Table 3.D-55
Pond Information for the Tier II Assessment

Pond	Representative Area	Surface Area (acres)	Average Pond Depth (feet)	Percent Organic Material	Distance to Road(7)	Distance Weighted Average Deposition Rate (mg/m2)
Van Cortlandt Lake	Jerome Park/ Van Cortlandt Park South	15(5)	3 to 4 feet(3)=3.5 estimate	2-26% (8), 14% estimated median value	Closest roads farther than100 feet are 265, 183, 153, 125, and 137 feet The average of these is 173 feet	0.95
Turtle Pond, Central Park	Upper East Side	2.6(9)	10(9)	4%(9)	212 and 248 feet for nearest road or path, average 230 feet	1.24
The Lake, Central Park	Upper East Side	18.7(6)	3.5(6)	10-15% by weight(6)=12.5% estimated median value	Closest road farther than 100 feet or more is 118 feet. Other distances are 40 feet, 80 feet, 60 feet.	1.29
Wolfe's Pond, Wolfe's Pond Park	Lemon Creek/ Wolfe' Pond Park	15.3(4)	5.5 (1)	Extremely High (2), used 14% median value from Van Cortlandt	Closest roads farther than 100 feet are 111 feet, 108 feet, 200 feet, 128 feet, and 277 feet. The average distance is 164.8 feet.	1.01
Acme Pond, Wolfe's Pond Park	Lemon Creek/ Wolfe' Pond Park	2.9(4)	2 (2)	Extremely High (2) used 14% median value from Van Cortlandt	Closest roads farther than 100 feet are 121 feet and 327 feet (Hyland Boulevard) and 540 feet. Average distance to Hyland Boulevard is 224 feet.	1.24

(1) Spencer, S. 2001. Personal communication between Mr. Shawn Spencer, NYCDPR, Staten Island, and Ms. Sandra Collins, PBS&J, on 29 March 2001.
(2) Spencer, S. 2001. Personal communication between Mr. Shawn Spencer, NYCDPR, Staten Island, and Ms. Sandra Collins, PBS&J, on 27 March 2001.
(3) Brown, M. 2001. Personal communication between Mr. Mike Brown, NYCDPR, and Ms. Sandra Collins, PBS&J, on 23 March 2001.
(4) NYCDEP. 1999. Wolfe's Pond and Sweet Brook Drainage Plans, Draft, CEQR No. 97DEP006, 19 May 1999.
(5) NYCDPR NRG. 1990b. Natural Areas Management Plan Van Cortlandt Park, Bronx.
(6) Kruzansky, R. 2001. Personal communication between Mr. Richard Kruzansky, Central Park Conservancy, and Ms. Sandra Collins, PBS&J, on 20 February 2001.
(7) Distances measured from aerial photographs.
(8) Brown, M. 2001. Personal communication between Mr. Mike Brown, NYCDPR, and Ms. Sandra Collins, PBS&J, on 4 April 2001.
(9) Kruzansky, R., 2001. Personal communication between Mr. Richard Kruzansky, Central Park Conservancy, and Ms. Sandra Collins, PBS&J, in December 2000.

Table 3.D-56.
Summary of analysis and risk characterization for Turtle Pond.

Adulticide	Appl. Rate (lb/ac)	Water Conc. (ppm)		End Point				Hazard Quotient	
		No Part	Part.	Biological Group	Receptor	Conc. (ppm)	UF	No Part.	Part.
Sumithrin	0.0036	0.00001459	0.00000091	Fish	Bluegill sunfish	0.0158	50	0.05	0.00288
				Crustacean	*Daphnia magna*	300	50	0.0000024316	0.0000001519
Permethrin	0.021	0.00008510	0.00001143	Crustacean	*Daphnia magna*	0.000039	50	109.11	14.65
				Aquatic insect	Midge, larvae	0.00056	50	7.6	1.2
				Mollusks	Pond snail	100	50	0.00004255	0.0000057142
				Fish	Fathead minnow	0.0041	10	0.21	0.03
Resmethrin	0.007	0.00002837	0.00000163	Fish	Rainbow trout	0.00028	50	5.07	0.29
				Crustacean	*Daphnia magna*	6.20E-05	10	4.58	0.26
Malathion	0.054	0.00021884	0.00018285	Crustacean	*Daphnia magna*	0.0001	10	21.88	18.28
				Aquatic insect	Stonefly, naiad	0.00069	50	15.86	13.25
				Fish	Rainbow trout	0.004	50	2.74	2.29
				Amphibian	Chorus frog, tadpole	0.2	50	0.05	0.05
Naled	0.02	0.00008105	0.00007932	Crustacean	*Daphnia magna*	0.000098	10	8.27	8.09
				Aquatic insect	Stonefly, larva	0.008	50	0.51	0.50
				Fish	Fathead minnow	0.015	10	0.05	0.05
				Green algae (plant)	Green algae	0.02	50	0.2	0.2
PBO	0.021	0.00008510	0.00008414	Amphibian	Chorus frog	0.21	50	0.01	0.01
				Crustacean	*Daphnia magna*	0.12	10	0.01	0.01
				Fish	Fathead minnow	0.11	10	0.02	0.02

Table 3.D-57
HQs for freshwater aquatic species exposed to adulticides in runoff after considering the effects of partitioning in three distributions of land surfaces.

Active Ingredient	Biological Group	Common Name	End Point	End Point Concentrations (ppm)	UF	HQ Concrete	HQ Equal Distribution	HQ Soil
Sumithrin								
	Crustacea	*Daphnia magna*	EC50	300	50	0.01	9.7E-05	3.7E-05
	Fish	Bluegill sunfish	LC50	0.0158	50	200	1.8	0.70
Permethrin								
	Crustacea	*Daphnia magna*	EC50	3.90E-05	50	470,000	10,000	3,800
	Aquatic Insect Larvae	Midge, larvae	LC50	0.00056	50	33,000	700	270
	Mollusks	Pond snail	LC50	100	50	0.18	0.0039	0.0015
	Fish	Fathead minnow	LOEC	0.0041	10	900	19	7.3
Resmethrin								
	Crustacea	*Daphnia magna*	LOEC	6.20E-05	10	19,000	160	63
	Fishes	Rainbow trout	LC50	0.00028	50	21,000	180	70
PBO								
	Crustacea	*Daphnia magna*	LOEC	0.12	10	31	28	25
	Fishes	Fathead minnow	LOEC	0.11	10	34	31	27
	Amphibian	Chorus frog	LC50	0.21	50	88	81	71
Naled								
	Crustacea	*Daphnia magna*	LOEC	9.80E-05	10	36,000	31,000	26,000
	Aquatic Insect Larvae	Stonefly	LC50	0.008	50	2,200	1,900	1,600
	Fish	Fathead minnow	LOEC	0.015	10	230	200	170
	Green algae (plant)	Green algae	EC50	0.02	50	880	750	620
Malathion								
	Crustacea	*Daphnia magna*	LOEC	0.0001	10	94,000	39,000	19,000
	Aquatic Insect Larvae	Stonefly, naiad	LC50	0.00069	50	68,000	28,000	14,000
	Fish	Rainbow trout	LC50	0.004	50	12,000	4,900	2,400
	Amphibians	Chorus frog, tadpole	LC50	0.2	50	240	97	47

Table 3.D-58
Hazard quotients for salt water aquatic species exposed to adulticides in runoff after considering the effects of partitioning in three distributions of land surfaces.

Pesticide	Biological Group	Common Name	End Point	End Point Concentration (ppm)	UF	HQ Concrete	HQ Equal Distribution	HQ Soil
Sumithrin								
	Fish	Rainbow trout	LC50	0.0014	50	2,200	21	7.8
Permethrin								
	Crustacea	Stone crab	EC50	1.80E-05	50	1,000,000	22,000	8,300
	Mollusk	Pacific oyster	LC50	6.5	50	2.8	0.06	0.023
	Fish	Atlantic salmon	LC50	0.0015	50	12,000	260	100
	Brown algae	Diatom	EC50	0.092	50	200	4.2	1.6
Resmethrin								
	Mollusk	Eastern oyster, spat	EC50	1.79	50	3.4	0.028	0.011
	Fish	Rainbow trout	LC50	0.00028	50	21,000	180	69
PBO								
	Crustacea	Pink shrimp	LC50	2.2	50	8.4	7.7	6.8
	Mollusk	Eastern oyster	EC50	0.23	50	80	74	65
	Fish	Rainbow trout	LC50	1.66	50	11	10	9
	Fish	Sheepshead minnow	LC50	1.8	50	10	9	8
Naled								
	Crustacea	Mysid	LC50	0.0088	50	2,000	1,700	1,400
	Mollusk	Eastern oyster	EC50	0.091	50	190	160	140
	Fish	Sheepshead minnow	LC50	1.2	50	14	12	10
	Fish	Rainbow trout	LC50	0.16	50	110	94	78
	Brown algae	Marine diatom	EC50	0.015	50	1,200	1,000	830
Malathion								
	Crustacean	Gammarus	LD50	0.0005	50	94,000	39,000	19,000
	Mollusk	Eastern oyster	EC50	0.0029	50	16,000	6,700	3,300
	Fish	Sheepshead minnow	LC50	0.033	50	1,400	590	290

Table 3.D-59
Effect of rainfall discharging directly to a fresh water wetland on hazard quotients (HQ) for aquatic species.

Pesticide	Biol. Group	Common Name	0.25" Rainfall HQ [1]	0.375" Rainfall HQ [1]	0.5" Rainfall HQ [1]
Sumithrin					
	Crustacean	*Daphnia magna*	9.7E-05	6.4E-05	4.8E-05
	Fish	Bluegill sunfish	1.8	1.2	0.92
Permethrin					
	Crustacean	*Daphnia magna*	10,000	6,700	5,000
	Aquatic Insect Larvae	Midge, larvae	700	460	350
	Mollusks	Pond snail	0.0039	0.0026	0.002
	Fish	Fathead minnow	19	13	9.5
Resmethrin					
	Crustacean	*Daphnia magna*	160	110	81
	Fishes	Rainbow trout	180	120	89
PBO					
	Crustacean	*Daphnia magna*	28	19	14
	Fishes	Fathead minnow	31	21	15
	Amphibian	Chorus frog	81	54	40
Naled					
	Crustacean	*Daphnia magna*	31,000	20,000	15,000
	Aquatic Insect Larvae	Stonefly	1,900	1,200	940
	Fish	Fathead minnow	200	130	100
	Green algae (plant)	Green algae	750	500	380
Malathion					
	Crustacean	*Daphnia magna*	39,000	26,000	19,500
	Aquatic Insect Larvae	Stonefly, naiad	28,000	19,000	14,000
	Fish	Rainbow trout	4,900	3,200	2,400
	Amphibians	Chorus frog, tadpole	98	65	49

Note: [1] Assumes land cover is equal mix of concrete, asphalt, and soil.