromium	None reported	1.1E-03		NA	1.1E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	5.5E-03		NA	5.5E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.7E-03		NA	1.7E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	9.6E-04		NA	9.6E-04
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	2.9E-05		NA	2.9E-05
			Thallium	NA		NA		Thallium	NOAEL; various	3.5E-03		NA	3.5E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	9.8E-09		2.8E-08	3.7E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.0E-07		2.9E-07	3.9E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	8.5E-09		2.4E-08	3.2E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.4E-08		6.8E-08	9.3E-08	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	6.3E-09		1.8E-08	2.4E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	1.0E-03		3.1E-03	4.1E-03
			Sum of PCBs	3.0E-09		9.1E-09	1.2E-08	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.3E-08		1.5E-08	3.8E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-10 Sediment Total)	4.1E-07		6.0E-07	1.0E-06	(Wetland SYW-10 Sediment Total)		0.02		0.006	0.03
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	6.5E-05		NA	6.5E-05
			Antimony					Antimony	Whole Body/Blood	1.2E-04		NA	1.2E-04
			Arsenic	3.8E-08		2.5E-08	6.3E-08	Arsenic	Skin	6.6E-04		4.3E-04	1.1E-03
			Barium					Barium	Cardiovascular System	2.1E-04		NA	2.1E-04
			Cadmium					Cadmium	Kidneys	6.2E-05		5.4E-05	1.2E-04
			Chromium					Chromium	None reported	1.1E-03		NA	1.1E-03
			Copper					Copper	Liver/Kidneys/Forestomach	3.8E-05		NA	3.8E-05
			Cyanide					Cyanide	Whole Body/Blood	1.2E-06		NA	1.2E-06
			Iron					Iron	Liver, spleen, lymph system	6.5E-04		NA	6.5E-04
			Lead					Lead	CNS, blood, whole body	NA		NA	

TABLE 9.3.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Manganese					Manganese	Central Nervous System Developmental	2.0E-04		NA	2.0E-04
			Methylmercury					Methylmercury	Neuropsychological Impairment	3.6E-06		NA	3.6E-06
			Total Mercury					Total mercury	Immune System	1.0E-03		NA	1.0E-03
			Nickel					Nickel	Whole Body/Major Organs	5.8E-05		NA	5.8E-05
			Thallium					Thallium	NOAEL; various	9.7E-05		NA	9.7E-05
			Vanadium					Vanadium	Not Reported/Unknown	6.8E-05		NA	6.8E-05
			VOCs					**VOCs**					
			Benzene	6.9E-09		NA	6.9E-09	Benzene	Immune System/Blood	3.3E-04		NA	3.3E-04
			Chlorobenzene					Chlorobenzene	Liver	1.4E-04		NA	1.4E-04
			Methylene chloride	1.3E-10		NA	1.3E-10	Methylene chloride	Liver	2.3E-06		NA	2.3E-06
			Xylenes					Xylenes	NOAEL; CNS	2.6E-06		NA	2.6E-06
			SVOCs					**SVOCs**					
			Hexachlorobenzene	2.2E-08		4.7E-08	6.9E-08	Hexachlorobenzene	Liver	1.3E-04		2.9E-04	4.2E-04
			Dibenzofuran					Dibenzofuran	Liver	7.2E-05		1.6E-04	2.3E-04
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	8.2E-05		1.8E-04	2.6E-04
			1,4-Dichlorobenzene	3.1E-09		6.7E-09	9.7E-09	1,4-Dichlorobenzene	Skin/Blood	3.3E-05		7.2E-05	1.1E-04
			Acenaphthylene					Acenaphthylene	Kidney	2.3E-06		6.3E-06	8.6E-06
			Benz(a)anthracene	1.5E-08		4.1E-08	5.6E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.1E-07		3.1E-07	4.2E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.5E-08		4.1E-08	5.6E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	3.4E-06		9.5E-06	1.3E-05
			Benzo(k)fluoranthene	5.3E-10		1.5E-09	2.0E-09	Benzo(k)fluoranthene		NA		NA	
			Chrysene	1.4E-10		4.0E-10	5.5E-10	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	2.4E-08		6.8E-08	9.3E-08	Dibenz(a,h)anthracene		NA		NA	
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	1.3E-05		3.8E-05	5.1E-05
			Indeno(1,2,3-cd)pyrene	5.6E-09		1.6E-08	2.1E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	1.4E-04		3.9E-04	5.3E-04
			Naphthalene					Naphthalene	Decreased body weight	8.4E-04		2.4E-03	3.2E-03
			Phenanthrene					Phenanthrene	Kidney	2.8E-05		7.8E-05	1.1E-04
			Pesticides					**Pesticides**					
			Dieldrin	2.8E-10		NA	2.8E-10	Dieldrin	Liver	2.8E-06		NA	2.8E-06
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	1.9E-05		5.6E-05	7.5E-05
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	7.9E-05		2.4E-04	3.2E-04
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	1.8E-04		5.4E-04	7.2E-04
			Aroclor 1254					Aroclor 1254	Immune System	1.1E-04		3.3E-04	4.4E-04
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	1.6E-04		4.8E-04	6.4E-04
			Sum of PCBs	2.2E-09		6.6E-09	8.8E-09	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.2E-07		7.5E-08	1.9E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	3.6E-07		6.4E-07	1.0E-06	(South Basin Sediment Total)		0.01		0.01	0.01
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.4E-04		NA	1.4E-04
			Arsenic	1.9E-08		1.3E-08	3.2E-08	Arsenic	Skin	3.3E-04		2.2E-04	5.5E-04
			Cadmium	NA		NA		Cadmium	Kidneys	6.5E-04		5.6E-04	1.2E-03
			Chromium	NA		NA		Chromium	None reported	1.6E-03		NA	1.6E-03

TABLE 9.3.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Copper	NA		NA		Copper	Liver/Kidneys/Forestomach	1.1E-04		NA	1.1E-04
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	6.8E-07		NA	6.8E-07
			Iron	NA		NA		Iron	Liver, spleen, lymph system	9.1E-04		NA	9.1E-04
			Manganese	NA		NA		Manganese	Central Nervous System	1.8E-04		NA	1.8E-04
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.6E-04		NA	1.6E-04
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	4.8E-06		NA	4.8E-06
			Thallium	NA		NA		Thallium	NOAEL; various	1.6E-04		NA	1.6E-04
			SVOCs					**SVOCs**					
			Benz(a)anthracene	7.0E-09		2.0E-08	2.6E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	6.8E-08		1.9E-07	2.6E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	4.7E-09		1.3E-08	1.8E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	2.5E-09		7.1E-09	9.7E-09	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	4.6E-09		1.3E-08	1.7E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	4.0E-06		1.1E-05	1.5E-05
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	6.4E-05		1.9E-04	2.6E-04
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	3.4E-04		1.0E-03	1.4E-03
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	1.7E-04		5.3E-04	7.0E-04
			Sum of PCBs	1.9E-09		5.7E-09	7.6E-09	Sum of PCBs		NA		NA	
			(Wetland SYW-12 Sediment Total)	1.1E-07		2.6E-07	3.7E-07	(Wetland SYW-12 Sediment Total)		0.005		0.003	0.01
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	1.3E-04		NA	1.3E-04
			Arsenic	2.6E-08		1.7E-08	4.3E-08	Arsenic	Skin	4.5E-04		2.9E-04	7.5E-04
			Barium	NA		NA		Barium	Cardiovascular System	1.2E-04		NA	1.2E-04
			Cadmium	NA		NA		Cadmium	Kidneys	4.7E-05		4.1E-05	8.8E-05
			Chromium	NA		NA		Chromium	None reported	3.7E-04		NA	3.7E-04
			Iron	NA		NA		Iron	Liver, spleen, lymph system	5.5E-04		NA	5.5E-04
			Manganese	NA		NA		Manganese	Central Nervous System	2.1E-04		NA	2.1E-04
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	2.2E-03		NA	2.2E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	6.8E-05		NA	6.8E-05
			SVOCs					**SVOCs**					
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	6.7E-05		1.4E-04	2.1E-04
			1,4-Dichlorobenzene	4.4E-10		9.4E-10	1.4E-09	1,4-Dichlorobenzene	Skin/Blood	4.7E-06		1.0E-05	1.5E-05
			Hexachlorobenzene	9.1E-09		2.0E-08	2.9E-08	Hexachlorobenzene	Liver	5.5E-05		1.2E-04	1.7E-04
			Benz(a)anthracene	1.7E-08		4.8E-08	6.5E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.6E-07		4.4E-07	5.9E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	1.4E-08		3.8E-08	5.2E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	Kidney	3.0E-06		8.3E-06	1.1E-05
			Benzo(k)fluoranthene	1.2E-09		3.3E-09	4.5E-09	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	4.0E-08		1.1E-07	1.5E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	9.0E-09		2.5E-08	3.4E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	8.8E-06		2.5E-05	3.3E-05

TABLE 9.3.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Pesticides					**Pesticides**					
			Aldrin	1.3E-09		NA	1.3E-09	Aldrin	Liver	2.0E-05		NA	2.0E-05
			Dieldrin	9.6E-10		NA	9.6E-10	Dieldrin	Liver	9.3E-06		NA	9.3E-06
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	1.6E-04		4.9E-04	6.5E-04
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	4.9E-04		1.5E-03	2.0E-03
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	2.5E-04		7.6E-04	1.0E-03
			Sum of PCBs	2.7E-09		8.3E-09	1.1E-08	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.7E-07		1.8E-07	4.5E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-19 Sediment Total	5.5E-07		8.8E-07	1.4E-06	(Wetland SYW-19 Sediment Total)		0.01		0.003	0.01
						Total Risk Across Sediment	1.8E-05					Total Hazard Across Sediment	0.09
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.2E-03		NA	1.2E-03
			Arsenic	1.7E-07		1.1E-07	2.7E-07	Arsenic	Skin	2.9E-03		1.8E-03	4.7E-03
			Chromium	NA		NA		Chromium	None reported	1.0E-03		NA	1.0E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	5.8E-03		NA	5.8E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.5E-03		NA	1.5E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	1.4E-03		NA	1.4E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	1.2E-08		3.5E-08	4.7E-08	Benzo(a)pyrene		NA		NA	
			Hexachlorobenzene	8.6E-09		1.9E-08	2.7E-08	Hexachlorobenzene	Liver	5.2E-05		1.1E-04	1.7E-04
			(Dredge Spoils - Surface Total)	1.9E-07		1.6E-07	3.5E-07	(Dredge Spoils - Surface Total)		0.01		0.002	0.02
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Cadmium	NA		NA		Cadmium	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Iron	NA		NA		Iron	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Total Mercury	NA		NA		Total Mercury	NA	NA		NA	
			Thallium	NA		NA		Thallium	NA	NA		NA	
			SVOCs					**SVOCs**					
			Benz(a)anthracene	NA		NA		Benz(a)anthracene	NA	NA		NA	
			Benzo(a)pyrene	NA		NA		Benzo(a)pyrene	NA	NA		NA	
			Benzo(b)fluoranthene	NA		NA		Benzo(b)fluoranthene	NA	NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	NA	NA		NA	
			Benzo(k)fluoranthene	NA		NA		Benzo(k)fluoranthene	NA	NA		NA	
			Dibenz(a,h)anthracene	NA		NA		Dibenz(a,h)anthracene	NA	NA		NA	
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Indeno(1,2,3-cd)pyrene	NA		NA		Indeno(1,2,3-cd)pyrene	NA	NA		NA	
			Naphthalene	NA		NA		Naphthalene	NA	NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	NA	NA		NA	
			Aroclor 1268	NA		NA		Aroclor 1268	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	

TABLE 9.3.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
			(Dredge Spoils - Subsurface Total)	NA		NA		(Dredge Spoils - Subsurface Total)	NA	NA		NA	
						Total Risk Across Dredge Spoil Soils	3.5E-07					Total Hazard Across Dredge Spoil Soils	0.02
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					
			Cadmium	NA		NA		Cadmium	Kidneys	2.3E-04		2.3E-03	2.6E-03
			Chromium	NA		NA		Chromium	None reported	8.0E-05		1.7E-03	1.7E-03
			Manganese	NA		NA		Manganese	Central Nervous System	5.9E-05		3.9E-04	4.5E-04
			Methylmercury					Methylmercury	Developmental Neuropsychological				
				NA		NA			Impairment	1.4E-06		3.5E-07	1.7E-06
			Total Mercury	NA		NA		Total mercury	Immune System	2.8E-06		1.0E-05	1.3E-05
			VOCs					**VOCs**					
			Benzene	4.3E-10		2.6E-09	3.0E-09	Benzene	Immune System/Blood	2.0E-05		1.7E-04	1.9E-04
			Chlorobenzene	NA		NA		Chlorobenzene	Liver	3.2E-06		6.2E-05	6.6E-05
			Chloroform	NA		NA		Chloroform	Liver	6.7E-06		3.3E-05	3.9E-05
			SVOCs					**SVOCs**					
			Bromodichloromethane	2.0E-10		6.4E-10	8.4E-10	Bromodichloromethane	Kidney	1.2E-06		5.6E-06	6.8E-06
			1,2-Dichlorobenzene	NA		NA		1,2-Dichlorobenzene	NOAEL	6.6E-07		2.5E-05	2.5E-05
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	6.1E-05		3.3E-03	3.3E-03
			1,4-Dichlorobenzene	1.9E-10		5.4E-09	5.6E-09	1,4-Dichlorobenzene	Skin/Blood	2.1E-06		8.0E-05	8.2E-05
			1,2,4-Trichlorobenzene	NA		NA		1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	5.9E-06		4.1E-04	4.1E-04
			(Surface Water - Total)	8.1E-10		8.6E-09	9.4E-09	(Surface Water - Total)		0.0005		0.008	0.01
						Total Risk Across Surface Water	9.4E-09					Total Hazard Across Surface Water	0.01
						Total Risk Across All Media and All Exposure Routes	6.4E-05					Total Hazard Index Across All Media and All Exposure Routes	4.98

Total [Lungs] HI =	0.001	Total [DNI] HI =	1.34	Total [Kidney] HI =	0.01	Total [Blood] HI =	0.37
Total [Immune System] HI =	2.42	Total [Birth Weight] HI =	0.57	Total [CNS] HI =	0.01	Total [Body Weight] HI =	0.004
Total [Skin] HI =	0.06	Total [NOAEL] HI =	0.01	Total [Liver] HI =	0.12	Total [Whole Body] HI =	0.38

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 9.4.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	NA	NA		NA	
			Arsenic	NA		NA		Arsenic	NA	NA		NA	
			Chromium	NA		NA		Chromium	NA	NA		NA	
			Cyanide	NA		NA		Cyanide	NA	NA		NA	
			Manganese	NA		NA		Manganese	NA	NA		NA	
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	NA	NA		NA	
			Selenium	NA		NA		Selenium	NA	NA		NA	
			Vanadium	NA		NA		Vanadium	NA	NA		NA	
			Zinc	NA		NA		Zinc	NA	NA		NA	
			SVOCs					**SVOCs**					
			bis(2-ethylhexyl)phthalate	NA		NA		bis(2-ethylhexyl)phthalate	NA	NA		NA	
			Hexachlorobenzene	NA		NA		Hexachlorobenzene	NA	NA		NA	
			Pesticides					**Pesticides**					
			2,4'-DDE	NA		NA		2,4'-DDE	NA	NA		NA	
			4,4'-DDD	NA		NA		4,4'-DDD	NA	NA		NA	
			4,4'-DDE	NA		NA		4,4'-DDE	NA	NA		NA	
			4,4'-DDT	NA		NA		4,4'-DDT	NA	NA		NA	
			Aldrin	NA		NA		Aldrin	NA	NA		NA	
			delta-BHC	NA		NA		delta-BHC	NA	NA		NA	
			Dieldrin	NA		NA		Dieldrin	NA	NA		NA	
			Heptachlor epoxide	NA		NA		Heptachlor epoxide	NA	NA		NA	
			Sum of chlordanes	NA		NA		Sum of chlordanes	NA	NA		NA	
			PCBs					**PCBs**					
			Aroclor 1016	NA		NA		Aroclor 1016	NA	NA		NA	
			Aroclor 1242	NA		NA		Aroclor 1242	NA	NA		NA	
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	NA	NA		NA	
			Aroclor 1248	NA		NA		Aroclor 1248	NA	NA		NA	
			Aroclor 1260	NA		NA		Aroclor 1260	NA	NA		NA	
			Aroclors 1254 & 1260	NA		NA		Aroclors 1254 & 1260	NA	NA		NA	
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	NA	NA		NA	
			Sum of PCBs	NA		NA		Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	NA		NA		TEQ as 2,3,7,8-TCDD	NA	NA		NA	
						Total Risk Across Fish Tissue						Total Hazard Across Fish Tissue	

TABLE 9.4.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	3.0E-03		NA	3.0E-03
			Arsenic	2.1E-08		2.2E-09	2.4E-08	Arsenic	Skin	1.7E-03		1.7E-04	1.8E-03
			Barium	NA		NA		Barium	Cardiovascular System	2.8E-04		NA	2.8E-04
			Cadmium	NA		NA		Cadmium	Kidneys	2.6E-04		3.6E-05	3.0E-04
			Chromium	NA		NA		Chromium	None reported	1.4E-03		NA	1.4E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	2.5E-03		NA	2.5E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.5E-03		NA	1.5E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	2.6E-06		NA	2.6E-06
			Total Mercury	NA		NA		Total mercury	Immune System	8.1E-04		NA	8.1E-04
			Thallium	NA		NA		Thallium	NOAEL; various	5.7E-04		NA	5.7E-04
			VOCs					**VOCs**					
			Benzene	1.8E-11		NA	1.8E-11	Benzene	Immune System/Blood	3.8E-06		NA	3.8E-06
			SVOCs					**SVOCs**					
			Benz(a)anthracene	4.4E-10		2.0E-10	6.4E-10	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	4.2E-09		1.9E-09	6.1E-09	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	6.4E-10		2.9E-10	9.3E-10	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.3E-09		5.8E-10	1.9E-09	Dibenz(a,h)anthracene		NA		NA	
			Hexachlorobenzene	2.4E-09		8.3E-10	3.2E-09	Hexachlorobenzene	Liver	6.6E-05		2.3E-05	8.8E-05
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	2.5E-06		1.1E-06	3.6E-06
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	2.7E-04		1.3E-04	3.9E-04
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	2.2E-04		1.1E-04	3.3E-04
			Sum of PCBs	3.2E-10		1.5E-10	4.7E-10	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	1.1E-09		1.1E-10	1.2E-09	TEQ as 2,3,7,8-TCDD		NA		NA	
			(North Basin Sediment Total)	3.2E-08		6.3E-09	3.8E-08	(North Basin Sediment Total)		0.01		0.0005	0.01
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.4E-03		NA	1.4E-03
			Arsenic	3.8E-08		3.9E-09	4.2E-08	Arsenic	Skin	2.9E-03		3.0E-04	3.2E-03
			Cadmium	NA		NA		Cadmium	Kidneys	1.1E-03		1.5E-04	1.3E-03
			Chromium	NA		NA		Chromium	None reported	4.0E-03		NA	4.0E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	1.8E-05		NA	1.8E-05
			Iron	NA		NA		Iron	Liver, spleen, lymph system	1.2E-02		NA	1.2E-02
			Manganese	NA		NA		Manganese	Central Nervous System	2.3E-03		NA	2.3E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.3E-03		NA	1.3E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	3.9E-05		NA	3.9E-05
			Thallium	NA		NA		Thallium	NOAEL; various	3.2E-03		NA	3.2E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	6.7E-07		3.0E-07	9.8E-07	Benzo(a)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	2.1E-05		9.5E-06	3.1E-05
			Acenaphthylene					Acenaphthylene	Kidney	1.7E-05		7.6E-06	2.4E-05
			Benz(a)anthracene	6.9E-08		3.1E-08	9.9E-08	Benz(a)anthracene		NA		NA	
			Benzo(b)fluoranthene	8.3E-08		3.7E-08	1.2E-07	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene					Benzo(g,h,i)perylene	Kidney	6.3E-05		2.8E-05	9.2E-05
			Benzo(k)fluoranthene	3.1E-09		1.4E-09	4.4E-09	Benzo(k)fluoranthene		NA		NA	

TABLE 9.4.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Dibenz(a,h)anthracene	1.2E-07		5.4E-08	1.7E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	4.0E-08		1.8E-08	5.7E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene					Naphthalene	Decreased body weight	2.8E-05		1.2E-05	4.0E-05
			Phenanthrene					Phenanthrene	Kidney	1.4E-04		6.3E-05	2.0E-04
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	6.4E-09		6.6E-10	7.0E-09	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-6 Sediment Total)	1.0E-06		4.5E-07	1.5E-06	(Wetland SYW-6 Sediment Total)		0.03		0.001	0.03
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.2E-03		NA	1.2E-03
			Antimony	NA		NA		Antimony	Whole Body/Blood	1.7E-03		NA	1.7E-03
			Arsenic	6.5E-08		NA	6.5E-08	Arsenic	Skin	5.0E-03		5.2E-04	5.6E-03
			Chromium	NA		NA		Chromium	None reported	1.4E-03		NA	1.4E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	6.9E-03		NA	6.9E-03
			Manganese	NA		NA		Manganese	Central Nervous System	2.2E-03		NA	2.2E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.2E-03		NA	1.2E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	3.7E-05		NA	3.7E-05
			Thallium	NA		NA		Thallium	NOAEL; various	4.4E-03		NA	4.4E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	2.8E-09		1.2E-09	4.0E-09	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	2.9E-08		1.3E-08	4.2E-08	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	2.4E-09		1.1E-09	3.5E-09	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	6.9E-09		3.1E-09	9.9E-09	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	1.8E-09		7.9E-10	2.6E-09	Indeno(1,2,3-cd)pyrene		NA		NA	
			PCBs					**PCBs**					
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	1.3E-03		6.3E-04	1.9E-03
			Sum of PCBs	8.4E-10		4.1E-10	1.3E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	6.5E-09		6.8E-10	7.2E-09	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-10 Sediment Total)	1.1E-07		2.0E-08	1.4E-07	(Wetland SYW-10 Sediment Total)		0.03		0.001	0.03
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**					**Inorganics**					
			Aluminum					Aluminum	Skeletal, skin	5.3E-04		NA	5.3E-04
			Antimony					Antimony	Whole Body/Blood	9.8E-04		NA	9.8E-04
			Arsenic	6.9E-08		7.1E-09	7.6E-08	Arsenic	Skin	5.3E-03		5.5E-04	5.9E-03
			Barium					Barium	Cardiovascular System	1.7E-03		NA	1.7E-03
			Cadmium					Cadmium	Kidneys	5.0E-04		7.0E-05	5.7E-04
			Chromium					Chromium	None reported	8.8E-03		NA	8.8E-03
			Copper					Copper	Liver/Kidneys/Forestomach	3.1E-04		NA	3.1E-04
			Cyanide					Cyanide	Whole Body/Blood	9.8E-06		NA	9.8E-06
			Iron					Iron	Liver, spleen, lymph system	5.3E-03		NA	5.3E-03
			Lead					Lead	CNS, blood, whole body	NA		NA	
			Manganese					Manganese	Central Nervous System	1.6E-03		NA	1.6E-03
			Methylmercury					Methylmercury	Developmental Neuropsychological Impairment	2.9E-05		NA	2.9E-05
			Total Mercury					Total mercury	Immune System	8.1E-03		NA	8.1E-03
			Nickel					Nickel	Whole Body/Major Organs	4.7E-04		NA	4.7E-04
			Thallium					Thallium	NOAEL; various	7.9E-04		NA	7.9E-04

TABLE 9.4.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Vanadium					Vanadium	Not Reported/Unknown	5.5E-04		NA	5.5E-04
			VOCs					**VOCs**					
			Benzene	1.2E-08		NA	1.2E-08	Benzene	Immune System/Blood	2.6E-03		NA	2.6E-03
			Chlorobenzene					Chlorobenzene	Liver	1.2E-03		NA	1.2E-03
			Methylene chloride	2.4E-10		NA	2.4E-10	Methylene chloride	Liver	1.8E-05		NA	1.8E-05
			Xylenes					Xylenes	NOAEL; CNS	2.1E-05		NA	2.1E-05
			SVOCs					**SVOCs**					
			Hexachlorobenzene	3.9E-08		1.4E-08	5.3E-08	Hexachlorobenzene	Liver	1.1E-03		3.7E-04	1.4E-03
			Dibenzofuran					Dibenzofuran	Liver	5.8E-04		2.0E-04	7.8E-04
			1,3-Dichlorobenzene					1,3-Dichlorobenzene	Liver/Pituitary Gland	6.7E-04		2.3E-04	9.0E-04
			1,4-Dichlorobenzene	5.6E-09		1.9E-09	7.5E-09	1,4-Dichlorobenzene	Skin/Blood	2.7E-04		9.3E-05	3.6E-04
			Acenaphthylene					Acenaphthylene	Kidney	1.8E-05		8.2E-06	2.6E-05
			Benz(a)anthracene	2.6E-08		1.2E-08	3.8E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	2.0E-07		9.0E-08	2.9E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	2.6E-08		1.2E-08	3.8E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(ghi)perylene					Benzo(ghi)perylene	Kidney	2.8E-05		1.2E-05	4.0E-05
			Benzo(k)fluoranthene	9.6E-10		4.3E-10	1.4E-09	Benzo(k)fluoranthene		NA		NA	
			Chrysene	2.6E-10		1.2E-10	3.8E-10	Chrysene		NA		NA	
			Dibenz(a,h)anthracene	4.4E-08		2.0E-08	6.4E-08	Dibenz(a,h)anthracene		NA		NA	
			Fluoranthene					Fluoranthene	Kidney/Liver/Blood	1.1E-04		4.9E-05	1.6E-04
			Indeno(1,2,3-cd)pyrene	1.0E-08		4.6E-09	1.5E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			2-Methylnaphthalene					2-Methylnaphthalene	Lungs/Decreased body weight	1.1E-03		5.1E-04	1.7E-03
			Naphthalene					Naphthalene	Decreased body weight	6.8E-03		3.1E-03	9.8E-03
			Phenanthrene					Phenanthrene	Kidney	2.3E-04		1.0E-04	3.3E-04
			Pesticides					**Pesticides**					
			Dieldrin	5.1E-10		NA	5.1E-10	Dieldrin	Liver	2.2E-05		NA	2.2E-05
			PCBs					**PCBs**					
			Aroclor 1221					Aroclor 1221	Assumed same as Ar 1016	1.5E-04		7.3E-05	2.2E-04
			Aroclor 1242					Aroclor 1242	Assumed same as Ar 1016	6.4E-04		3.1E-04	9.5E-04
			Aroclor 1248					Aroclor 1248	Assumed same as Ar 1254	1.5E-03		7.0E-04	2.2E-03
			Aroclor 1254					Aroclor 1254	Immune System	9.0E-04		4.3E-04	1.3E-03
			Aroclor 1260					Aroclor 1260	Assumed same as Ar 1254	1.3E-03		6.3E-04	1.9E-03
			Sum of PCBs	3.9E-09		1.9E-09	5.8E-09	PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.1E-07		2.2E-08	2.3E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(South Basin Sediment Total)	6.5E-07		1.8E-07	8.3E-07	(South Basin Sediment Total)		0.05		0.007	0.06
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.1E-03		NA	1.1E-03
			Arsenic	3.5E-08		3.6E-09	3.8E-08	Arsenic	Skin	2.7E-03		2.8E-04	3.0E-03
			Cadmium	NA		NA		Cadmium	Kidneys	5.3E-03		7.3E-04	6.0E-03
			Chromium	NA		NA		Chromium	None reported	1.3E-02		NA	1.3E-02
			Copper	NA		NA		Copper	Liver/Kidneys/Forestomach	8.6E-04		NA	8.6E-04
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	5.5E-06		NA	5.5E-06
			Iron	NA		NA		Iron	Liver, spleen, lymph system	7.4E-03		NA	7.4E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.5E-03		NA	1.5E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.3E-03		NA	1.3E-03
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	3.9E-05		NA	3.9E-05

TABLE 9.4.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Thallium	NA		NA		Thallium	NOAEL; various	1.3E-03		NA	1.3E-03
			SVOCs					**SVOCs**					
			Benz(a)anthracene	1.3E-08		5.6E-09	1.8E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	1.2E-07		5.5E-08	1.8E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	8.5E-09		3.8E-09	1.2E-08	Benzo(b)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	4.6E-09		2.1E-09	6.6E-09	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	8.2E-09		3.7E-09	1.2E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	3.2E-05		1.4E-05	4.6E-05
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	5.2E-04		2.5E-04	7.6E-04
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	2.7E-03		1.3E-03	4.0E-03
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	1.4E-03		6.8E-04	2.1E-03
			Sum of PCBs	3.4E-09		1.6E-09	5.0E-09	Sum of PCBs		NA		NA	
			(Wetland SYW-12 Sediment Total)	1.9E-07		7.5E-08	2.7E-07	(Wetland SYW-12 Sediment Total)		0.04		0.003	0.04
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**					**Inorganics**					
			Antimony	NA		NA		Antimony	Whole Body/Blood	1.1E-03		NA	1.1E-03
			Arsenic	4.7E-08		4.9E-09	5.2E-08	Arsenic	Skin	3.7E-03		3.8E-04	4.1E-03
			Barium	NA		NA		Barium	Cardiovascular System	9.4E-04		NA	9.4E-04
			Cadmium	NA		NA		Cadmium	Kidneys	3.8E-04		5.3E-05	4.3E-04
			Chromium	NA		NA		Chromium	None reported	3.0E-03		NA	3.0E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	4.5E-03		NA	4.5E-03
			Manganese	NA		NA		Manganese	Central Nervous System	1.7E-03		NA	1.7E-03
			Mercury(inorganic)	NA		NA		Mercury(inorganic)	Immune System	1.8E-02		NA	1.8E-02
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	5.5E-04		NA	5.5E-04
			SVOCs					**SVOCs**					
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	5.4E-04		1.9E-04	7.3E-04
			1,4-Dichlorobenzene	7.9E-10		2.7E-10	1.1E-09	1,4-Dichlorobenzene	Skin/Blood	3.8E-05		1.3E-05	5.2E-05
			Hexachlorobenzene	1.6E-08		5.7E-09	2.2E-08	Hexachlorobenzene	Liver	4.5E-04		1.6E-04	6.0E-04
			Benz(a)anthracene	3.1E-08		1.4E-08	4.4E-08	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	2.8E-07		1.3E-07	4.1E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	2.4E-08		1.1E-08	3.5E-08	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	Kidney	2.4E-05		1.1E-05	3.5E-05
			Benzo(k)fluoranthene	2.1E-09		9.6E-10	3.1E-09	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	7.1E-08		3.2E-08	1.0E-07	Dibenz(a,h)anthracene		NA		NA	
			Indeno(1,2,3-cd)pyrene	1.6E-08		7.3E-09	2.3E-08	Indeno(1,2,3-cd)pyrene		NA		NA	
			Phenanthrene	NA		NA		Phenanthrene	Kidney	7.1E-05		3.2E-05	1.0E-04
			Pesticides					**Pesticides**					
			Aldrin	2.4E-09		NA	2.4E-09	Aldrin	Liver	1.7E-04		NA	1.7E-04
			Dieldrin	1.7E-09		NA	1.7E-09	Dieldrin	Liver	7.6E-05		NA	7.6E-05
			PCBs					**PCBs**					
			Aroclor 1242	NA		NA		Aroclor 1242	Assumed same as Ar 1016	1.3E-03		6.3E-04	1.9E-03
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	4.0E-03		1.9E-03	5.9E-03
			Aroclor 1260	NA		NA		Aroclor 1260	Assumed same as Ar 1254	2.0E-03		9.8E-04	3.0E-03
			Sum of PCBs	4.9E-09		2.4E-09	7.3E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	4.9E-07		5.1E-08	5.4E-07	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Wetland SYW-19 Sediment Total)	9.9E-07		2.5E-07	1.2E-06	(Wetland SYW-19 Sediment Total)		0.04		0.004	0.05
						Total Risk Across Seciment	4.0E-06					Total Hazard Across Sediment	0.22

TABLE 9.4.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.6E-03		NA	1.6E-03
			Arsenic	4.6E-08		4.8E-09	5.1E-08	Arsenic	Skin	3.6E-03		3.7E-04	4.0E-03
			Chromium	NA		NA		Chromium	None reported	1.3E-03		NA	1.3E-03
			Iron	NA		NA		Iron	Liver, spleen, lymph system	7.4E-03		NA	7.4E-03
			Manganese	NA		NA		Manganese	Central Nervous System	2.0E-03		NA	2.0E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	1.7E-03		NA	1.7E-03
			SVOCs					**SVOCs**					
			Benzo(a)pyrene	3.5E-09		1.6E-09	5.1E-09	Benzo(a)pyrene		NA		NA	
			Hexachlorobenzene	2.4E-09		8.4E-10	3.3E-09	Hexachlorobenzene	Liver	6.6E-05		2.3E-05	8.9E-05
			(Dredge Spoils - Surface Total)	5.2E-08		7.2E-09	6.0E-08	(Dredge Spoils - Surface Total)		0.02		0.0004	0.02
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**					**Inorganics**					
			Aluminum	NA		NA		Aluminum	Skeletal, skin	1.3E-03		NA	1.3E-03
			Arsenic	4.8E-08		5.0E-09	5.3E-08	Arsenic	Skin	3.8E-03		3.9E-04	4.1E-03
			Cadmium	NA		NA		Cadmium	Kidneys	1.3E-04		1.7E-05	1.4E-04
			Chromium	NA		NA		Chromium	None reported	1.1E-03		NA	1.1E-03
			Cyanide	NA		NA		Cyanide	Whole Body/Blood	5.4E-06		NA	5.4E-06
			Iron	NA		NA		Iron	Liver, spleen, lymph system	6.5E-03		NA	6.5E-03
			Manganese	NA		NA		Manganese	Central Nervous System	2.1E-03		NA	2.1E-03
			Total Mercury	NA		NA		Total Mercury	Immune System	2.1E-02		NA	2.1E-02
			Thallium	NA		NA		Thallium	NOAEL; various	9.6E-04		NA	9.6E-04
			SVOCs					**SVOCs**					
			Benz(a)anthracene	6.7E-09		3.0E-09	9.7E-09	Benz(a)anthracene		NA		NA	
			Benzo(a)pyrene	7.1E-08		3.2E-08	1.0E-07	Benzo(a)pyrene		NA		NA	
			Benzo(b)fluoranthene	6.1E-09		2.8E-09	8.9E-09	Benzo(b)fluoranthene		NA		NA	
			Benzo(g,h,i)perylene	NA		NA		Benzo(g,h,i)perylene	Kidney	5.6E-06		2.5E-06	8.1E-06
			Benzo(k)fluoranthene	6.2E-10		2.8E-10	8.9E-10	Benzo(k)fluoranthene		NA		NA	
			Dibenz(a,h)anthracene	1.6E-08		7.4E-09	2.4E-08	Dibenz(a,h)anthracene		NA		NA	
			Hexachlorobenzene	1.3E-09		4.6E-10	1.8E-09	Hexachlorobenzene	Liver	3.6E-05		1.3E-05	4.9E-05
			Indeno(1,2,3-cd)pyrene	3.5E-09		1.6E-09	5.0E-09	Indeno(1,2,3-cd)pyrene		NA		NA	
			Naphthalene	NA		NA		Naphthalene	Decreased body weight	1.8E-05		8.2E-06	2.7E-05
			Phenanthrene	NA		NA		Phenanthrene	Kidney	5.1E-06		2.3E-06	7.4E-06
			PCBs					**PCBs**					
			Aroclor 1254	NA		NA		Aroclor 1254	Immune System	1.3E-03		6.5E-04	2.0E-03
			Aroclor 1268	NA		NA		Aroclor 1268	Assumed same as Ar 1254	2.3E-03		1.1E-03	3.5E-03
			Sum of PCBs	2.3E-09		1.1E-09	3.5E-09	Sum of PCBs		NA		NA	
			PCDD/PCDFs					**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	2.4E-08		2.5E-09	2.7E-08	TEQ as 2,3,7,8-TCDD		NA		NA	
			(Dredge Spoils - Subsurface Total)	1.8E-07		5.6E-08	2.4E-07	(Dredge Spoils - Subsurface Total)		0.04		0.00	0.04
						Total Risk Across Dredge Spoils	2.4E-07					Total Hazard Across Dredge Spoils	0.04
Surface Water	Surface Water	Onondaga Lake	**Inorganics**					**Inorganics**					
			Cadmium	NA		NA		Cadmium	Kidneys	5.2E-06		9.9E-05	1.0E-04
			Chromium	NA		NA		Chromium	None reported	1.8E-06		7.0E-05	7.1E-05
			Manganese	NA		NA		Manganese	Central Nervous System	1.4E-06		1.6E-05	1.8E-05
			Methylmercury	NA		NA		Methylmercury	Developmental Neuropsychological Impairment	3.1E-08		1.5E-08	4.6E-08

TABLE 9.4.CT
Summary of Receptor Risks and Hazards for COPCs
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Total Mercury	NA		NA		Total mercury	Immune System	6.5E-08		4.4E-07	5.0E-07
			VOCs					**VOCs**					
			Benzene	2.2E-12		3.4E-11	3.6E-11	Benzene	Immune System/Blood	4.6E-07		1.8E-05	1.8E-05
			Chlorobenzene	NA		NA		Chlorobenzene	Liver	7.5E-08		7.3E-06	7.4E-06
			Chloroform	NA		NA		Chloroform	Liver	1.5E-07		3.4E-06	3.6E-06
			SVOCs					**SVOCs**					
			Bromodichloromethane	1.0E-12		8.0E-12	9.0E-12	Bromodichloromethane	Kidney	2.8E-08		5.6E-07	5.9E-07
			1,2-Dichlorobenzene	NA		NA		1,2-Dichlorobenzene	NOAEL	1.5E-08		2.4E-06	2.5E-06
			1,3-Dichlorobenzene	NA		NA		1,3-Dichlorobenzene	Liver/Pituitary Gland	1.4E-06		3.2E-04	3.2E-04
			1,4-Dichlorobenzene	9.9E-13		6.5E-11	6.6E-11	1,4-Dichlorobenzene	Skin/Blood	4.8E-08		7.9E-06	8.0E-06
			1,2,4-Trichlorobenzene	NA		NA		1,2,4-Trichlorobenzene	Adrenal/Liver/Kidney	1.4E-07		4.4E-05	4.4E-05
			(Surface Water - Total)	4.2E-12		1.1E-10	1.1E-10	(Surface Water - Total)		0.00001		0.001	0.001
						Total Risk Across Surface Water	1.1E-10					Total Hazard Across Surface Water	0.001
						Total Risk Across All Media and All Exposure Routes	4.2E-06					Total Hazard Index Across All Media and All Exposure Routes	0.26

Total [Lungs] HI =	0.002	Total [DNI] HI =	0.00070	Total [Kidney] HI =	0.01	Total [Blood] HI =	0.01
Total [Immune System] HI =	0.08	Total [Birth Weight] HI =	0.004	Total [CNS] HI =	0.01	Total [Body Weight] HI =	0.012
Total [Skin] HI =	0.04	Total [NOAEL] HI =	0.01	Total [Liver] HI =	0.06	Total [Whole Body] HI =	0.007

Note: (1) Based on an exposure of 30 years the carcinogenic risk is 2E-03.
(2) N/A = Risk or hazard not calculated
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.1.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Adult (18 and older)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Arsenic (inorganic)	1.8E-05		NA	1.8E-05						
			Manganese	NA		NA							
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	Developmental Neuropsychological Impairment	3.9		NA	3.9
			SVOCs	NA									
			bis(2-ethylhexyl)phthalate	4.9E-06		NA	4.9E-06						
			Hexachlorobenzene	3.2E-06		NA	3.2E-06						
			Pesticides	NA									
			4,4'-DDE	1.8E-06		NA	1.8E-06						
			Aldrin	6.6E-06		NA	6.6E-06						
			delta-BHC	NA		NA							
			Dieldrin	9.3E-06		NA	9.3E-06						
			Heptachlor epoxide	5.8E-06		NA	5.8E-06						
			PCBs	NA				**PCBs (3)**					
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	2.4		NA	2.4
			Aroclor 1248	NA		NA		Aroclor 1248	Assumed same as Ar 1254	-		-	
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	10.3		NA	10.3
			Sum of PCBs	2.8E-04		NA	2.8E-04						
			PCDD/PCDFs	NA									
			TEQ as 2,3,7,8-TCDD	4.5E-04		NA	4.5E-04						
			(Fish Tissue - Total)	7.8E-04		NA	7.8E-04	(Fish Tissue - Total)		16.6		NA	16.6
						Total Risk Across Fish Tissue	7.8E-04					Total Hazard Across Fish Tissue	16.6

TABLE 10.1.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin					Note 1 1.3E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**										
			Arsenic	7.5E-07		3.9E-07	1.1E-06						
			SVOCs										
			Benzo(a)pyrene	1.3E-05		3.0E-05	4.3E-05						
			2-Methylnaphthalene										
			Acenaphthylene										
			Benz(a)anthracene	1.4E-06		3.0E-06	4.4E-06						
			Benzo(b)fluoranthene	1.7E-06		3.7E-06	5.3E-06						
			Benzo(g,h,i)perylene										
			Benzo(k)fluoranthene	6.1E-08		1.4E-07	2.0E-07						
			Dibenz(a,h)anthracene	2.4E-06		5.3E-06	7.7E-06						
			Indeno(1,2,3-cd)pyrene	7.9E-07		1.8E-06	2.6E-06						
			Naphthalene										
			Phenanthrene										
			(Wetland SYW-6 Sediment Total)	2.0E-05		4.4E-05	6.5E-05						Note 2
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**										
			Arsenic	1.3E-06		6.7E-07	2.0E-06						
			SVOCs										
			Benzo(a)pyrene	5.8E-07		1.3E-06	1.9E-06						
			(Wetland SYW-10 Sediment Total)	1.9E-06		1.9E-06	3.8E-06						Note 2
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**										
			SVOCs										
			Benzo(a)pyrene	1.3E-06		2.8E-06	4.1E-06						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	1.3E-06		6.8E-07	2.0E-06						
			(South Basin Sediment Total)	2.6E-06		3.5E-06	6.1E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**										
			SVOCs										
			Benzo(a)pyrene	7.8E-07		1.7E-06	2.5E-06						
			(Wetland SYW-12 Sediment Total)	7.8E-07		1.7E-06	2.5E-06						Note 2

TABLE 10.1.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**										
			SVOCs										
			Benzo(a)pyrene	1.8E-06		4.0E-06	5.7E-06						
			Dibenz(a,h)anthracene	4.5E-07		1.0E-06	1.5E-06						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	3.1E-06		1.6E-06	4.7E-06						
			(Wetland SYW-19 Sediment Total)	5.3E-06		6.6E-06	1.2E-05						Note 2
			Total Risk Across Sediment				8.9E-05		Total Hazard Across Sediment				Note 2
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**										
			Arsenic	9.3E-07		4.8E-07	1.4E-06						
			(Dredge Spoils - Surface Total)	9.3E-07		4.8E-07	1.4E-06						Note 2
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)					NA						NA
			Total Risk across Dredge Spoils				1.4E-06		Total Hazard across Dredge Spoils				Note 2
Surface Water	Surface Water	Onondaga Lake					Note 2						
			Total Risk Across Surface Water				Note 2		Total Hazard Across Surface Water				Note 2
			Total Risk Across All Media and All Exposure Routes				8.7E-04		Total Hazard Index Across All Media and All Exposure Routes				16.6

Total [Lungs] HI =		Total [DNI] HI =	3.9	Total [Kidney] HI =		Total [Blood] HI =	
Total [Immune System] HI =	10.3	Total [Birth Weight] HI =	2.4	Total [CNS] HI =		Total [Body Weight] HI =	
Total [Skin] HI =		Total [NOAEL] HI =		Total [Liver] HI =		Total [Whole Body] HI =	

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.2.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Young Child (less than 6)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Arsenic (inorganic)	5.7E-06		NA	5.7E-06	Antimony	Whole Body/Blood	1.4		NA	1.4
								Mercury (as methylmercury)	Developmental Neuropsychological Impairment	6.0		NA	6.0
			SVOCs										
			bis(2-ethylhexyl)phthalate	1.5E-06		NA	1.5E-06						
			Pesticides										
			Aldrin	2.0E-06		NA	2.0E-06						
			Dieldrin	2.9E-06		NA	2.9E-06						
			Heptachlor epoxide	1.8E-06		NA	1.8E-06						
			PCBs					**PCBs**					
								Sum of Low MW PCBs	Assumed same as Ar 1016	3.8		NA	3.8
								Sum of High MW PCBs	Assumed same as Ar 1254	16.0		NA	16.0
			Sum of PCBs	8.7E-05		NA	8.7E-05						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	1.4E-04		NA	1.4E-04						
			(Fish Tissue - Total)	2.4E-04		NA	2.4E-04	(Fish Tissue - Total)		27.2		NA	27.2
						Total Risk Across Fish Tissue	2.4E-04					Total Hazard Across Fish Tissue	27.2

TABLE 10.2.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**										
			Arsenic	8.0E-07		9.0E-07	1.7E-06						
			(North Basin Sediment Total)	8.0E-07		9.0E-07	1.7E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW 6 (North Basin)					NA						NA
Sediment	Sediments	10 (North					NA						NA
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**										
			Arsenic	8.1E-07		9.2E-07	1.7E-06						
			SVOCs										
			Hexachlorobenzene	4.7E-07		1.8E-06	2.2E-06						
			Benz(a)anthracene	3.1E-07		1.5E-06	1.8E-06						
			Benzo(a)pyrene	2.4E-06		1.2E-05	1.4E-05						
			Benzo(b)fluoranthene	3.1E-07		1.5E-06	1.9E-06						
			Dibenz(a,h)anthracene	5.2E-07		2.6E-06	3.1E-06						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	2.5E-06		2.8E-06	5.3E-06						
			(South Basin Sediment Total)	7.3E-06		2.3E-05	3.0E-05						Note 2
Sediment	Wetland Sediments	Wetland SYW 12 (South Basin)					NA						NA
Sediment	Wetland Sediments	Wetland SYW 19 (South Basin)					NA						NA
						Total Risk Across Sediment	3.2E-05					Total Hazard Across Sediment	Note 2
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)					NA						NA
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)					NA						NA
						Total Risk Across Dredge Spoil Soils	NA					Total Hazard Across Dredge Spoil Soils	NA
Surface Water	Surface Water	Onondaga Lake					Note 2						Note 2

TABLE 10.2.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
						Total Risk Across Surface Water	Note 2					Total Hazard Across Surface Water	Note 2
						Total Risk Across All Media and All Exposure Routes	2.7E-04					Total Hazard Index Across All Media and All Exposure Routes	27.2

Total [Lungs] HI =		Total [DNI] HI =	6.0	Total [Kidney] HI =		Total [Blood] HI =	1.4
Total [Immune System] HI =	16.0	Total [Birth Weight] HI =	3.8	Total [CNS] HI =		Total [Body Weight] HI =	
Total [Skin] HI =		Total [NOAEL] HI =		Total [Liver] HI =		Total [Whole Body] HI =	1.4

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.3.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Older Child (6 to < 18)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Arsenic (inorganic)	8.0E-06		NA	8.0E-06						
									Developmental Neuropsychological			NA	
								Mercury (as methylmercury)	Impairment	4.2			4.2
			SVOCs										
			bis(2-ethylhexyl)phthalate	2.1E-06		NA	2.1E-06						
			Hexachlorobenzene	1.4E-06		NA	1.4E-06						
			Pesticides										
			Aldrin	2.9E-06		NA	2.9E-06						
			delta-BHC	NA		NA							
			Dieldrin	4.1E-06		NA	4.1E-06						
			Heptachlor epoxide	2.5E-06		NA	2.5E-06						
			PCBs										
								Sum of Low MW PCBs	Assumed same as Ar 1016	2.6		NA	2.6
								Sum of High MW PCBs	Assumed same as Ar 1254	11.2		NA	11.2
			Sum of PCBs	1.2E-04		NA	1.2E-04	Sum of PCBs	NA	NA		NA	
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	2.0E-04		NA	2.0E-04						
			(Fish Tissue - Total)	3.4E-04			3.4E-04	(Fish Tissue - Total)		18.0			18.0
						Total Risk Across Fish Tissue	3.4E-04					Total Hazard Across Fish Tissue	18.0

TABLE 10.3.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Northern Basin													
Sediment	Sediments	North Basin	**Inorganics**										
			Arsenic	2.8E-07		1.2E-06	1.5E-06						
			SVOCs										
			Benzo(a)pyrene	5.5E-08		1.0E-06	1.1E-06						
			(North Basin Sediment Total)	3.3E-07		2.3E-06	2.6E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**										
			Arsenic	4.9E-07		2.1E-06	2.6E-06						
			SVOCs										
			Benzo(a)pyrene	8.8E-06		1.7E-04	1.8E-04						
			Benz(a)anthracene	8.9E-07		1.7E-05	1.8E-05						
			Benzo(b)fluoranthene	1.1E-06		2.0E-05	2.2E-05						
			Dibenz(a,h)anthracene	1.6E-06		2.9E-05	3.1E-05						
			Indeno(1,2,3-cd)pyrene	5.2E-07		9.8E-06	1.0E-05						
			(Wetland SYW-6 Sediment Total)	1.3E-05		2.4E-04	2.6E-04						Note 2
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)	**Inorganics**										
			Arsenic	8.5E-07		3.7E-06	4.5E-06						
			SVOCs										
			Benzo(a)pyrene	3.8E-07		7.1E-06	7.5E-06						
			Dibenz(a,h)anthracene	8.9E-08		1.7E-06	1.8E-06						
			(Wetland SYW-10 Sediment Total)	1.3E-06		1.3E-05	1.4E-05						Note 2
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**										
			Arsenic	2.8E-07		1.2E-06	1.5E-06						
			SVOCs										
			Hexachlorobenzene	1.6E-07		2.4E-06	2.5E-06						
			Benz(a)anthracene	1.1E-07		2.1E-06	2.2E-06						
			Benzo(a)pyrene	8.3E-07		1.6E-05	1.6E-05						
			Benzo(b)fluoranthene	1.1E-07		2.1E-06	2.2E-06						
			Dibenz(a,h)anthracene	1.8E-07		3.4E-06	3.6E-06						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	8.6E-07		3.8E-06	4.6E-06						
			(South Basin Sediment Total)	2.5E-06		3.1E-05	3.3E-05						Note 2
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)	**Inorganics**										
			SVOCs										
			Benz(a)anthracene	5.2E-08		9.8E-07	1.0E-06						
			Benzo(a)pyrene	5.1E-07		9.6E-06	1.0E-05						
			(Wetland SYW-12 Sediment Total)	5.6E-07		1.1E-05	1.1E-05						Note 2

TABLE 10.3.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**										
			Arsenic	2.0E-07		8.6E-07	1.1E-06						
			SVOCs										
			Hexachlorobenzene	6.8E-08		9.9E-07	1.1E-06						
			Benz(a)anthracene	1.3E-07		2.4E-06	2.5E-06						
			Benzo(a)pyrene	1.2E-06		2.2E-05	2.3E-05						
			Benzo(b)fluoranthene	1.0E-07		1.9E-06	2.0E-06						
			Dibenz(a,h)anthracene	3.0E-07		5.6E-06	5.9E-06						
			Indeno(1,2,3-cd)pyrene	6.7E-08		1.3E-06	1.3E-06						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	2.0E-06		8.8E-06	1.1E-05						
			(Wetland SYW-19 Sediment Total)	4.0E-06		4.4E-05	4.8E-05						Note 2
							Total Risk Across Sediment						Total Hazard Across Sediment
							3.7E-04						Note 2
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)	**Inorganics**										
			Arsenic	6.1E-07		2.6E-06	3.3E-06						
			(Dredge Spoils - Surface Total)	6.1E-07		2.6E-06	3.3E-06						Note 2
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)					NA						NA
							Total Risk Across Dredge Spoils						Total Hazard Across Dredge Spoils
							3.3E-06						Note 2
Surface Water	Surface Water	Onondaga Lake					Note 2						Note 2
							Total Risk Across Surface Water						Total Hazard Across Surface Water
							Note 2						Note 2
							Total Risk Across All Media and All Exposure Routes						Total Risk Across All Media and All Exposure Routes
							7.1E-04						18.0

Total [Lungs] HI =		Total [DNI] HI =	4.2	Total [Kidney] HI =		Total [Blood] HI =	
Total [Immune System] HI =	11.2	Total [Birth Weight] HI =	2.6	Total [CNS] HI =		Total [Body Weight] HI =	
Total [Skin] HI =		Total [NOAEL] HI =		Total [Liver] HI =		Total [Whole Body] HI =	

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.4.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet					NA						NA
						Total Risk Across Fish Tissue	NA					Total Hazard Across Fish Tissue	NA
Northern Basin													
Sediment	Sediments	North Basin					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**										
			SVOCs										
			Benzo(a)pyrene	1.7E-06		3.4E-06	5.1E-06						
			(Wetland SYW-6 Sediment Total)	1.7E-06		3.4E-06	5.1E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)					Note 2						Note 2
Southern Basin													
Sediment	Sediments	South Basin	**Inorganics**										
			SVOCs										
			Benzo(a)pyrene	5.0E-07		1.0E-06	1.5E-06						
			(South Basin Sediment Total)	5.0E-07		1.0E-06	1.5E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)					Note 1 7.6E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)	**Inorganics**										
			SVOCs										
			Benzo(a)pyrene	7.0E-07		1.4E-06	2.1E-06						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	1.2E-06		5.7E-07	1.8E-06						
			(Wetland SYW-19 Sediment Total)	1.9E-06		2.0E-06	3.9E-06						Note 2
						Total Risk Across Sediment	1.0E-05					Total Hazard Across Sediment	Note 2
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)					Note 2						Note 2
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)					Note 1 1.1E-06						Note 2

TABLE 10.4.RME
Risk Assessment Summary
Reasonable Maximum Exposure
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
			Total Rick Across Dredge Spoils				1.1E-06			Total Hazard Across Dredge Spoils			Note 2
Surface Water	Surface Water	Onondaga Lake					Note 2						Note 2
			Total Risk Across Surface Water				Note 2			Total Hazard Across Surface Water			Note 2
			Total Risk Across All Media and All Exposure Routes				1.2E-05			Total Hazard Index Across All Media and All Exposure Routes			Note 2

Total [Lungs] HI =	Total [DNI] HI =	Total [Kidney] HI =	Total [Blood] HI =
Total [Immune System] HI =	Total [Birth Weight] HI =	Total [CNS] HI =	Total [Body Weight] HI =
Total [Skin] HI =	Total [NOAEL] HI =	Total [Liver] HI =	Total [Whole Body] HI =

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.1.CT
Risk Assessment Summary
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Adult (18 and older)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Arsenic (inorganic)	1.8E-06		NA	1.8E-06						
									Developmental				
								Mercury (as methylmercury)	Neuropsychological Impairment	1.2			1.2
						NA							
			PCBs			NA		**PCBs**					
				NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	2.2		NA	2.2
			Sum of PCBs	9.0E-06		NA	9.0E-06						
			PCDD/PCDFs			NA							
			TEQ as 2,3,7,8-TCDD	2.9E-05		NA	2.9E-05						
			(Fish Tissue - Total)	4.0E-05		NA	4.0E-05	(Fish Tissue - Total)		3.4		NA	3.4
						Total Risk Across Fish Fillet	4.0E-05					Total Hazard Across Fish Fillet	3.4
Northern Basin													
Sediment	Sediments	North Basin					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)											
			SVOCs										
			Benzo(a)pyrene	1.5E-06		3.3E-06	4.7E-06						
			(Wetland SYW-6 Sediment Total)	1.5E-06		3.3E-06	4.7E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)					Note 2						Note 2
Southern Basin													
Sediment	Sediments	South Basin					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)					Note 2						Note 2
						Total Risk Across Sediment	4.7E-06					Total Hazard Across Sediment	Note 2
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)					Note 2						Note 2

TABLE 10.1.CT
Risk Assessment Summary
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)	**Inorganics**				NA						NA
				Total Risk Across Dredge Spoil Soils			Note 2					Total Hazard Across Dredge Spoil Soils	Note 2
Surface Water	Surface Water	Onondaga Lake	**Inorganics**				Note 2						Note 2
							Total Risk Across Surface Water Note 2						Total Hazard Across Surface Water Note 2
							Total Risk Across All Media and All Exposure Routes 4.4E-05						Total Hazard Index Across All Media and All Exposure Routes 3.4

Total [Lungs] HI =		Total [DNI] HI =	1.2	Total [Kidney] HI =		Total [Blood] HI =	
Total [Immune System] HI =	2.2	Total [Birth Weight] HI =		Total [CNS] HI =		Total [Body Weight] HI =	
Total [Skin] HI =		Total [NOAEL] HI =		Total [Liver] HI =		Total [Whole Body] HI =	

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.2.CT
Risk Assessment Summary
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Young Child (less than 6)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Arsenic (inorganic)	1.8E-06		NA	1.8E-06						
			Mercury (as methylmercury)	NA		NA		Mercury (as methylmercury)	Developmental Neuropsychological Impairment	1.9			1.9
			PCBs					**PCBs**					
			Sum of Low MW PCBs	NA		NA		Sum of Low MW PCBs	Assumed same as Ar 1016	0.8		NA	0.8
			Sum of High MW PCBs	NA		NA		Sum of High MW PCBs	Assumed same as Ar 1254	3.4		NA	3.4
			Sum of PCBs	9.3E-06		NA	9.3E-06						
			PCDD/PCDFs										
			TEQ as 2,3,7,8-TCDD	3.0E-05		NA	3.0E-05						
			(Fish Tissue - Total)	4.1E-05		NA	4.1E-05	(Fish Tissue - Total)		6.2		NA	6.2
							Total Risk Across Fish Tissue						Total Hazard Across Fish Tissue
Northern Basin													
Sediment	Sediments	North Basin					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)					NA						NA
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)					NA						NA
Southern Basin													
Sediment	Sediments	South Basin					Note 1 2.0E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)					NA						NA
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)					NA						NA
							Total Risks Across Sediments						Total Hazard Across Sediments
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)					NA						NA
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)					NA						NA
							Total Risks Across Dredge Spoil Soils						Total Hazard Across Dredge Spoil Soils

TABLE 10.2.CT
Risk Assessment Summary
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Onondaga Lake					Note 2						Note 2

Total Risk Across Surface Water	Note 2	Total Hazard Across Surface Water	Note 2
Total Risk Across All Media and All Exposure Routes	4.1E-05	Total Hazard Index Across All Media and All Exposure Routes	6.2

Total [Lungs] HI =		Total [DNI] HI =	1.9	Total [Kidney] HI =		Total [Blood] HI =	
Total [Immune System] HI =	3.4	Total [Birth Weight] HI =	0.8	Total [CNS] HI =		Total [Body Weight] HI =	
Total [Skin] HI =		Total [NOAEL] HI =		Total [Liver] HI =		Total [Whole Body] HI =	

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.3.CT
Risk Assessment Summary
Central Tendency
Onondaga Lake

Scenario Timeframe: Current/Future
Receptor Population: Recreation
Receptor Age: Older Child (6 to < 18)

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet	**Inorganics**					**Inorganics**					
			Arsenic (inorganic)	1.9E-06		NA	1.9E-06						
									Developmental Neuropsychological				
								Mercury (as methylmercury)	Impairment	1.3			1.3
			PCBs					**PCBs**					
								Sum of High MW PCBs	Assumed same as Ar 1254	2.4		NA	2.4
			Sum of PCBs	9.8E-06		NA	9.8E-06						
			PCDD/PCDFs			NA		**PCDD/PCDFs**					
			TEQ as 2,3,7,8-TCDD	3.1E-05		NA	3.1E-05						
			(Fish Tissue - Total)	4.3E-05		NA	4.3E-05	(Fish Tissue - Total)		3.7		NA	3.7
							Total Risk Across Fish Tissue	4.3E-05					Total Hazard Across Fish tissue	3.7
Northern Basin													
Sediment	Sediments	North Basin					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)	**Inorganics**										
			SVOCs										
			Benzo(a)pyrene	2.4E-06		6.7E-06	9.1E-06						
			Benzo(b)fluoranthene	2.9E-07		8.3E-07	1.1E-06						
			Dibenz(a,h)anthracene	4.2E-07		1.2E-06	1.6E-06						
			(Wetland SYW-6 Sediment Total)	3.1E-06		8.7E-06	1.2E-05						Note 2
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)					Note 1 1.0E-06						Note 2
Southern Basin													
Sediment	Sediments	South Basin					Note 1 1.0E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)					Note 1 1.4E-06						Note 2
							Total Risk Across Sediment	1.2E-05					Total Hazard Across Sediment	Note 2

TABLE 10.3.CT
Risk Assessment Summary
Central Tendency
Onondaga Lake

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)					Note 2						Note 2
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)					NA						NA
				Total Risk Across Dredge Spoil Soils			Note 2					Total Hazards Across Dredge Spoil Soils	Note 2
Surface Water	Surface Water	Onondaga Lake					Note 2						Note 2
							Total Risk Across Surface Water	Note 2				Total Hazard Across Surface Water	Note 2
							Total Risk Across All Media and All Exposure Routes	5.5E-05				Total Hazard Index Across All Media and All Exposure Routes	3.7

Total [Lungs] HI =		Total [DNI] HI =		Total [Kidney] HI =		Total [Blood] HI =	
Total [Immune System] HI =		Total [Birth Weight] HI =		Total [CNS] HI =		Total [Body Weight] HI =	
Total [Skin] HI =		Total [NOAEL] HI =		Total [Liver] HI =		Total [Whole Body] HI =	

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System

TABLE 10.4.CT
Risk Assessment Summary
Central Tendency
Onondaga Lake

Scenario Timeframe: Future
Receptor Population: Construction Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical	Carcinogenic Risk				Chemical	Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total		Primary Target Organ	Ingestion	Inhalation	Dermal	Exposure Routes Total
Fish	Fish Tissue	Fish Fillet					NA						NA
						Total Risk Across Fish Tissue	NA					Total Hazard Across Fish Tissue	NA
Northern Basin													
Sediment	Sediments	North Basin					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-6 (North Basin)					Note 1 1.5E-06						Note 2
Sediment	Wetland Sediments	Wetland SYW-10 (North Basin)					Note 2						Note 2
Southern Basin													
Sediment	Sediments	South Basin					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-12 (South Basin)					Note 2						Note 2
Sediment	Wetland Sediments	Wetland SYW-19 (South Basin)					Note 1 1.2E-06						Note 2
						Total Risk Across Sediment	Note 1					Total Hazard Across Sediment	Note 2
Soil	Surface Soils	Dredge Spoil Soils (0-3.5 ft)					Note 2						Note 2
Soil	Subsurface Soils	Dredge Spoil Soils (0-11.7 ft)					Note 2						Note 2
						Total Risk Across Dredge Spoils	Note 2					Total Hazard Across Dredge Spoils	Note 2
Surface Water	Surface Water	Onondaga Lake					Note 2						Note 2
						Total Risk Across Surface Water	Note 2					Total Hazard Across Surface Water	Note 2
						Total Risk Across All Media and All Exposure Routes	Note 1					Total Hazard Index Across All Media and All Exposure Routes	Note 2

Total [Lungs] HI =		Total [DNI] HI =		Total [Kidney] HI =		Total [Blood] HI =	
Total [Immune System] HI =		Total [Birth Weight] HI =		Total [CNS] HI =		Total [Body Weight] HI =	
Total [Skin] HI =		Total [NOAEL] HI =		Total [Liver] HI =		Total [Whole Body] HI =	

Note: (1) Total Exposure exceeds target levels, but no individual chemicals exceed target levels. Not included in risk and hazard totals
(2) Total Cancer Risk or Non-Cancer hazard does not exceed target levels
(3) Primary Target Organ for Aroclor 1016 is Reduced Birth Weight and for Aroclor 1254 is Immune System.
(4) Sediment total includes northern and southern basin sediments and all 4 wetlands
(5) Target Organ Totals: DNI: Developmental Neuropsychological Impairment
NOAEL : No Observed Adverse Effect Level
CNS: Central Nervous System