TABLE 1

SELECTION OF EXPOSURE PATHWAYS

Wastebeds 1-8 Bike Trail

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Surface Soil	Surface soil	Air on bike trail: fugitive dust from surface soil near proposed bike trail	Recreational user	Child (0-12 yrs)	Inhalation of Fugitive Dust	Quantitative	Children who live in nearby residential areas would be expected to use the bike trail both with their parents and alone
					Adolescent (12-16 yrs)	Inhalation of Fugitive Dust	Quantitative	Adolescents who live in nearby residential areas would be expected to use the bike trail
					Adult (16-30 yrs)	Inhalation of Fugitive Dust	Quantitative	Adults who live in nearby residential areas would be expected to use the bike trail
				Trail Maintenance worker	Adult	Inhalation of Fugitive Dust	Qualitative	Maintenance workers would be expected to pick up garbage and tend to vegetation along the trail as well as perform necessary maintenance.
			Air off bike trail: fugitive dust from surface soil near proposed bike trail	Recreational user	Adolescent (12-16 yrs)	Inhalation of Fugitive Dust	Quantitative	Adolescents who use the bike trail would also be expected to go off the trail to explore the area
					Adult (16-30 yrs)	Inhalation of Fugitive Dust	Quantitative	Adults who use the bike trail would also be expected to go off the trail to explore the area
			Off bike trail: surface soil near proposed bike trail	Recreational user	Adolescent (12-16 yrs)	Dermal	Quantitative	Adolescents who use the bike trail would also be expected to go off the trail to explore the area
						Ingestion	Quantitative	
					Adult (16-30 yrs)	Dermal	Quantitative	Adults who use the bike trail would also be expected to go off the trail to explore the area
						Ingestion	Quantitative	
			Surface Soil along propposed bike trail route	Construction worker	Adult	Ingestion	Quantitative	Construction workers building the bike trail would be exposed to site soils along the bike trail
						Dermal	Quantitative	Construction workers building the bike trail would be exposed to site soils along the bike trail
			Air: fugitive dust from surface soil near proposed bike trail	Construction worker	Adult	Inhalation of Fugitive Dust	Quantitative	Construction workers building the bike trail would be exposed to site soils from the areas near the bike trail

Table 2.1
OCCURENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Detected Concentration	Maximum Detected Concentration	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	USEPA PRG for Residential Soil		COPC Flag (Y/N)	Rationale for Selection or Delection
Surface soil	92-52-4	1,1'-BIPHENYL	0.12	0.12	mg/kg	WB18-SS-20B	1/8	0.53 - 11	0.12		3.0E+02	nc	NO	BSL
near the proposed	120-82-1	1,2,4-TRICHLOROBENZENE	0.00084	0.00084	mg/kg	WB18-SS-02C	1/36	0.0057 - 6.3	0.00084		6.2E+00	nc	NO	BSL
bike trail	95-50-1	1,2-DICHLOROBENZENE	0.067	0.067	mg/kg	BT-SS-15	1/36	0.0057 - 6.3	0.067		6.0E+01	nc	NO	BSL
	106-46-7	1,4-DICHLOROBENZENE	0.12	0.12	mg/kg	BT-SS-15	1/36	0.0057 - 6.3	0.12		3.4E+00	c	NO	BSL
	6165-52-2	1-PHENYL-1-(2,4-DIMETHYLPHENYL) ETHANE	0.45	2.1	mg/kg	WB18-SS-02C	3/8	0.53 - 11	2.1		NA		NO	BSL
	3717-68-8	1-PHENYL-1-(4-METHYLPHENYL) ETHANE	0.49	0.72	mg/kg	WB18-SS-02C	2/8	0.53 - 11	0.72		NA		NO	BSL
	78-93-3	2-BUTANONE	0.0029	0.0072	mg/kg	BT-SS-15	4/35	0.011 - 0.024	0.0072		2.2E+03	nc	NO	BSL
	91-57-6	2-METHYLNAPHTHALENE (4)	0.061	0.47	mg/kg	WB18-SS-20B	6/35	0.43 - 11	0.47		5.6E+00	nc	NO	BSL
	72-54-8	4,4'-DDD	0.0037	0.0037	mg/kg	WB18-SS-03	1/35	0.0037 - 0.3	0.0037		2.4E+00	c	NO	BSL
	72-55-9	4,4'-DDE	0.0059	0.0059	mg/kg	WB18-SS-08	1/35	0.0037 - 0.3	0.0059		1.7E+00	c	NO	BSL
	50-29-3	4,4'-DDT	0.00055	0.069	mg/kg	WB18-SS-20	13/35	0.0041 - 0.3	0.069		1.7E+00	c	NO	BSL
	106-47-8	4-CHLOROANILINE	1.6	16	mg/kg	WB18-SS-02B	6/35	0.37 - 4	16		2.4E+01	nc	NO	BSL
	100-02-7	4-NITROPHENOL	0.09	0.93	mg/kg	WB18-SS-02	2/35	1.8 - 55	0.93		2.3E+01	c	NO	BSL
	83-32-9	ACENAPHTHENE	0.059	0.11	mg/kg	WB18-SS-20B	4/35	0.43 - 11	0.11		3.7E+02	nc	NO	BSL
	208-96-8	ACENAPHTHYLENE	0.068	1.4	mg/kg	WB18-SS-20	12/35	0.43 - 6.3	1.4		NA		NO	BSL
	67-64-1	ACETONE	0.043	0.043	mg/kg	WB18-SS-02C	1/35	0.011 - 0.061	0.043		1.4E+03	nc	NO	BSL
	5103-71-9	ALPHA-CHLORDANE (3)	0.0059	0.16	mg/kg	BT-SS-15	5/35	0.0019 - 0.042	0.16		1.6E+00	c	NO	BSL
	7429-90-5	ALUMINUM	1500.00	15700.00	mg/kg	WB18-SS-20C	35/35	1.8 - 105	15700		7.6E+03	nc	YES	ASL
	120-12-7	ANTHRACENE	0.05	4.7	mg/kg	WB18-SS-20	11/35	0.43 - 11	4.7		2.2E+03	nc	NO	BSL
	7440-36-0	ANTIMONY	0.20	16.4	mg/kg	WB18-SS-02D	24/35	7.1 - 62.7	16.4		3.1E+00	nc	YES	ASL
	11097-69-1	AROCLOR-1254	0.002	0.14	mg/kg	WB18-SS-24	5/35	0.019 - 3.6	0.14		2.2E-01	c	NO	BSL
	11096-82-5	AROCLOR-1260	0.0017	6.9	mg/kg	WB18-SS-02C	18/35	0.019 - 0.069	6.9		2.2E-01	c	YES	ASL
	11100-14-4	AROCLOR-1268	0.0021	0.0021	mg/kg	BT-SS-10	1/35	0.019 - 3.6	0.0021		2.2E-01	c	NO	BSL
	7440-38-2	ARSENIC	4.7	42.4	mg/kg	WB18-SS-02D	35/35	0.22 - 10.5	42.4		3.9E-01	c	YES	ASL
	7440-39-3	BARIUM	21.00	817.00	mg/kg	WB18-SS-02B	35/35	0.034 - 20.9	817		5.4E+02	nc	YES	ASL
	71-43-2	BENZENE	0.002	0.0026	mg/kg	WB18-SS-10	2/35	0.0027 - 0.012	0.0026		6.4E-01	c	NO	BSL
	56-55-3	BENZO(A)ANTHRACENE	0.058	19	mg/kg	WB18-SS-20	21/35	0.43 - 0.93	19		6.2E-01	c	YES	ASL
	50-32-8	BENZO(A)PYRENE	0.062	17	mg/kg	WB18-SS-20	21/35	0.43 - 0.93	17		6.2E-02	c	YES	ASL
	205-99-2	BENZO(B)FLUORANTHENE	0.058	18	mg/kg	WB18-SS-20	22/35	0.43 - 11	18		6.2E-01	c	YES	ASL
	191-24-2	BENZO(G,H,I)PERYLENE	0.071	4.4	mg/kg	WB18-SS-20	16/35	0.43 - 0.93	4.4		NA		NO	BSL
	207-08-9	BENZO(K)FLUORANTHENE	0.053	15	mg/kg	WB18-SS-20	21/35	0.43 - 11	15		6.2E+00	c	YES	ASL
	7440-41-7	BERYLLIUM	0.18	2.2	mg/kg	WB18-SS-02D	30/35	0.81 - 5.2	2.2		1.5E+01	nc	NO	BSL
	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	0.046	2.3	mg/kg	WB18-SS-02A	12/35	0.43 - 11	2.3		3.5E+01	c	NO	BSL
	85-68-7	BUTYLBENZYL PHTHALATE	0.057	0.92	mg/kg	WB18-SS-02	3/35	0.37 - 11	0.92		1.2E+03	nc	NO	BSL
	7440-43-9	CADMIUM	0.087	133	mg/kg	WB18-SS-02A	20/35	0.59 - 2.8	133		3.7E+00	nc	YES	ASL
	86-74-8	CARBAZOLE	0.087	0.28	mg/kg	WB18-SS-02C	5/35	0.43 - 11	0.28		2.4E+01	c	NO	BSL
	75-15-0	CARBON DISULFIDE	0.00086	0.0027	mg/kg	WB18-SS-10	2/35	0.0027 - 0.024	0.0027		3.6E+01	nc	NO	BSL
	67-66-3	CHLOROFORM	0.00087	0.00087	mg/kg	WB18-SS-20B	1/35	0.0027 - 0.012	0.00087		2.2E-01	c	NO	BSL
	16065-83-1	CHROMIUM III	1.20	1913.50	mg/kg	WB18-SS-02B	76/76	0.094 - 10.5	1913.5		1.0E+04	nc	NO	BSL
	18540-29-9	CHROMIUM VI	0.08	236.50	mg/kg	WB18-SS-02B	48/76	0.094 - 10.5	236.5		3.0E+01	c	YES	ASL
	218-01-9	CHRYSENE	0.056	18	mg/kg	WB18-SS-20	26/35	0.43 - 0.93	18		6.2E+01	c	NO	BSL
	7440-48-4	COBALT	0.82	18.8	mg/kg	WB18-SS-02C	30/35	8.1 - 52.3	18.8		9.0E+02	c	NO	BSL
	7440-50-8	COPPER	4.80	1650.00	mg/kg	WB18-SS-02B	35/35	0.18 - 95.9	1650		3.1E+02	nc	YES	ASL
	57-12-5	CYANIDE	0.42	19.7	mg/kg	WB18-SS-02D	25/28	0.57 - 1.31	19.7		1.2E+02	nc	NO	BSL
	319-86-8	DELTA-BHC	0.001	0.0018	mg/kg	WB18-SS-03	2/35	0.0019 - 0.15	0.0018		3.2E-01	c	NO	BSL
	53-70-3	DIBENZO(A,H)ANTHRACENE	0.13	2.3	mg/kg	WB18-SS-20	6/35	0.43 - 11	2.3		6.2E-02	c	YES	ASL
	132-64-9	DIBENZOFURAN	0.054	0.14	mg/kg	WB18-SS-20B	4/35	0.43 - 11	0.14		1.5E+01	nc	NO	BSL
	60-57-1	DIELDRIN	0.019	0.41	mg/kg	WB18-SS-04	8/35	0.0041 - 0.081	0.41		3.0E-02	c	YES	ASL
	84-74-2	DI-N-BUTYL PHTHALATE	0.14	0.14	mg/kg	BT-SS-15	1/35	0.37 - 11	0.14		3.5E+01	c	NO	BSL
	7421-93-4	ENDRIN ALDEHYDE (1)	0.0017	0.32	mg/kg	WB18-SS-02A	3/35	0.0037 - 0.3	0.32		1.8E+00	nc	NO	BSL
	53494-70-5	ENDRIN KETONE (1)	0.021	0.021	mg/kg	WB18-SS-20	1/35	0.0037 - 0.3	0.021		1.8E+00	nc	NO	BSL
	100-41-4	ETHYLBENZENE	0.0017	0.0017	mg/kg	WB18-SS-10	1/35	0.0027 - 0.012	0.0017		4.0E+01	nc	NO	BSL
	206-44-0	FLUORANTHENE	0.058	30	mg/kg	WB18-SS-20	32/35	0.43 - 0.47	30		2.3E+02	nc	NO	BSL

Table 2.1
OCCURENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Detected Concentration	Maximum Detected Concentration	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	USEPA PRG for Residential Soil		COPC Flag (Y/N)	Rationale for Selection or Delection
	86-73-7	FLUORENE	0.074	0.7	mg/kg	WB18-SS-20	5/35	0.43 - 11	0.7		2.7E+02	nc	NO	BSL
	5566-34-7	GAMMA-CHLORDANE (3)	0.0075	0.16	mg/kg	WB18-SS-04	7/35	0.0019 - 0.15	0.16		1.6E+00	c	NO	BSL
	118-74-1	HEXACHLOROBENZENE	0.51	2.3	mg/kg	WB18-SS-02D	3/37	0.37 - 11	2.3		3.0E-01	c	YES	ASL
	193-39-5	INDENO(1,2,3-CD)PYRENE	0.063	5.4	mg/kg	WB18-SS-20	16/35	0.43 - 0.93	5.4		6.2E-01	c	YES	ASL
	7439-89-6	IRON (2)	2000.00	26800.00	mg/kg	WB18-SS-02B	35/35	1.1 - 105	26800		5.5E+03	nc	YES	ASL
	7439-92-1	LEAD	9.20	1670.00	mg/kg	WB18-SS-02D	35/35	0.074 - 5.2	1670		4.00E+02	nc	YES	ASL
	7439-96-5	MANGANESE	120.00	684.00	mg/kg	WB18-SS-20B	35/35	0.033 - 10.5	684		1.8E+02	nc	YES	ASL
	7439-97-6	MERCURY	0.05	9.20	mg/kg	WB18-SS-02D	37/37	0.0026 - 0.39	9.2		6.1E-01	nc	YES	ASL
	75-09-2	METHYLENE CHLORIDE	0.011	0.011	mg/kg	WB18-SS-02C	1/35	0.0055 - 0.014	0.011		9.1E-01	c	NO	BSL
	91-20-3	NAPHTHALENE	0.04	0.84	mg/kg	WB18-SS-20B	9/35	0.43 - 11	0.84		5.6E+00	nc	NO	BSL
	7440-02-0	NICKEL	0.00086	199.00	mg/kg	WB18-SS-02B	35/35	0.18 - 41.8	199		1.6E+02	nc	YES	ASL
	85-01-8	PHENANTHRENE (5)	0.061	12	mg/kg	WB18-SS-20	22/35	0.43 - 0.93	12		NA		NO	BSL
	108-95-2	PHENOL	0.059	0.089	mg/kg	BT-SS-15	2/37	0.37 - 11	0.089		1.8E+03	nc	NO	BSL
	129-00-0	PYRENE	0.059	30	mg/kg	WB18-SS-20	31/35	0.43 - 0.59	30		2.3E+02	nc	NO	BSL
	7782-49-2	SELENIUM	0.28	4	mg/kg	WB18-SS-02D	22/35	0.64 - 10.5	4		3.9E+01	nc	NO	BSL
	7440-22-4	SILVER	3	80.20	mg/kg	WB18-SS-02D	9/35	1.1 - 2.8	80.2		3.9E+01	nc	YES	ASL
	7440-28-0	THALLIUM	0.31	3.1	mg/kg	WB18-SS-09	13/35	1.2 - 10.5	3.1		5.2E-01	nc	YES	ASL
	108-88-3	TOLUENE	0.00091	0.0043	mg/kg	WB18-SS-10	3/35	0.0027 - 0.012	0.0043		5.2E+01	nc	NO	BSL
	7440-62-2	VANADIUM	5.6	42.3	mg/kg	WB18-SS-20B	34/35	52.3 - 52.3	42.3		7.8E+00	nc	YES	ASL
	1330-20-7	XYLENES, TOTAL	0.019	0.019	mg/kg	WB18-SS-10	1/27	0.0027 - 0.0047	0.019		2.7E+01	nc	NO	BSL
	7440-66-6	ZINC	0.19	880.00	mg/kg	WB18-SS-02B	35/35	0.23 - 95.9	880		2.3E+03	nc	NO	BSL

Notes:
Maximum detected concentration or maximum detection limit used for screening.
Compounds were screened against the PRG table for residential soil (cancer benchmark of 1x10-6 and hazard quotient of 0.1).
(1) Endrin used for endrin aldehyde and endrin ketone
(2) Region 6 Human Health Screening Levels (May 2007) used for Iron.
(3) Chlordane technical used for alpha and gamma - chlordane
(4) Naphthalene used for 2-methylnaphthalene
(5) Pyrene used for phenanthrene

Definitions: NA = Not Available
ASL = Above screening level
BSL = Below screening level

References:
United States Environmental Protection Agency. October 2004. Preliminary Remediation Goals. Region 9.

Table 2.2
OCCURENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Detected Concentration	Maximum Detected Concentration	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	USEPA PRG for Industrial Soil		COPC Flag (Y/N)	Rationale for Selection or Delection
Surface soil on the proposed bike trail route	120-82-1	1,2,4-TRICHLOROBENZENE	0.00084	0.00084	mg/kg	WB18-SS-02C	1/16	0.011 - 6.3	0.00084		2.2E+01	nc	NO	BSL
	95-50-1	1,2-DICHLOROBENZENE	0.067	0.067	mg/kg	BT-SS-15	1/16	0.011 - 6.3	0.067		6.0E+01	nc	NO	BSL
	106-46-7	1,4-DICHLOROBENZENE	0.12	0.12	mg/kg	BT-SS-15	1/16	0.011 - 6.3	0.12		7.9E+00	c	NO	BSL
	6165-52-2	1-PHENYL-1-(2,4-DIMETHYLPHENYL) ETHANE	0.45	2.1	mg/kg	WB18-SS-02C	3/4	11 - 11	2.1		NA		NO	BSL
	3717-68-8	1-PHENYL-1-(4-METHYLPHENYL) ETHANE	0.49	0.72	mg/kg	WB18-SS-02C	2/4	4.1 - 11	0.72		NA		NO	BSL
	78-93-3	2-BUTANONE	0.0069	0.0072	mg/kg	BT-SS-15	2/16	0.014 - 0.024	0.0072		1.1E+04	nc	NO	BSL
	91-57-6	2-METHYLNAPHTHALENE (4)	0.3	0.3	mg/kg	BT-SS-15	1/16	0.47 - 11	0.3		1.9E+01	nc	NO	BSL
	50-29-3	4,4'-DDT	0.0016	0.0031	mg/kg	BT-SS-11	7/16	0.0056 - 0.3	0.0031		7.0E+00	c	NO	BSL
	106-47-8	4-CHLOROANILINE	1.6	16	mg/kg	WB18-SS-02B	6/16	0.47 - 0.61	16		2.5E+02	nc	NO	BSL
	100-02-7	4-NITROPHENOL	0.93	0.93	mg/kg	WB18-SS-02	1/16	2.4 - 55	0.93		2.3E+01	c	NO	BSL
	83-32-9	ACENAPHTHENE	0.061	0.061	mg/kg	BT-SS-15	1/16	0.47 - 11	0.061		2.9E+03	nc	NO	BSL
	208-96-8	ACENAPHTHYLENE	0.17	0.72	mg/kg	WB18-SS-02C	5/16	0.47 - 6.3	0.72		NA		NO	BSL
	67-64-1	ACETONE	0.043	0.043	mg/kg	WB18-SS-02C	1/16	0.014 - 0.048	0.043		5.4E+03	nc	NO	BSL
	5103-71-9	ALPHA-CHLORDANE (3)	0.0059	0.16	mg/kg	BT-SS-15	4/16	0.0024 - 0.042	0.16		6.5E+00	c	NO	BSL
	7429-90-5	ALUMINUM	5700	13000	mg/kg	WB18-SS-02B	16/16	2.3 - 105	13000		1.0E+04	nc	YES	ASL
	120-12-7	ANTHRACENE	0.2	0.87	mg/kg	WB18-SS-02C	4/16	0.47 - 11	0.87		1.0E+04	nc	NO	BSL
	7440-36-0	ANTIMONY	0.2	16.4	mg/kg	WB18-SS-02D	12/16	10 - 62.7	16.4		4.1E+01	nc	NO	BSL
	11097-69-1	AROCLOR-1254	0.0022	0.14	mg/kg	WB18-SS-24	2/16	0.024 - 3.6	0.14		7.4E-01	c	NO	BSL
	11096-82-5	AROCLOR-1260	0.0064	6.9	mg/kg	WB18-SS-02C	9/16	0.024 - 0.031	6.9		7.4E-01	c	YES	ASL
	11100-14-4	AROCLOR-1268	0.0021	0.0021	mg/kg	BT-SS-10	1/16	0.024 - 3.6	0.0021		7.4E-01	c	NO	BSL
	7440-38-2	ARSENIC	7.7	42.4	mg/kg	WB18-SS-02D	16/16	0.28 - 10.5	42.4		1.6E+00	c	YES	ASL
	7440-39-3	BARIUM	21	817	mg/kg	WB18-SS-02B	16/16	0.044 - 20.9	817		6.7E+03	nc	NO	BSL
	56-55-3	BENZO(A)ANTHRACENE	0.058	1.8	mg/kg	WB18-SS-02	11/16	0.47 - 0.59	1.8		2.1E+00	c	NO	BSL
	50-32-8	BENZO(A)PYRENE	0.062	2	mg/kg	WB18-SS-02C	11/16	0.47 - 0.59	2		2.1E-01	c	YES	ASL
	205-99-2	BENZO(B)FLUORANTHENE	0.058	2.2	mg/kg	WB18-SS-02	11/16	0.47 - 11	2.2		2.1E+00	c	YES	ASL
	191-24-2	BENZO(G,H,I)PERYLENE	0.08	1.9	mg/kg	WB18-SS-02B	8/16	0.47 - 0.61	1.9		NA		NO	BSL
	207-08-9	BENZO(K)FLUORANTHENE	0.067	1.9	mg/kg	WB18-SS-02C	10/16	0.47 - 11	1.9		2.1E+01	c	NO	BSL
	7440-41-7	BERYLLIUM	0.41	2.2	mg/kg	WB18-SS-02D	13/16	1.1 - 5.2	2.2		1.9E+03	c	NO	BSL
	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	0.063	2.3	mg/kg	WB18-SS-02A	8/16	0.47 - 11	2.3		1.2E+02	c	NO	BSL
	85-68-7	BUTYLBENZYL PHTHALATE	0.37	0.92	mg/kg	WB18-SS-02	2/16	0.47 - 11	0.92		1.0E+04	nc	NO	BSL
	7440-43-9	CADMIUM	0.13	133	mg/kg	WB18-SS-02A	11/16	1.4 - 1.8	133		4.5E+01	nc	YES	ASL
	86-74-8	CARBAZOLE	0.12	0.28	mg/kg	WB18-SS-02C	2/16	0.47 - 11	0.28		8.6E+01	c	NO	BSL
	16065-83-1	CHROMIUM III	6.1	1913.50	mg/kg	WB18-SS-02B	33/33	0.12 - 10.5	1913.5		1.0E+04	nc	NO	BSL
	18540-29-9	CHROMIUM VI	0.12	236.50	mg/kg	WB18-SS-02B	21/33	0.12 - 10.5	236.5		6.4E+01	c	YES	ASL
	218-01-9	CHRYSENE	0.059	2	mg/kg	WB18-SS-02C	13/16	0.47 - 0.59	2		2.1E+02	c	NO	BSL
	7440-48-4	COBALT	1.4	18.8	mg/kg	WB18-SS-02C	14/16	12 - 52.3	18.8		1.9E+03	c	NO	BSL
	7440-50-8	COPPER	8.8	1650	mg/kg	WB18-SS-02B	16/16	0.23 - 95.9	1650		4.1E+03	nc	NO	BSL
	57-12-5	CYANIDE	5.4	19.7	mg/kg	WB18-SS-02D	9/9	0.55 - 1	19.7		1.2E+03	nc	NO	BSL
	53-70-3	DIBENZO(A,H)ANTHRACENE	0.29	0.29	mg/kg	BT-SS-15	1/16	0.47 - 11	0.29		2.1E-01	c	YES	ASL
	132-64-9	DIBENZOFURAN	0.063	0.063	mg/kg	BT-SS-15	1/16	0.47 - 11	0.063		1.6E+02	nc	NO	BSL
	60-57-1	DIELDRIN	0.1	0.41	mg/kg	WB18-SS-04	6/16	0.0047 - 0.081	0.41		1.1E-01	c	YES	ASL
	84-74-2	DI-N-BUTYL PHTHALATE	0.14	0.14	mg/kg	BT-SS-15	1/16	0.47 - 11	0.14		1.2E+02	c	NO	BSL
	7421-93-4	ENDRIN ALDEHYDE (1)	0.32	0.32	mg/kg	WB18-SS-02A	1/16	0.0047 - 0.3	0.32		1.8E+01	nc	NO	BSL
	206-44-0	FLUORANTHENE	0.063	3.7	mg/kg	WB18-SS-02C	15/16	0.47 - 0.47	3.7		2.2E+03	nc	NO	BSL
	5566-34-7	GAMMA-CHLORDANE (3)	0.1	0.16	mg/kg	8-SS-02C, WB18-S	6/16	0.0024 - 0.15	0.16		6.5E+00	c	NO	BSL
	118-74-1	HEXACHLOROBENZENE	0.51	2.3	mg/kg	WB18-SS-02D	3/18	0.47 - 11	2.3		1.1E+00	c	YES	ASL
	193-39-5	INDENO(1,2,3-CD)PYRENE	0.074	1.4	mg/kg	WB18-SS-02C	8/16	0.47 - 0.61	1.4		2.1E+00	c	NO	BSL
	7439-89-6	IRON (2)	5900	26800	mg/kg	WB18-SS-02B	16/16	1.5 - 105	26800		1.0E+04	nc	YES	ASL
	7439-92-1	LEAD	18	1670	mg/kg	WB18-SS-02D	16/16	0.095 - 5.2	1670		8.00E+02	nc	YES	ASL
	7439-96-5	MANGANESE	200	580	mg/kg	BT-SS-10	16/16	0.042 - 10.5	580		1.9E+03	nc	NO	BSL
	7439-97-6	MERCURY	0.058	9.2	mg/kg	WB18-SS-02D	18/18	0.0033 - 0.39	9.2		6.2E+00	nc	YES	ASL
	75-09-2	METHYLENE CHLORIDE	0.011	0.011	mg/kg	WB18-SS-02C	1/16	0.007 - 0.012	0.011		2.1E+01	c	NO	BSL
	91-20-3	NAPHTHALENE	0.19	0.19	mg/kg	BT-SS-15	1/16	0.47 - 11	0.19		1.9E+01	nc	NO	BSL
	7440-02-0	NICKEL	12	199	mg/kg	WB18-SS-02B	16/16	0.23 - 41.8	199		2.0E+03	nc	NO	BSL
	85-01-8	PHENANTHRENE (5)	0.061	2.9	mg/kg	WB18-SS-02	11/16	0.47 - 0.59	2.9		NA		NO	BSL
	108-95-2	PHENOL	0.089	0.089	mg/kg	BT-SS-15	1/18	0.47 - 11	0.089		1.0E+04	nc	NO	BSL
	129-00-0	PYRENE	0.062	3.5	mg/kg	WB18-SS-02	15/16	0.47 - 0.47	3.5		2.9E+03	nc	NO	BSL

Table 2.2
OCCURENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	CAS Number	Chemical	Minimum Detected Concentration	Maximum Detected Concentration	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	USEPA PRG for Industrial Soil		COPC Flag (Y/N)	Rationale for Selection or Delection
	7782-49-2	SELENIUM	0.41	4	mg/kg	WB18-SS-02D	12/16	0.83 - 10.5	4		5.1E+02	nc	NO	BSL
	7440-22-4	SILVER	3	80.2	mg/kg	WB18-SS-02D	8/16	1.4 - 1.8	80.2		5.1E+02	nc	NO	BSL
	7440-28-0	THALLIUM	1.3	2.2	mg/kg	BT-SS-10	6/16	1.7 - 10.5	2.2		6.7E+00	nc	NO	BSL
	108-88-3	TOLUENE	0.00091	0.00091	mg/kg	BT-SS-15	1/16	0.0035 - 0.012	0.00091		5.2E+01	nc	NO	BSL
	7440-62-2	VANADIUM	13	41.1	mg/kg	WB18-SS-02C	15/16	52.3 - 52.3	41.1		1.0E+02	nc	NO	BSL
	7440-66-6	ZINC	0.19	8880	mg/kg	WB18-SS-02B	16/16	0.3 - 95.9	8880		1.0E+04	nc	NO	BSL

Notes:
Maximum detected concentration or maximum detection limit used for screening.
Compounds were screened against the PRG table for industrial soil (cancer benchmark of 1x10-6 and hazard quotient of 0.1).
(1) Endrin used for endrin aldehyde and endrin ketone
(2) Region 6 Human Health Screening Levels (May 2007) used for Iron.
(3) Chlordane technical used for alpha and gamma - chlordane
(4) Naphthalene used for 2-methylnaphthalene
(5) Pyrene used for phenanthrene

Definitions: NA = Not Available
ASL = Above screening level
BSL = Below screening level

References:
United States Environmental Protection Agency. October 2004. Preliminary Remediation Goal Table. Region 9.

Table 3.1
EXPOSURE POINT CONCENTRATIONS: Reasonable Maximum Exposure/Central Tendency
WASTEBEDS 1 - 8: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Average Detected Concentration	95% UCL (Distribution)	Maximum Detected Concentration	Exposure Point Concentation			
						Value	Units	Statistic	Rationale
Surface soil near the proposed bike trail	ALUMINUM	mg/kg	7784.00	8702	15700	8702	mg/kg	UCL-N	Student's t Test
	ANTIMONY	mg/kg	3.35	13.25	31.35	13.25	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	AROCLOR 1260	mg/kg	1.103	5.102	6.9	5.102	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	ARSENIC	mg/kg	11.39	17.4	42.4	17.4	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	BARIUM	mg/kg	191.70	609.3	817	609.3	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	BENZO(A)ANTHRACENE	mg/kg	1.13	6.497	19	6.497	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	BENZO(A)PYRENE	mg/kg	1.08	5.879	17	5.879	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	BENZO(B)FLUORANTHENE	mg/kg	1.24	6.466	18	6.466	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	BENZO(K)FLUORANTHENE	mg/kg	1.08	1.558	15	1.558	mg/kg	UCL-T	95% H-UCL
	CADMIUM	mg/kg	21.73	93.78	133	93.78	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	CHROMIUM VI	mg/kg	18.37	76.88	236.5	76.88	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	COPPER	mg/kg	252.00	1065	1650	1065	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	DIBENZO(A,H)ANTHRACENE	mg/kg	0.86	1.795	5.5	1.795	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	DIELDRIN	mg/kg	0.05	0.244	0.41	0.244	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	HEXACHLOROBENZENE	mg/kg	0.81	1.702	5.5	1.702	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	INDENO(1,2,3-CD)PYRENE	mg/kg	0.63	1.317	5.4	1.317	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	IRON	mg/kg	12197.00	18036	26800	18036	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	LEAD	mg/kg	268.20	1082	1670	268.2	mg/kg	Ave	Average
	MANGANESE	mg/kg	368.60	407.8	684	407.8	mg/kg	UCL-N	Student's t Test
	MERCURY	mg/kg	1.638	6.719	9.2	6.719	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	NICKEL	mg/kg	48.91	89.73	199	89.73	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	SILVER	mg/kg	12.56	52.96	80.2	52.96	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	THALLIUM	mg/kg	1.27	1.509	5.25	1.509	mg/kg	UCL-T	95% H-UCL
	VANADIUM	mg/kg	20.41	24.01	42.3	24.01	mg/kg	UCL-T	95% H-UCL

Footnotes:
Chebyshev UCL, H-Statistic, or Student's-t UCL based on ProUCL (V. 4.0) recommendation.
Type of distribution: N = Normal; T = Log-transformed; NP = Nonparametric.

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Table 3.2
EXPOSURE POINT CONCENTRATIONS: Reasonable Maximum Exposure/Central Tendency
WASTEBEDS 1 - 8: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Average Detected Concentration	95% UCL (Distribution)	Maximum Detected Concentration	Exposure Point Concentation			
						Value	Units	Statistic	Rationale
Surface soil on the proposed bike trail	ALUMINUM	mg/kg	7953.00	8964	13000	8964	mg/kg	UCL-NP	95% Gamma
	AROCLOR 1260	mg/kg	2.038	3.066	6.9	3.066	mg/kg	UCL-NP	95% Hall's Bootstrap
	ARSENIC	mg/kg	15.76	26.96	42.4	26.96	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	BENZO(A)PYRENE	mg/kg	0.67	1.099	2	1.099	mg/kg	UCL-NP	95% Gamma
	BENZO(B)FLUORANTHENE	mg/kg	1.04	1.955	5.5	1.955	mg/kg	UCL-NP	95% Gamma
	CADMIUM	mg/kg	45.97	182	133	133	mg/kg	Max	UCL exceeds Max
	CHROMIUM VI	mg/kg	32.20	136.7	236.5	136.7	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	DIBENZO(A,H)ANTHRACENE	mg/kg	1.39	5.577	5.5	5.5	mg/kg	Max	UCL exceeds Max
	DIELDRIN	mg/kg	0.11	0.486	0.41	0.41	mg/kg	Max	UCL exceeds Max
	HEXACHLOROBENZENE	mg/kg	1.19	4.871	5.5	4.871	mg/kg	UCL-NP	99% Chebyshev (mean, std)
	IRON	mg/kg	13681.00	22523	26800	22523	mg/kg	UCL-NP	95% Chebyshev (mean, std)
	LEAD	mg/kg	541.90	2075	1670	541.9	mg/kg	Ave	Average
	MERCURY	mg/kg	3.178	12.41	9.2	9.2	mg/kg	Max	UCL exceeds Max

Footnotes:
Chebyshev UCL, Gamma UCL, Hall's Bootstrap UCL, or Max based on ProUCL (V. 4.0) recommendation.
Type of distribution: NP = Nonparametric.
Max = Maximum detected concentratin.

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TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Inhalation	Child	0-6 yrs	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	Chronic Daily Intake (CDI in mg/kg-day) =
				InR	Inhalation Rate	m^3/hour	1.2	USEPA, 1997 (Table 5-23)	CA x InR x ET x EF x ED x 1/BW x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	4	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	6	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	15	USEPA, 1997 (Table 7-3)	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	2190	USEPA, 1989	

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Inhalation rate assumes moderate activity

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TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Inhalation	Older child	6-12 yrs	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	Chronic Daily Intake (CDI in mg/kg-day) =
				InR	Inhalation Rate	m^3/hour	1.2	USEPA, 1997 (Table 5-23)	CA x InR x ET x EF x ED x 1/BW x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	4	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	6	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	33	USEPA, 1997 (Table 7-3)	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	2190	USEPA, 1989	

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Inhalation rate assumes moderate activity

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TABLE 4.3a.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Inhalation	Adolescent on trail	12-16 yrs	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	Chronic Daily Intake (CDI in mg/kg-day) =
				InR	Inhalation Rate	m^3/hour	1.2	USEPA, 1997 (Table 5-23)	CA x InR x ET x EF x ED x 1/BW x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	4	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	54	USEPA, 1997 (Table 7-3)	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	1825	USEPA, 1989	

United States Environmental Protection Agency (USEPA). 1989. *Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A)*. Interim Final. EPA/540/1089/002.

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TABLE 4.3b.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Ingestion	Adolescent	12-16 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Chronic Daily Intake (CDI, mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	CS x CF x IR x FI x EF x ED x 1/BW x 1/AT
			bike trail	IR	Ingestion Rate of Soil	mg/day	100	USEPA, 1997	
				FI	Fraction Ingested from Soil	unitless	1	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	4	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	54	USEPA, 1997 (Table 7-3)	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	1825	USEPA, 1989	
Dermal	Adolescent	12-16 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Dermally Absorbed Dose (DAD, mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	DAD = $\frac{DA_{event} * EF * ED * SA}{BW * AT}$
			bike trail	ABS	Dermal Absorption Factor	unitless	Chemical Specific	USEPA, 2004	
				SA	Skin Surface Area for Dermal Absorption	cm^2/day	5098	USEPA, 2004	DA_{event} = CS * CF * AF *ABS
				AF	Soil to Skin Adherence Factor	mg/cm^2	0.7	USEPA, 2004	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	4	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	54	USEPA, 1997	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	1825	USEPA, 1989	
Inhalation	Adolescent	12-16 yrs	Air off bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	Chronic Daily Intake (CDI in mg/kg-day) =
	off trail			InR	Inhalation Rate	m^3/hour	1.2	USEPA, 1997 (Table 5-23)	CA x InR x ET x EF x ED x 1/BW x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	4	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	54	USEPA, 1997 (Table 7-3)	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	1825	USEPA, 1989	

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TABLE 4.4a.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Inhalation	Adult	16-30 yrs	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	Chronic Daily Intake (CDI in mg/kg-day) =
	on trail			InR	Inhalation Rate	m^3/hour	1.6	USEPA, 1997 (Table 5-23)	CA x InR x ET x EF x ED x 1/BW x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	15	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	70	USEPA, 1997	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	5475	USEPA, 1989	

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TABLE 4.4b.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Ingestion	Adult	16-30 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Chronic Daily Intake (CDI, mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	CS x CF x IR x FI x EF x ED x 1/BW x 1/AT
			bike trail	IR	Ingestion Rate of Soil	mg/day	100	USEPA, 1997	
				FI	Fraction Ingested from Soil	unitless	1	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	15	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	70	USEPA, 1997	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	5475	USEPA, 1989	
Dermal	Adult	16-30 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Dermally Absorbed Dose (DAD, mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	DAD = $\frac{DA_{event} * EF * ED * SA}{BW * AT}$
			bike trail	ABS	Dermal Absorption Factor	unitless	Chemical Specific	USEPA, 2004	
				SA	Skin Surface Area for Dermal Absorption	cm^2/day	5700	USEPA, 2004	DA_{event} = CS * CF * AF *ABS
				AF	Soil to Skin Adherence Factor	mg/cm^2	0.7	USEPA, 2004	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	15	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	70	USEPA, 1997	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	5475	USEPA, 1989	
Inhalation	Adult	16-30 yrs	Air off bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	Chronic Daily Intake (CDI in mg/kg-day) =
	off trail			InR	Inhalation Rate	m^3/hour	1.6	USEPA, 1997	CA x InR x ET x EF x ED x 1/BW x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				ED	Exposure Duration	years	15	OSWER Directive, USEPA, 1991	
				BW	Body Weight	kg	70	USEPA, 1997	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	5475	USEPA, 1989	

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TABLE 4.1.RME Supplement A
VALUES USED FOR DAILY INTAKE CALCULATIONS (Mutagenic Mode of Action)
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Inhalation	Child	0-2yrs	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	CDI (mg/kg-day) =
				IN-Adj (0-2)	Age Adjusted Inhalation Rate (0-<2 yrs)	m^3-yr/day-kg	1.1	calculated	CA x IN-Adj (0-2) x ET x EF x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	4	Best Professional Judgement	[for child aged 0-<2 years]
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
Inhalation	Child	2-6yrs	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	CDI (mg/kg-day) =
				IN-Adj (2-6)	Age Adjusted Inhalation Rate (2-6 yrs)	m^3-yr/day-kg	2.0	calculated	CA x IN-Adj (2-6) x ET x EF x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	4	Best Professional Judgement	[for child aged 2-6 years]
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	

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TABLE 4.2.RME Supplement A

VALUES USED FOR DAILY INTAKE CALCULATIONS (Mutagenic Mode of Action)

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Inhalation	Adolscent	6-12	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	CDI (mg/kg-day) =
				IN-Adj (6-12)	Age Adjusted Inhalation Rate (6-12 yrs)	m^3-yr/day-kg	2.3	calculated	CA x IN-Adj (6-12) x ET x EF x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	4	Best Professional Judgement	[for child aged 6-12 years]
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	

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TABLE 4.3a.RME Supplement A

VALUES USED FOR DAILY INTAKE CALCULATIONS (Mutagenic Mode of Action)

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name
Inhalation	Adolscent on trail	12-16	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	CDI (mg/kg-day) =
				IN-Adj 12-16)	Age Adjusted Inhalation Rate (12-16 yrs)	m^3-yr/day-kg	1.0	calculated	CA x IN-Adj (12-16) x ET x EF x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	[for child aged 12 -16 years]
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	

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TABLE 4.3b.RME Supplement A
VALUES USED FOR DAILY INTAKE CALCULATIONS (Mutagenic Mode of Action)
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name (1)
Ingestion	Adolescent	12-16 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	CDI (mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	CS x IR-S-Adj (12-16) x EF x CF1 x 1/AT
			bike trail	IR-S-Adj (12-16)	Age Adjusted Ingestion Rate of Soil (12-16 yrs)	mg-yr/day-kg	7.7	calculated	[for child/adolescent aged 12-16 years]
				FI	Fraction Ingested from Soil	unitless	1	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
Dermal	Adolescent	12-16 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Dermally Absorbed Dose (DAD, mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	CS x SSAF-Adj (12-16) x ABS x CF1 x EF x 1/AT
			bike trail	ABS	Dermal Absorption Factor	unitless	Chemical Specific	USEPA, 2004	[for child/adolescent aged 12-16 years]
				SSAF-Adj (12-16)	Age Adjusted Soil to Skin Adherence Factor (12-16 yrs)	mg-yr/day-kg	39.5	calculated	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
Inhalation	Adolescent	12-16 yrs	Air off bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	CDI (mg/kg-day) =
	off trail			IN-Adj (12-16)	Age Adjusted Inhalation Rate (12-16 yrs)	m^3-yr/day-kg	1.1	calculated	CA x IN-Adj (12-16) x ET x EF x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	[for child aged 12 -16 years]
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				PEF	Particulate Emission Factor	m^3/kg	1.22E+05	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	

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TABLE 4.4a.RME Supplement A

VALUES USED FOR DAILY INTAKE CALCULATIONS (Mutagenic Mode of Action)

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name (1)
Inhalation	Adult	16-30	Air on bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	CDI (mg/kg-day) =
	on trail			IN-Adj 16-30)	Age Adjusted Inhalation Rate (16-30 yrs)	m^3-yr/day-kg	2.8	calculated	CA x IN-Adj (16-30) x ET x EF x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	[for child aged 16-30 years]
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	

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TABLE 4.4b.RME Supplement A
VALUES USED FOR DAILY INTAKE CALCULATIONS (Mutagenic Mode of Action)
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name (1)
Ingestion	Adult	16-30 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	CDI (mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	CS x IR-S-Adj (16-30) x EF x CF1 x 1/AT
			bike trail	IR-S-Adj (16-30)	Age Adjusted Ingestion Rate of Soil (16-30 yrs)	mg-yr/day-kg	20.7	calculated	[for child/adolescent aged 16-30 years]
				FI	Fraction Ingested from Soil	unitless	1	Best Professional Judgement	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
Dermal	Adult	16-30 yrs	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Dermally Absorbed Dose (DAD, mg/kg-day) =
	off trail		near the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	CS x SSAF-Adj (16-13) x ABS x CF1 x EF x 1/AT
			bike trail	ABS	Dermal Absorption Factor	unitless	Chemical Specific	USEPA, 2004	[for child/adolescent aged 16-30 years]
				SSAF-Adj (16-30)	Age Adjusted Soil to Skin Adherence Factor (16-30 yrs)	mg-yr/day-kg	82.2	calculated	
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
Inhalation	Adult	16-30 yrs	Air off bike trail: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	CDI (mg/kg-day) =
	off trail			IN-Adj (16-30)	Age Adjusted Inhalation Rate (16-30 yrs)	m^3-yr/day-kg	2.8	calculated	CA x IN-Adj (16-30) x ET x EF x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	2	Best Professional Judgement	[for child aged 16-30 years]
				EF	Exposure Frequency	days/year	94	Best Professional Judgement	
				PEF	Particulate Emission Factor	m^3/kg	1.22E+05	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	

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TABLE 4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Surface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Units	RME Value	Rationale/Reference	Intake Equation/Model Name (1)
Ingestion	Construction	Adult	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Chronic Daily Intake (CDI, mg/kg-day) =
	Worker		on the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	CS x CF x IR x FI x EF x ED x 1/BW x 1/AT
			bike trail route	IR	Ingestion Rate of Soil	mg/day	330	USEPA, 2004, NYSDEC, 2002	
				FI	Fraction Ingested from Soil	unitless	1	Best Professional Judgement	
				EF	Exposure Frequency	days/year	66	Best Professional Judgement	
				ED	Exposure Duration	years	1	Best Professional Judgement	
				BW	Body Weight	kg	70	USEPA, 2000	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	365	USEPA, 1989	
Dermal	Construction	Adult	Surface soil	CS	Chemical Concentration in Surface Soil	mg/kg	RAGS Table 3 Series	RAGS Table 3 Series	Dermally Absorbed Dose (DAD, mg/kg-day) =
	Worker		on the proposed	CF	Unit Conversion Factor for Soil	kg/mg	0.000001	Unit Conversion	DAD = $\frac{DA_{event} * EF * ED * SA}{BW * AT}$
			bike trail route	ABS	Dermal Absorption Factor	unitless	Chemical Specific	USEPA, 2004	
				SA	Skin Surface Area for Dermal Absorption	cm^2/day	3300	USEPA, 2004	DA_{event} = CS * CF * AF *ABS
				AF	Soil to Skin Adherence Factor	mg/cm^2	0.3	USEPA, 2004	
				EF	Exposure Frequency	days/year	66	Best Professional Judgement	
				ED	Exposure Duration	years	1	Best Professional Judgement	
				BW	Body Weight	kg	70	USEPA, 2000	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	365	USEPA, 1989	
Inhalation	Construction	Adult	Air: fugitive dust from surface soil near proposed bike trail	CA	Chemical Concentration in Soil	mg/kg	See Table 3.1	Site-specific	Chronic Daily Intake (CDI in mg/kg-day) =
	Worker			InR	Inhalation Rate	m^3/hour	1.5	USEPA, 1997	CA x InR x ET x EF x ED x 1/BW x 1/AT x 1/PEF
				ET	Exposure Time	hours/day	8	Best Professional Judgement	
				EF	Exposure Frequency	days/year	66	Best Professional Judgement	
				ED	Exposure Duration	years	1	Best Professional Judgement	
				BW	Body Weight	kg	70	USEPA. 2000	
				PEF	Particulate Emission Factor	m^3/kg	8.50E+08	USEPA, 2002	
				AT-C	Averaging Time - Cancer	days	25550	USEPA, 1989	
				AT-NC	Averaging Time - Non-Cancer	days	365	USEPA, 1989	

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TABLE 4 - Supplement B
Age-Adjusted Exposure Factors (RME)
WASTEBEDS 1-8 SITE: Bike Trail
GEDDES, NEW YORK

			Intake Rate		Dermal			Age-Adjusted Exposure Factors				
AGE (year)	ED (years)	BW [1] (kg)	SOIL IR-S [2] (mg/day)	AIR IN [3] (m3/day)	SOIL SSAF [4] (mg/cm2-event)	EXPOSED SA [5] (cm2)	TOTAL SA [6] (cm2)	AGE GROUP	IR-S-Adj (mg-yr/day-kg)	IN-Adj (m3-yr/day-kg)	SSAF-Adj (mg-yr/day-kg)	TOTAL SA (cm2-yr/kg)
0	1	9.1	200	4.5	0.2	2,625	5,910	0-<2 yrs	39.7	1.1	103	1,172
1	1	11.3	200	6.8	0.2	2,571	5,910					
2	1	13.3	200	6.8	0.2	2,434	5,910	2-<6 yrs	49.8	2.0	144	
3	1	15.3	200	8.3	0.2	2,893	6,565					
4	1	17.4	200	8.3	0.2	3,175	7,185					
5	1	19.7	200	8.3	0.2	3,255	7,860					
6	1	22.6	100	10	0.2	2,949	8,545	6-<12 yrs		2.3		
7	1	24.9	100	10	0.2	3,182	9,265					
8	1	28.1	100	10	0.2	3,434	10,000	6-<16 yrs	28.1	3.4	180	
9	1	31.5	100	13.5	0.2	3,657	10,650					
10	1	36.3	100	13.5	0.2	3,819	11,750	12-<16 years	7.7	1.1	39.5	
11	1	41.1	100	13.5	0.2	4,111	12,650					
12	1	45.3	100	13.5	0.2	4,453	13,700					
13	1	50.4	100	13.5	0.07	4,916	14,750					
14	1	56	100	13.5	0.07	5,205	15,800					
15	1	58.1	100	14.5	0.07	5,386	16,350					
								2-<16 yrs	77.8	5.3	323.8	
16	1	62.6	100	14.5	0.07	5,534	16,800	16-<30 yrs	20.7	2.8	82.2	
17	1	63.2	100	14.5	0.07	5,641	17,150					
18	1	65.1	100	14.5	0.07	5,700	18,000					
19	1	66	100	13.25	0.07	5,700	18,000					
20	1	67.2	100	13.25	0.07	5,700	18,000					
21	1	67.2	100	13.25	0.07	5,700	18,000					
22	1	67.2	100	13.25	0.07	5,700	18,000					
23	1	67.2	100	13.25	0.07	5,700	18,000					
24	1	67.2	100	13.25	0.07	5,700	18,000					
25	1	71.5	100	13.25	0.07	5,700	18,000					
26	1	71.5	100	13.25	0.07	5,700	18,000					
27	1	71.5	100	13.25	0.07	5,700	18,000					
28	1	71.5	100	13.25	0.07	5,700	18,000					
29	1	71.5	100	13.25	0.07	5,700	18,000					

Equations and Definitions:

IR-S-Adj (mg-yr/day-kg) ∑ (ED * IR-S) / BW
SSAF-Adj (mg-yr/day-kg ∑ (ED * EV * SSAF * SA) / BW
IN-Adj (m3-yr/hour-kg) ∑ (ED * IN) / BW

ED - Exposure duration
BW - Body weight
IR-S - Ingestion rate for soil

SSAF - Soil-to-skin adherence factor
SA - Skin surface area
EV - Event frequency

References:

[1] EPA 1997. Exposure Factors Handbook. Tables 7-2 (adults) and 7-3 (children), mean. Values are mean of male and female. Source: National Center of Health Statistics (NCHS

[2] EPA 1991. Standard Default Exposure Factors. Default for resident child and adult.

[3] EPA 1997. Exposure Factors Handbook. Table 5-23 - Summary of Recommended Values for Inhalation. Mean of male and female.

[4] EPA 2004. Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment).
Recommended default adherence factor for a child resident (0.2) and adult resident (0.07). For older children, the geometric mean weighted adherence factor for children playing in wet soil was used for children 6 - 12, as an estimate of a high-end soil contact activity (see Exhibit 3-3).

[5] EPA 2004. Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)
Calculated from Exhibit C-1 - Body Part-Specific Surface Area Calculations (Children). Data from Exposure Factors Handbook, Tables 6-6, 6-7 and 6-8.
Surface area of head, forearms, hands, lower legs and feet (for child <6 years); feet excluded from surface area calculation for >6 years.
Surface area for >18 is recommended default for adult resident (EPA 2004).

[6] EPA 2004. Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)
Exhibit C-1 - Body Part-Specific Surface Area Calculations (Children). Data from Exposure Factors Handbook, Tables 6-6 and 6-7.
Total Body Surface Area (50th percentile).

TABLE 5.1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL

WASTEBEDS 1 - 8: Bike Trail

GEDDES, NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absortion Efficiency for Demal (1)	Absorbed RfD for Demal (2)		Primary Target Organ(s)	Combined Uncert/Mod Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Aluminum	Chronic	1.0E+00	mg/kg-day	> 50%	1.0E+00	mg/kg-day	CNS	100	PPRTV	10/2004
Antimony	Chronic	4.0E-04	mg/kg-day	15%	6.0E-05	mg/kg-day	blood	1000/1	IRIS	11/11/2007
Aroclor 1260	Chronic	2.0E-05	mg/kg-day	> 50%	2.0E-05	mg/kg-day	skin/nail	300	IRIS	11/11/2007
Arsenic	Chronic	3.0E-04	mg/kg-day	95%	3.0E-04	mg/kg-day	skin	3/1	IRIS	11/11/2007
Barium	Chonic	2.0E-01	mg/kg-day	> 50%	2.0E-01	mg/kg-day	kidney	300	IRIS	11/11/2007
Benzo(a)anthracene	Chronic	NA	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(a)pyrene	Chronic	NA	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(b)fluoranthene	Chronic	NA	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(k)fluoranthene	Chronic	NA	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Cadmium (food)	Chronic	1.0E-03	mg/kg-day	3%	2.5E-05	mg/kg-day	kidney	10/1	IRIS	11/11/2007
Chromium VI	Chronic	3.0E-03	mg/kg-day	> 50%	3.0E-03	mg/kg-day	NOAEL	300/3	IRIS	11/11/2007
Copper	Chronic	1.3E+00	mg/L	> 50%	1.3E+00	mg/L	GI	NA	HEAST	1997
Dibenzo(a,h)anthracene	Chronic	NA	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Dieldrin	Chronic	5.0E-05	mg/kg-day	> 50%	5.0E-05	mg/kg-day	liver	100	IRIS	11/11/2007
Hexachlorobenzene	Chronic	8.0E-04	mg/kg-day	> 50%	8.0E-04	mg/kg-day	liver	100	IRIS	11/11/2007
Indeno(1,2,3-cd)pyrene	Chronic	NA	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Iron	Chronic	7.0E-01	mg/kg-day	> 50%	7.0E-01	mg/kg-day	GI	1.5	PPRTV	11/11/2007
Lead	Chronic	NA	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Manganese	Chronic	1.4E-01	mg/kg-day	4%	5.6E-03	mg/kg-day	CNS	1/1	IRIS	11/11/2007
Mercury	Chronic	1.0E-04	mg/kg-day	> 50%	1.0E-04	mg/kg-day	develop	10	IRIS	11/11/2007
Nickel	Chronic	2.0E-02	mg/kg-day	4.00%	8.0E-04	mg/kg-day	whole body	300	IRIS	11/11/2007
Silver	Chronic	5.0E-03	mg/kg-day	> 50%	5.0E-03	mg/kg-day	skin	3	IRIS	11/11/2007
Thallium	Chronic	6.6E-05	mg/kg-day	100%	6.6E-05	mg/kg-day	blood	3000/1	IRIS	11/11/2007
Vanadium	Chronic	1.0E-03	mg/kg-day	2.6%	2.6E-05	mg/kg-day	NA	NA	NCEA	10/1/2006

Note:

(1) Source: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. Section 4.2 and Exhibit 4-1. USEPA recommends that the oral RfD should not be adjusted to estimate the absorbed dose for compounds when the absorption efficiency is greater than 50%. Constituents that do not have oral absorption efficiencies reported on this table were assumed to have an oral absorption efficiency of 100%.

(2) Adjusted based on RAGS Part E.

Definitions:

NA = Not Available

IRIS = Integrated Risk Information System

HEAST = Health Effects Assessment Summary Tables

NCEA = National Center for Environmental Assessment

PPRTV = Preliminary Peer-Reviewed Toxicity Value

GI = Gastrointestinal

CNS = Central Nervous System

NOAEL = No Observed Adverse Effect Level

TABLE 5.2

NON-CANCER TOXICITY DATA -- INHALATION

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD (1)		Primary Target Organ(s)	Combined Uncert/Mod Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Aluminum	Chronic	NA	NA	1.4E-03	mg/kg-day	CNS	300	PPRTV	10/2004
Antimony	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Aroclor 1260	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Arsenic	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Barium	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(a)anthracene	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(a)pyrene	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(b)fluoranthene	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(k)fluoranthene	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Cadmium	Chronic	NA	NA	5.7E-05	mg/kg-day	NA	NA	NCEA	11/11/2007
Chromium VI	Chronic	1.0E-04	mg/m^3	2.9E-05	mg/kg-day	lung	300	IRIS	11/11/2007
Copper	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Dibenzo(a,h)anthracene	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Dieldrin	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Hexachlorobenzene	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Indeno(1,2,3-cd)pyrene	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Iron	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Lead	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Manganese	Chronic	5.0E-05	mg/m^3	1.4E-05	mg/kg-day	CNS	1000/1	IRIS	11/11/2007
Mercury	Chronic	3.0E-04	mg/m^3	8.6E-05	mg/kg-day	CNS	30	IRIS	11/11/2007
Nickel	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Silver	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Thallium	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Vanadium	Chronic	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007

Note:

(1) Adjusted based on the inhalation RfC, body weight of 70 kg, and inhalation ratee of 20 m^3/day.

Definitions:

NA = Not Available

IRIS = Integrated Risk Information System

HEAST = Health Effects Assessment Summary Tables

NCEA = National Center for Environmental Assessment

PPRTV = Preliminary Peer-Reviewed Toxicity Value

TABLE 6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
WASTEBEDS 1 - 8: Bike Trail
GEDDES. NEW YORK

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal (1)	Absorbed Cancer Slope Factor for Dermal (2)		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Aluminum	NA	NA	NA	NA	NA	D	IRIS	11/11/2007
Antimony	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Aroclor 1260	2.0E+00	$(mg/kg\text{-}day)^{-1}$	> 50%	2.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Arsenic	1.5E+00	$(mg/kg\text{-}day)^{-1}$	95%	1.5E+00	$(mg/kg\text{-}day)^{-1}$	A	IRIS	11/11/2007
Barium	NA	NA	NA	NA	NA	D	IRIS	11/11/2007
Benzo(a)anthracene (3)	7.3E-01	$(mg/kg\text{-}day)^{-1}$	58-89%	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	5/1/2001
Benzo(a)pyrene (3)	7.3E+00	$(mg/kg\text{-}day)^{-1}$	58-89%	7.3E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Benzo(b)fluoranthene (3)	7.3E-01	$(mg/kg\text{-}day)^{-1}$	58-89%	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	5/1/2001
Benzo(k)fluoranthene (3)	7.3E-02	$(mg/kg\text{-}day)^{-1}$	58-89%	7.3E-02	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	5/1/2001
Cadmium	NA	NA	NA	NA	NA	B1	IRIS	11/11/2007
Chromium VI	NA	NA	NA	NA	NA	D	IRIS	11/11/2007
Copper	NA	NA	NA	NA	NA	D	IRIS	11/11/2007
Dibenzo(a,h)anthracene (3)	7.3E+00	$(mg/kg\text{-}day)^{-1}$	58-89%	7.3E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Dieldrin	1.6E+01	$(mg/kg\text{-}day)^{-1}$	> 50%	1.6E+01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Hexachlorobenzene	1.6E+00	$(mg/kg\text{-}day)^{-1}$	> 50%	1.6E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Indeno(1,2,3-cd)pyrene	7.3E-01	$(mg/kg\text{-}day)^{-1}$	58-89%	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	5/1/2001
Iron	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Lead	NA	NA	NA	NA	NA	B2	IRIS	11/11/2007
Manganese	NA	NA	NA	NA	NA	D	IRIS	11/11/2007
Mercury	NA	NA	NA	NA	NA	C	IRIS	11/11/2007
Nickel	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007
Silver	NA	NA	NA	NA	NA	D	IRIS	11/11/2007
Thallium	NA	NA	NA	NA	NA	D	IRIS	11/11/2007
Vanadium	NA	NA	NA	NA	NA	NA	IRIS	11/11/2007

Note:

(1) Source: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. Section 4.2 and Exhibit 4-1. USEPA recommends that the oral slope factor should not be adjusted to estimate the absorbed dose for compounds when the absorption efficiency is greater than 50%. Constituents that do not have oral absorption efficiencies reported on this table were assumed to have an oral absorption efficiency of 100%.

(2) Adjusted based on RAGS Part E.

(3) This chemical operates with a mutagenic mode of action (USEPA 2005).

Chemical-specific data are not available, thus, USEPA (2005) default age-dependant adjustment factors (ADAF) will be applied to the slope factor as follows:

AGE	AGE ADAF
0-<2	10
2-<16	3
16-<30	1

Weight of Evidence definitions:

Group A chemicals (known human carcinogens) are agents for which there is sufficient evidence to support the causal association between exposure to the agents in humans and cancer.

Group B1 chemicals (probable human carcinogens) are agents for which there is limited evidence of possible carcinogenicity in humans.

Group B2 chemicals (probable human carcinogens) are agents for which there is sufficient evidence of carcinogenicity in animals but inadequate or a lack of evidence in humans.

Group C chemicals (possible human carcinogens) are agents for which there is limited evidence of carcinogenicity in animals and inadequate or a lack of human data.

Group D chemicals (not classifiable as to human carcinogenicity) are agents with inadequate human and animal evidence of carcinogenicity or for which no data are available.

Group E chemicals (evidence of noncarcinogenicity in humans) are agents for which there is no evidence of carcinogenicity from human or animal studies, or both.

Definitions:

NA = Not Available

IRIS = Integrated Risk Information System

HEAST = Health Effects Assessment Summary Tables

NCEA = National Center for Environmental Assessment

TABLE 6.2

CANCER TOXICITY DATA -- INHALATION

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date (s) (MM/DD/YYYY)
Aluminum	NA	NA	NA	NA	NA	IRIS	11/11/2007
Antimony	NA	NA	NA	NA	NA	IRIS	11/11/2007
Aroclor 1260	NA	NA	2.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.5E+01	$(mg/kg\text{-}day)^{-1}$	A	IRIS	11/11/2007
Barium	NA	NA	NA	NA	NA	IRIS	11/11/2007
Benzo(a)anthracene (1)	NA	NA	3.1E-01	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	1/24/2003
Benzo(a)pyrene (1)	8.8E-04	$(ug/m^3)^{-1}$	3.1E+00	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	11/11/2007
Benzo(b)fluoranthene (1)	NA	NA	3.1E-01	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	1/24/2003
Benzo(k)fluoranthene (1)	NA	NA	3.1E-02	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	1/24/2003
Cadmium	1.8E-03	$(ug/m^3)^{-1}$	6.3E+00	$(mg/kg\text{-}day)^{-1}$	B1	IRIS	11/11/2007
Chromium VI	1.2E-02	$(ug/m^3)^{-1}$	4.2E+01	$(mg/kg\text{-}day)^{-1}$	A	IRIS	11/11/2007
Copper	NA	NA	NA	NA	NA	IRIS	11/11/2007
Dibenzo(a,h)anthracene (1)	8.8E-04	$(ug/m^3)^{-1}$	3.1E+00	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	1/24/2003
Dieldrin	4.6E-03	$(ug/m^3)^{-1}$	1.6E+01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Hexachlorobenzene	4.6E-04	$(ug/m^3)^{-1}$	1.6E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/11/2007
Indeno(1,2,3-cd)pyrene	NA	NA	3.1E-01	$(mg/kg\text{-}day)^{-1}$	B2	NCEA	1/24/2003
Iron	NA	NA	NA	NA	NA	IRIS	11/11/2007
Lead	NA	NA	NA	NA	B2	IRIS	11/11/2007
Manganese	NA	NA	NA	NA	D	IRIS	11/11/2007
Mercury	NA	NA	NA	NA	C	IRIS	11/11/2007
Nickel	2.4E-04	$(ug/m^3)^{-1}$	8.4E-01	$(ug/m^3)^{-1}$	A	IRIS	11/11/2007
Silver	NA	NA	NA	NA	NA	IRIS	11/11/2007
Thallium	NA	NA	NA	NA	NA	IRIS	11/11/2007
Vanadium	NA	NA	NA	NA	NA	IRIS	11/11/2007

Note:

Definitions: NA = Not Available

IRIS = Integrated Risk Information System

HEAST = Health Effects Assessment Summary Tables

NCEA = National Center for Environmental Assessment

Cal/EPA = California Environmental Protection Agency

(1) This chemical operates with a mutagenic mode of action (USEPA 2005).

Chemical-specific data are not available, thus, USEPA (2005) default age-dependant adjustment factors (ADAF) will be applied to the slope factor as follows:

AGE	AGE ADAF
0-<2	10
2-<16	3
16-<30	1

Weight of Evidence definitions:

Group A chemicals (known human carcinogens) are agents for which there is sufficient evidence to support the causal association between exposure to the agents in humans and cancer.

Group B1 chemicals (probable human carcinogens) are agents for which there is limited evidence of possible carcinogenicity in humans.

Group B2 chemicals (probable human carcinogens) are agents for which there is sufficient evidence of carcinogenicity in animals but inadequate or a lack of evidence in humans.

Group C chemicals (possible human carcinogens) are agents for which there is limited evidence of carcinogenicity in animals and inadequate or a lack of human data.

Group D chemicals (not classifiable as to human carcinogenicity) are agents with inadequate human and animal evidence of carcinogenicity or for which no data are available.

Group E chemicals (evidence of noncarcinogenicity in humans) are agents for which there is no evidence of carcinogenicity from human or animal studies, or both.

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe: Future
Receptor Population: Child
Receptor Age: 0 - 6 yrs.

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Air	Inhalation of Fugitive Dust	ALUMINUM	8.7E+03	mg/kg	7.2E-08	mg/kg-day	NA	1/(mg/kg-day)		8.4E-07	mg/kg-day	1.4E-03	mg/kg-day	5.9E-04
				ANTIMONY	1.3E+01	mg/kg	1.1E-10	mg/kg-day	NA	1/(mg/kg-day)		1.3E-09	mg/kg-day	NA	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	4.2E-11	mg/kg-day	2.0E+00	1/(mg/kg-day)	8.5E-11	4.9E-10	mg/kg-day	NA	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg	1.4E-10	mg/kg-day	1.5E+01	1/(mg/kg-day)	2.2E-09	1.7E-09	mg/kg-day	NA	mg/kg-day	
				BARIUM	6.1E+02	mg/kg	5.1E-09	mg/kg-day	NA	1/(mg/kg-day)		5.9E-08	mg/kg-day	NA	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	5.9E-10	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	5.3E-09	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	5.9E-10	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.4E-11	(a)	mg/kg-day	NA	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	7.8E-10	mg/kg-day	6.3E+00	1/(mg/kg-day)	4.9E-09	9.1E-09	mg/kg-day	5.7E-05	mg/kg-day	1.6E-04
				CHROMIUM VI	7.7E+01	mg/kg	6.4E-10	mg/kg-day	4.2E+01	1/(mg/kg-day)	2.7E-08	7.5E-09	mg/kg-day	2.9E-05	mg/kg-day	2.6E-04
				COPPER	1.1E+03	mg/kg	8.9E-09	mg/kg-day	NA	1/(mg/kg-day)		1.0E-07	mg/kg-day	NA	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.6E-09	(a)	mg/kg-day	NA	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	2.0E-12	mg/kg-day	1.6E+01	1/(mg/kg-day)	3.2E-11	2.4E-11	mg/kg-day	NA	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg	1.4E-11	mg/kg-day	1.6E+00	1/(mg/kg-day)	2.3E-11	1.7E-10	mg/kg-day	NA	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.2E-10	(a)	mg/kg-day	NA	mg/kg-day	
				IRON	1.8E+04	mg/kg	1.5E-07	mg/kg-day	NA	1/(mg/kg-day)		1.7E-06	mg/kg-day	NA	mg/kg-day	
				LEAD	2.7E+02	mg/kg	2.2E-09	mg/kg-day	NA	1/(mg/kg-day)		2.6E-08	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	3.4E-09	mg/kg-day	NA	1/(mg/kg-day)		4.0E-08	mg/kg-day	1.4E-05	mg/kg-day	2.8E-03
				MERCURY	6.7E+00	mg/kg	5.6E-11	mg/kg-day	NA	1/(mg/kg-day)		6.5E-10	mg/kg-day	8.6E-05	mg/kg-day	7.6E-06
				NICKEL	9.0E+01	mg/kg	7.5E-10	mg/kg-day	8.4E-01	1/(mg/kg-day)	6.3E-10	8.7E-09	mg/kg-day	NA	mg/kg-day	
				SILVER	5.3E+01	mg/kg	4.4E-10	mg/kg-day	NA	1/(mg/kg-day)		5.1E-09	mg/kg-day	NA	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg	1.3E-11	mg/kg-day	NA	1/(mg/kg-day)		1.5E-10	mg/kg-day	NA	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg	2.0E-10	mg/kg-day	NA	1/(mg/kg-day)		2.3E-09	mg/kg-day	NA	mg/kg-day	
			Exp. Route Total								4.3E-08					3.8E-03
		Exposure Point Total									4.3E-08					3.8E-03
	Exposure Medium Total										4.3E-08					3.8E-03
Surface Soil Total											4.3E-08					3.8E-03
										Total of Receptor Risks Across All Media	4.3E-08				Total of Receptor Hazards Across All Media	3.8E-03

Note:
(a)See Table 7.1.RME Supplement A for the Intake and Toxicity Values for the MMOA COPCs.

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Older child
Receptor Age:	6-12 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Air	Inhalation of Fugitive Dust	ALUMINUM	8.7E+03	mg/kg	3.3E-08	mg/kg-day	NA	1/(mg/kg-day)		3.8E-07	mg/kg-day	1.4E-03	mg/kg-day	2.7E-04
				ANTIMONY	1.3E+01	mg/kg	5.0E-11	mg/kg-day	NA	1/(mg/kg-day)		5.8E-10	mg/kg-day	NA	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	1.9E-11	mg/kg-day	2.0E+00	1/(mg/kg-day)	3.9E-11	2.2E-10	mg/kg-day	NA	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg	6.6E-11	mg/kg-day	1.5E+01	1/(mg/kg-day)	9.9E-10	7.7E-10	mg/kg-day	NA	mg/kg-day	
				BARIUM	6.1E+02	mg/kg	2.3E-09	mg/kg-day	NA	1/(mg/kg-day)		2.7E-08	mg/kg-day	NA	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	see Table _	1/(mg/kg-day)	2.4E-10	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	see Table _	1/(mg/kg-day)	2.2E-09	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	see Table _	1/(mg/kg-day)	2.4E-10	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	see Table _	1/(mg/kg-day)	5.7E-12	(a)	mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	3.5E-10	mg/kg-day	6.3E+00	1/(mg/kg-day)	2.2E-09	4.1E-09	mg/kg-day	5.7E-05	mg/kg-day	7.3E-05
				CHROMIUM VI	7.7E+01	mg/kg	2.9E-10	mg/kg-day	4.2E+01	1/(mg/kg-day)	1.2E-08	3.4E-09	mg/kg-day	2.9E-05	mg/kg-day	1.2E-04
				COPPER	1.1E+03	mg/kg	4.0E-09	mg/kg-day	NA	1/(mg/kg-day)		4.7E-08	mg/kg-day	NA	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	see Table _	1/(mg/kg-day)	6.6E-10	(a)	mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	9.2E-13	mg/kg-day	1.6E+01	1/(mg/kg-day)	1.5E-11	1.1E-11	mg/kg-day	NA	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg	6.4E-12	mg/kg-day	1.6E+00	1/(mg/kg-day)	1.0E-11	7.5E-11	mg/kg-day	NA	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	see Table _	1/(mg/kg-day)	4.9E-11	(a)	mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg	6.8E-08	mg/kg-day	NA	1/(mg/kg-day)		7.9E-07	mg/kg-day	NA	mg/kg-day	
				LEAD	2.7E+02	mg/kg	1.0E-09	mg/kg-day	NA	1/(mg/kg-day)		1.2E-08	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	1.5E-09	mg/kg-day	NA	1/(mg/kg-day)		1.8E-08	mg/kg-day	1.4E-05	mg/kg-day	1.3E-03
				MERCURY	6.7E+00	mg/kg	2.5E-11	mg/kg-day	NA	1/(mg/kg-day)		3.0E-10	mg/kg-day	8.6E-05	mg/kg-day	3.4E-06
				NICKEL	9.0E+01	mg/kg	3.4E-10	mg/kg-day	8.4E-01	1/(mg/kg-day)	2.8E-10	4.0E-09	mg/kg-day	NA	mg/kg-day	
				SILVER	5.3E+01	mg/kg	2.0E-10	mg/kg-day	NA	1/(mg/kg-day)		2.3E-09	mg/kg-day	NA	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg	5.7E-12	mg/kg-day	NA	1/(mg/kg-day)		6.6E-11	mg/kg-day	NA	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg	9.1E-11	mg/kg-day	NA	1/(mg/kg-day)		1.1E-09	mg/kg-day	NA	mg/kg-day	
			Exp. Route Total								1.9E-08					1.7E-03
		Exposure Point Total									1.9E-08					1.7E-03
	Exposure Medium Total										1.9E-08					1.7E-03
Surface Soil Total											1.9E-08					1.7E-03
										Total of Receptor Risks Across All Media	1.9E-08				Total of Receptor Hazards Across All Media	1.7E-03

Note:

(a)See Table 7.2.RME Supplement A for the Intake and Toxicity Values for the MMOA COPCs.

TABLE 7.3a.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1 - 8: Bike Trail
GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adolescent on trail
Receptor Age:	12-16 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Surface Soil	Incidental Ingestion	ALUMINUM	8.7E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E+00	mg/kg-day	
				ANTIMONY	1.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	4.0E-04	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg		mg/kg-day	2.0E+00	1/(mg/kg-day)			mg/kg-day	2.0E-05	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg		mg/kg-day	2.0E+00	1/(mg/kg-day)			mg/kg-day	3.0E-04	mg/kg-day	
				BARIUM	6.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.0E-01	mg/kg-day	
				BENZO(A)ANTHRACENE	6.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				BENZO(K)FLUORANTHENE	9.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-03	mg/kg-day	
				CHROMIUM VI	7.7E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	3.0E-03	mg/kg-day	
				COPPER	1.1E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.3E+00	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg		mg/kg-day	1.6E+01	1/(mg/kg-day)			mg/kg-day	5.0E-05	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg		mg/kg-day	1.6E+00	1/(mg/kg-day)			mg/kg-day	8.0E-04	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				IRON	1.8E+04	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	7.0E-01	mg/kg-day	
				LEAD	2.7E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.4E-01	mg/kg-day	
				MERCURY	6.7E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-04	mg/kg-day	
				NICKEL	9.0E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.0E-02	mg/kg-day	
				SILVER	5.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	5.0E-03	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	6.6E-05	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-03	mg/kg-day	
			Exp. Route Total								0.0E+00					0.0E+00
			Dermal	ALUMINUM	8.7E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E+00	mg/kg-day	
				ANTIMONY	1.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	6.0E-05	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg		mg/kg-day	2.0E+00	1/(mg/kg-day)			mg/kg-day	2.0E-05	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg		mg/kg-day	1.5E+00	1/(mg/kg-day)			mg/kg-day	3.0E-04	mg/kg-day	
				BARIUM	6.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.0E-01	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg		mg/kg-day	7.3E-01	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg		mg/kg-day	7.3E+00	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg		mg/kg-day	7.3E-01	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg		mg/kg-day	7.3E-02	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.5E-05	mg/kg-day	
				CHROMIUM VI	7.7E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	3.0E-03	mg/kg-day	
				COPPER	1.1E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.3E+00	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg		mg/kg-day	7.3E+00	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg		mg/kg-day	1.6E+01	1/(mg/kg-day)			mg/kg-day	5.0E-05	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg		mg/kg-day	1.6E+00	1/(mg/kg-day)			mg/kg-day	8.0E-04	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg		mg/kg-day	7.3E-01	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				IRON	1.8E+04	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	7.0E-01	mg/kg-day	
				LEAD	2.7E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	5.6E-03	mg/kg-day	
				MERCURY	6.7E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-04	mg/kg-day	
				NICKEL	9.0E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	8.0E-04	mg/kg-day	
				SILVER	5.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	5.0E-03	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	6.6E-05	mg/kg-day	

TABLE 7.3a.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adolescent on trail
Receptor Age:	12-16 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
				VANADIUM	2.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.6E-05	mg/kg-day	
			Exp. Route Total								0.0E+00					0.0E+00
		Exposure Point Total									0.0E+00					0.0E+00
	Exposure Medium Total										0.0E+00					0.0E+00
	Surface Soil	Air	Inhalation of Fugitive Dust	ALUMINUM	8.7E+03	mg/kg	9.8E-09	mg/kg-day	NA	1/(mg/kg-day)		1.4E-07	mg/kg-day	1.4E-03	mg/kg-day	9.6E-05
				ANTIMONY	1.3E+01	mg/kg	1.5E-11	mg/kg-day	NA	1/(mg/kg-day)		2.1E-10	mg/kg-day	NA	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	5.8E-12	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.2E-11	8.1E-11	mg/kg-day	NA	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg	2.0E-11	mg/kg-day	1.5E+01	1/(mg/kg-day)	3.0E-10	2.7E-10	mg/kg-day	NA	mg/kg-day	
				BARIUM	6.1E+02	mg/kg	6.9E-10	mg/kg-day	NA	1/(mg/kg-day)		9.6E-09	mg/kg-day	NA	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	5.2E-11	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	4.7E-10	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	5.2E-11	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.2E-12	(a)	mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	1.1E-10	mg/kg-day	6.3E+00	1/(mg/kg-day)	6.7E-10	1.5E-09	mg/kg-day	5.7E-05	mg/kg-day	2.6E-05
				CHROMIUM VI	7.7E+01	mg/kg	8.7E-11	mg/kg-day	4.2E+01	1/(mg/kg-day)	3.6E-09	1.2E-09	mg/kg-day	2.9E-05	mg/kg-day	4.2E-05
				COPPER	1.1E+03	mg/kg	1.2E-09	mg/kg-day	NA	1/(mg/kg-day)		1.7E-08	mg/kg-day	NA	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.4E-10	(a)	mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	2.8E-13	mg/kg-day	1.6E+01	1/(mg/kg-day)	4.4E-12	3.9E-12	mg/kg-day	NA	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg	1.9E-12	mg/kg-day	1.6E+00	1/(mg/kg-day)	3.1E-12	2.7E-11	mg/kg-day	NA	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.1E-11	(a)	mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg	2.0E-08	mg/kg-day	NA	1/(mg/kg-day)		2.8E-07	mg/kg-day	NA	mg/kg-day	
				LEAD	2.7E+02	mg/kg	3.0E-10	mg/kg-day	NA	1/(mg/kg-day)		4.2E-09	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	4.6E-10	mg/kg-day	NA	1/(mg/kg-day)		6.4E-09	mg/kg-day	1.4E-05	mg/kg-day	4.5E-04
				MERCURY	6.7E+00	mg/kg	7.6E-12	mg/kg-day	NA	1/(mg/kg-day)		1.1E-10	mg/kg-day	8.6E-05	mg/kg-day	1.2E-06
				NICKEL	9.0E+01	mg/kg	1.0E-10	mg/kg-day	8.4E-01	1/(mg/kg-day)	8.5E-11	1.4E-09	mg/kg-day	NA	mg/kg-day	
				SILVER	5.3E+01	mg/kg	6.0E-11	mg/kg-day	NA	1/(mg/kg-day)		8.4E-10	mg/kg-day	NA	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg	1.7E-12	mg/kg-day	NA	1/(mg/kg-day)		2.4E-11	mg/kg-day	NA	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg	2.7E-11	mg/kg-day	NA	1/(mg/kg-day)		3.8E-10	mg/kg-day	NA	mg/kg-day	
			Exp. Route Total								5.4E-09					6.2E-04
		Exposure Point Total									5.4E-09					6.2E-04
	Exposure Medium Total										5.4E-09					6.2E-04
Surface Soil Total											5.4E-09					6.2E-04
										Total of Receptor Risks Across All Media	5.4E-09				Total of Receptor Hazards Across All Media	6.2E-04

Note:
(a)See Table 7.3a.RME Supplement A for the Intake and Toxicity Values for the MMOA COPCs.

TABLE 7.3b.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1 - 8: Bike Trail
GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adolescent off trail
Receptor Age:	12-16 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Surface Soil	Incidental Ingestion	ALUMINUM	8.7E+03	mg/kg	1.8E-04	mg/kg-day	NA	1/(mg/kg-day)		6.4E-04	mg/kg-day	1.0E+00	mg/kg-day	6.4E-04
				ANTIMONY	1.3E+01	mg/kg	2.8E-07	mg/kg-day	NA	1/(mg/kg-day)		9.7E-07	mg/kg-day	4.0E-04	mg/kg-day	2.4E-03
				AROCLOR 1260	5.1E+00	mg/kg	1.1E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	2.1E-07	3.8E-07	mg/kg-day	2.0E-05	mg/kg-day	1.9E-02
				ARSENIC	1.7E+01	mg/kg	3.7E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	7.3E-07	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.3E-03
				BARIUM	6.1E+02	mg/kg	1.3E-05	mg/kg-day	NA	1/(mg/kg-day)		4.5E-05	mg/kg-day	2.0E-01	mg/kg-day	2.2E-04
				BENZO(A)ANTHRACENE	6.1E+02	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	4.0E-07	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.6E-05	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	4.0E-07	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(K)FLUORANTHENE	9.4E+01	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	9.9E-09	(a)	mg/kg-day	NA	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	2.0E-06	mg/kg-day	NA	1/(mg/kg-day)		6.9E-06	mg/kg-day	1.0E-03	mg/kg-day	6.9E-03
				CHROMIUM VI	7.7E+01	mg/kg	1.6E-06	mg/kg-day	NA	1/(mg/kg-day)		5.7E-06	mg/kg-day	3.0E-03	mg/kg-day	1.9E-03
				COPPER	1.1E+03	mg/kg	2.2E-05	mg/kg-day	NA	1/(mg/kg-day)		7.8E-05	mg/kg-day	1.3E+00	mg/kg-day	6.0E-05
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.1E-06	(a)	mg/kg-day	NA	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	5.1E-09	mg/kg-day	1.6E+01	1/(mg/kg-day)	8.2E-08	1.8E-08	mg/kg-day	5.0E-05	mg/kg-day	3.6E-04
				HEXACHLOROBENZENE	1.7E+00	mg/kg	3.6E-08	mg/kg-day	1.6E+00	1/(mg/kg-day)	5.7E-08	1.3E-07	mg/kg-day	8.0E-04	mg/kg-day	1.6E-04
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	8.1E-08	(a)	mg/kg-day	NA	mg/kg-day	
				IRON	1.8E+04	mg/kg	3.8E-04	mg/kg-day	NA	1/(mg/kg-day)		1.3E-03	mg/kg-day	7.0E-01	mg/kg-day	1.9E-03
				LEAD	2.7E+02	mg/kg	5.6E-06	mg/kg-day	NA	1/(mg/kg-day)		2.0E-05	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	8.6E-06	mg/kg-day	NA	1/(mg/kg-day)		3.0E-05	mg/kg-day	1.4E-01	mg/kg-day	2.1E-04
				MERCURY	6.7E+00	mg/kg	1.4E-07	mg/kg-day	NA	1/(mg/kg-day)		4.9E-07	mg/kg-day	1.0E-04	mg/kg-day	4.9E-03
				NICKEL	9.0E+01	mg/kg	1.9E-06	mg/kg-day	NA	1/(mg/kg-day)		6.6E-06	mg/kg-day	2.0E-02	mg/kg-day	3.3E-04
				SILVER	5.3E+01	mg/kg	1.1E-06	mg/kg-day	NA	1/(mg/kg-day)		3.9E-06	mg/kg-day	5.0E-03	mg/kg-day	7.8E-04
				THALLIUM	1.5E+00	mg/kg	3.2E-08	mg/kg-day	NA	1/(mg/kg-day)		1.1E-07	mg/kg-day	6.6E-05	mg/kg-day	1.7E-03
				VANADIUM	2.4E+01	mg/kg	5.0E-07	mg/kg-day	NA	1/(mg/kg-day)		1.8E-06	mg/kg-day	1.0E-03	mg/kg-day	1.8E-03
			Exp. Route Total								3.9E-05					4.7E-02
			Dermal	ALUMINUM	8.7E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	1.0E+00	mg/kg-day	
				ANTIMONY	1.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	6.0E-05	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	6.9E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.4E-06	9.7E-06	mg/kg-day	2.0E-05	mg/kg-day	4.9E-01
				ARSENIC	1.7E+01	mg/kg	5.1E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	7.6E-07	7.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.4E-02
				BARIUM	6.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	2.0E-01	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	2.7E-07	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	2.4E-06	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	2.7E-07	(a)	mg/kg-day	NA	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	6.6E-09	(a)	mg/kg-day	NA	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	9.1E-08	mg/kg-day	NA	1/(mg/kg-day)		1.3E-06	mg/kg-day	2.5E-05	mg/kg-day	5.1E-02
				CHROMIUM VI	7.7E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	3.0E-03	mg/kg-day	
				COPPER	1.1E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	1.3E+00	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	7.4E-07	(a)	mg/kg-day	NA	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg		mg/kg-day	1.6E+01	1/(mg/kg-day)		(b)	mg/kg-day	5.0E-05	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg		mg/kg-day	1.6E+00	1/(mg/kg-day)		(b)	mg/kg-day	8.0E-04	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	5.4E-08	(a)	mg/kg-day	NA	mg/kg-day	
				IRON	1.8E+04	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	7.0E-01	mg/kg-day	
				LEAD	2.7E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	5.6E-03	mg/kg-day	
				MERCURY	6.7E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	1.0E-04	mg/kg-day	
				NICKEL	9.0E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	8.0E-04	mg/kg-day	
				SILVER	5.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	5.0E-03	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	6.6E-05	mg/kg-day	

TABLE 7.3b.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adolescent off trail
Receptor Age:	12-16 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
				VANADIUM	2.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	2.6E-05	mg/kg-day	
			Exp. Route Total								5.9E-06					5.6E-01
		Exposure Point Total									4.5E-05					6.1E-01
	Exposure Medium Total										4.5E-05					6.1E-01
	Surface Soil	Air	Inhalation of Fugitive Dust	ALUMINUM	8.7E+03	mg/kg	4.7E-05	mg/kg-day	NA	1/(mg/kg-day)		6.6E-04	mg/kg-day	1.4E-03	mg/kg-day	4.6E-01
				ANTIMONY	1.3E+01	mg/kg	7.2E-08	mg/kg-day	NA	1/(mg/kg-day)		1.0E-06	mg/kg-day	NA	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	2.8E-08	mg/kg-day	2.0E+00	1/(mg/kg-day)	5.6E-08	3.9E-07	mg/kg-day	NA	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg	9.5E-08	mg/kg-day	1.5E+01	1/(mg/kg-day)	1.4E-06	1.3E-06	mg/kg-day	NA	mg/kg-day	
				BARIUM	6.1E+02	mg/kg	3.3E-06	mg/kg-day	NA	1/(mg/kg-day)		4.6E-05	mg/kg-day	NA	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.7E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.3E-06	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.7E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	8.8E-09	(a)	mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	5.1E-07	mg/kg-day	6.3E+00	1/(mg/kg-day)	3.2E-06	7.2E-06	mg/kg-day	5.7E-05	mg/kg-day	1.3E-01
				CHROMIUM VI	7.7E+01	mg/kg	4.2E-07	mg/kg-day	4.2E+01	1/(mg/kg-day)	1.8E-05	5.9E-06	mg/kg-day	2.9E-05	mg/kg-day	2.0E-01
				COPPER	1.1E+03	mg/kg	5.8E-06	mg/kg-day	NA	1/(mg/kg-day)		8.1E-05	mg/kg-day	NA	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.0E-06	(a)	mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	1.3E-09	mg/kg-day	1.6E+01	1/(mg/kg-day)	2.1E-08	1.9E-08	mg/kg-day	NA	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg	9.3E-09	mg/kg-day	1.6E+00	1/(mg/kg-day)	1.5E-08	1.3E-07	mg/kg-day	NA	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	7.5E-08	(a)	mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg	9.8E-05	mg/kg-day	NA	1/(mg/kg-day)		1.4E-03	mg/kg-day	NA	mg/kg-day	
				LEAD	2.7E+02	mg/kg	1.5E-06	mg/kg-day	NA	1/(mg/kg-day)		2.0E-05	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	2.2E-06	mg/kg-day	NA	1/(mg/kg-day)		3.1E-05	mg/kg-day	1.4E-05	mg/kg-day	2.2E+00
				MERCURY	6.7E+00	mg/kg	3.7E-08	mg/kg-day	NA	1/(mg/kg-day)		5.1E-07	mg/kg-day	8.6E-05	mg/kg-day	6.0E-03
				NICKEL	9.0E+01	mg/kg	4.9E-07	mg/kg-day	8.4E-01	1/(mg/kg-day)	4.1E-07	6.8E-06	mg/kg-day	NA	mg/kg-day	
				SILVER	5.3E+01	mg/kg	2.9E-07	mg/kg-day	NA	1/(mg/kg-day)		4.0E-06	mg/kg-day	NA	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg	8.2E-09	mg/kg-day	NA	1/(mg/kg-day)		1.2E-07	mg/kg-day	NA	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg	1.3E-07	mg/kg-day	NA	1/(mg/kg-day)		1.8E-06	mg/kg-day	NA	mg/kg-day	
			Exp. Route Total								2.8E-05					3.0E+00
		Exposure Point Total									2.8E-05					3.0E+00
	Exposure Medium Total										2.8E-05					3.0E+00
Surface Soil Total											7.3E-05					3.6E+00
										Total of Receptor Risks Across All Media	7.3E-05				Total of Receptor Hazards Across All Media	3.6E+00

Note:
(a) See Table 7.3a.RME Supplement A for the Intake and Toxicity Values for the MMOA COPCs.
(b) Data are not sufficient to determine the dermally absorbed dose for this chemical (RAGS E, 2004)

TABLE 7.4a.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1 - 8: Bike Trail
GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adult on trail
Receptor Age:	16-30 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Surface Soil	Incidental Ingestion	ALUMINUM	8.7E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E+00	mg/kg-day	
				ANTIMONY	1.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	4.0E-04	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg		mg/kg-day	2.0E+00	1/(mg/kg-day)			mg/kg-day	2.0E-05	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg		mg/kg-day	2.0E+00	1/(mg/kg-day)			mg/kg-day	3.0E-04	mg/kg-day	
				BARIUM	6.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.0E-01	mg/kg-day	
				BENZO(A)ANTHRACENE	6.1E+02	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	9.4E+01	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-03	mg/kg-day	
				CHROMIUM VI	7.7E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	3.0E-03	mg/kg-day	
				COPPER	1.1E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.3E+00	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg		mg/kg-day	1.6E+01	1/(mg/kg-day)			mg/kg-day	5.0E-05	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg		mg/kg-day	1.6E+00	1/(mg/kg-day)			mg/kg-day	8.0E-04	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	7.0E-01	mg/kg-day	
				LEAD	2.7E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.4E-01	mg/kg-day	
				MERCURY	6.7E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-04	mg/kg-day	
				NICKEL	9.0E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.0E-02	mg/kg-day	
				SILVER	5.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	5.0E-03	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	6.6E-05	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-03	mg/kg-day	
			Exp. Route Total								0.0E+00					0.0E+00
			Dermal	ALUMINUM	8.7E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E+00	mg/kg-day	
				ANTIMONY	1.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	6.0E-05	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg		mg/kg-day	2.0E+00	1/(mg/kg-day)			mg/kg-day	2.0E-05	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg		mg/kg-day	1.5E+00	1/(mg/kg-day)			mg/kg-day	3.0E-04	mg/kg-day	
				BARIUM	6.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.0E-01	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.5E-05	mg/kg-day	
				CHROMIUM VI	7.7E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	3.0E-03	mg/kg-day	
				COPPER	1.1E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.3E+00	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg		mg/kg-day	1.6E+01	1/(mg/kg-day)			mg/kg-day	5.0E-05	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg		mg/kg-day	1.6E+00	1/(mg/kg-day)			mg/kg-day	8.0E-04	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg		mg/kg-day	(a)	1/(mg/kg-day)			mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	7.0E-01	mg/kg-day	
				LEAD	2.7E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	5.6E-03	mg/kg-day	
				MERCURY	6.7E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	1.0E-04	mg/kg-day	
				NICKEL	9.0E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	8.0E-04	mg/kg-day	
				SILVER	5.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	5.0E-03	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	6.6E-05	mg/kg-day	

TABLE 7.4a.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adult on trail
Receptor Age:	16-30 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
				VANADIUM	2.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	2.6E-05	mg/kg-day	
			Exp. Route Total								0.0E+00					0.0E+00
		Exposure Point Total									0.0E+00					0.0E+00
	Exposure Medium Total										0.0E+00					0.0E+00
	Surface Soil	Air	Inhalation of Fugitive Dust	ALUMINUM	8.7E+03	mg/kg	2.6E-08	mg/kg-day	NA	1/(mg/kg-day)		1.2E-07	mg/kg-day	1.4E-03	mg/kg-day	8.4E-05
				ANTIMONY	1.3E+01	mg/kg	3.9E-11	mg/kg-day	NA	1/(mg/kg-day)		1.8E-10	mg/kg-day	NA	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	1.5E-11	mg/kg-day	2.0E+00	1/(mg/kg-day)	3.0E-11	7.1E-11	mg/kg-day	NA	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg	5.2E-11	mg/kg-day	1.5E+01	1/(mg/kg-day)	7.8E-10	2.4E-10	mg/kg-day	NA	mg/kg-day	
				BARIUM	6.1E+02	mg/kg	1.8E-09	mg/kg-day	NA	1/(mg/kg-day)		8.4E-09	mg/kg-day	NA	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	4.9E-11	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	4.4E-10	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	4.8E-11	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.2E-12	(a)	mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	2.8E-10	mg/kg-day	6.3E+00	1/(mg/kg-day)	1.8E-09	1.3E-09	mg/kg-day	5.7E-05	mg/kg-day	2.3E-05
				CHROMIUM VI	7.7E+01	mg/kg	2.3E-10	mg/kg-day	4.2E+01	1/(mg/kg-day)	9.6E-09	1.1E-09	mg/kg-day	2.9E-05	mg/kg-day	3.7E-05
				COPPER	1.1E+03	mg/kg	3.2E-09	mg/kg-day	NA	1/(mg/kg-day)		1.5E-08	mg/kg-day	NA	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.3E-10	(a)	mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	7.2E-13	mg/kg-day	1.6E+01	1/(mg/kg-day)	1.2E-11	3.4E-12	mg/kg-day	NA	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg	5.1E-12	mg/kg-day	1.6E+00	1/(mg/kg-day)	8.1E-12	2.4E-11	mg/kg-day	NA	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	9.9E-12	(a)	mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg	5.4E-08	mg/kg-day	NA	1/(mg/kg-day)		2.5E-07	mg/kg-day	NA	mg/kg-day	
				LEAD	2.7E+02	mg/kg	8.0E-10	mg/kg-day	NA	1/(mg/kg-day)		3.7E-09	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	1.2E-09	mg/kg-day	NA	1/(mg/kg-day)		5.6E-09	mg/kg-day	1.4E-05	mg/kg-day	4.0E-04
				MERCURY	6.7E+00	mg/kg	2.0E-11	mg/kg-day	NA	1/(mg/kg-day)		9.3E-11	mg/kg-day	8.6E-05	mg/kg-day	1.1E-06
				NICKEL	9.0E+01	mg/kg	2.7E-10	mg/kg-day	8.4E-01	1/(mg/kg-day)	2.2E-10	1.2E-09	mg/kg-day	NA	mg/kg-day	
				SILVER	5.3E+01	mg/kg	1.6E-10	mg/kg-day	NA	1/(mg/kg-day)		7.3E-10	mg/kg-day	NA	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg	4.5E-12	mg/kg-day	NA	1/(mg/kg-day)		2.1E-11	mg/kg-day	NA	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg	7.1E-11	mg/kg-day	NA	1/(mg/kg-day)		3.3E-10	mg/kg-day	NA	mg/kg-day	
			Exp. Route Total								1.3E-08					5.4E-04
		Exposure Point Total									1.3E-08					5.4E-04
	Exposure Medium Total										1.3E-08					5.4E-04
Surface Soil Total											1.3E-08					5.4E-04
										Total of Receptor Risks Across All Media	1.3E-08				Total of Receptor Hazards Across All Media	5.4E-04

Note:
(a)See Table 7.4a.RME Supplement A for the Intake and Toxicity Values for the MMOA COPCs

TABLE 7.4b.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adult off trail
Receptor Age:	16-30 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Surface Soil	Incidental Ingestion	ALUMINUM	8.7E+03	mg/kg	6.9E-04	mg/kg-day	NA	1/(mg/kg-day)		3.2E-03	mg/kg-day	1.0E+00	mg/kg-day	3.2E-03
				ANTIMONY	1.3E+01	mg/kg	1.0E-06	mg/kg-day	NA	1/(mg/kg-day)		4.9E-06	mg/kg-day	4.0E-04	mg/kg-day	1.2E-02
				AROCLOR 1260	5.1E+00	mg/kg	4.0E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	8.0E-07	1.9E-06	mg/kg-day	2.0E-05	mg/kg-day	9.4E-02
				ARSENIC	1.7E+01	mg/kg	1.4E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	2.7E-06	6.4E-06	mg/kg-day	3.0E-04	mg/kg-day	2.1E-02
				BARIUM	6.1E+02	mg/kg	4.8E-05	mg/kg-day	NA	1/(mg/kg-day)		2.2E-04	mg/kg-day	2.0E-01	mg/kg-day	1.1E-03
				BENZO(A)ANTHRACENE	6.1E+02	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.6E-07	2.2E-04	mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.1E-06	2.2E-06	mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.6E-07	2.4E-06	mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	9.4E+01	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	8.9E-09	3.5E-05	mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	7.4E-06	mg/kg-day	NA	1/(mg/kg-day)		3.5E-05	mg/kg-day	1.0E-03	mg/kg-day	3.5E-02
				CHROMIUM VI	7.7E+01	mg/kg	6.1E-06	mg/kg-day	NA	1/(mg/kg-day)		2.8E-05	mg/kg-day	3.0E-03	mg/kg-day	9.4E-03
				COPPER	1.1E+03	mg/kg	8.4E-05	mg/kg-day	NA	1/(mg/kg-day)		3.9E-04	mg/kg-day	1.3E+00	mg/kg-day	3.0E-04
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	1.4E-07	mg/kg-day	(a)	1/(mg/kg-day)	1.0E-06	6.6E-07	mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	1.9E-08	mg/kg-day	1.6E+01	1/(mg/kg-day)	3.1E-07	9.0E-08	mg/kg-day	5.0E-05	mg/kg-day	1.8E-03
				HEXACHLOROBENZENE	1.7E+00	mg/kg	1.3E-07	mg/kg-day	1.6E+00	1/(mg/kg-day)	2.1E-07	6.3E-07	mg/kg-day	8.0E-04	mg/kg-day	7.8E-04
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	7.2E-08	4.8E-07	mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg	1.4E-03	mg/kg-day	NA	1/(mg/kg-day)		6.6E-03	mg/kg-day	7.0E-01	mg/kg-day	9.5E-03
				LEAD	2.7E+02	mg/kg	2.1E-05	mg/kg-day	NA	1/(mg/kg-day)		9.9E-05	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	3.2E-05	mg/kg-day	NA	1/(mg/kg-day)		1.5E-04	mg/kg-day	1.4E-01	mg/kg-day	1.1E-03
				MERCURY	6.7E+00	mg/kg	5.3E-07	mg/kg-day	NA	1/(mg/kg-day)		2.5E-06	mg/kg-day	1.0E-04	mg/kg-day	2.5E-02
				NICKEL	9.0E+01	mg/kg	7.1E-06	mg/kg-day	NA	1/(mg/kg-day)		3.3E-05	mg/kg-day	2.0E-02	mg/kg-day	1.7E-03
				SILVER	5.3E+01	mg/kg	4.2E-06	mg/kg-day	NA	1/(mg/kg-day)		1.9E-05	mg/kg-day	5.0E-03	mg/kg-day	3.9E-03
				THALLIUM	1.5E+00	mg/kg	1.2E-07	mg/kg-day	NA	1/(mg/kg-day)		5.6E-07	mg/kg-day	6.6E-05	mg/kg-day	8.4E-03
				VANADIUM	2.4E+01	mg/kg	1.9E-06	mg/kg-day	NA	1/(mg/kg-day)		8.8E-06	mg/kg-day	1.0E-03	mg/kg-day	8.8E-03
			Exp. Route Total								9.0E-06					2.4E-01
			Dermal	ALUMINUM	8.7E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	1.0E+00	mg/kg-day	
				ANTIMONY	1.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	6.0E-05	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	2.2E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	4.5E-06	1.0E-05	mg/kg-day	2.0E-05	mg/kg-day	5.2E-01
				ARSENIC	1.7E+01	mg/kg	1.6E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.5E-06	7.7E-06	mg/kg-day	3.0E-04	mg/kg-day	2.6E-02
				BARIUM	6.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	2.0E-01	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.9E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.7E-06	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	1.9E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	4.6E-09	(a)	mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	3.0E-05	mg/kg-day	NA	1/(mg/kg-day)		1.4E-06	mg/kg-day	2.5E-05	mg/kg-day	5.5E-02
				CHROMIUM VI	7.7E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	3.0E-03	mg/kg-day	
				COPPER	1.1E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	1.3E+00	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	5.2E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg		mg/kg-day	1.6E+01	1/(mg/kg-day)		(b)	mg/kg-day	5.0E-05	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg		mg/kg-day	1.6E+00	1/(mg/kg-day)		(b)	mg/kg-day	8.0E-04	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.7E-08	(a)	mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	7.0E-01	mg/kg-day	
				LEAD	2.7E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	5.6E-03	mg/kg-day	
				MERCURY	6.7E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	1.0E-04	mg/kg-day	
				NICKEL	9.0E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	8.0E-04	mg/kg-day	
				SILVER	5.3E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	5.0E-03	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	6.6E-05	mg/kg-day	

TABLE 7.4b.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Adult off trail
Receptor Age:	16-30 yrs

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
				VANADIUM	2.4E+01	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		(b)	mg/kg-day	2.6E-05	mg/kg-day	
			Exp. Route Total								9.6E-06					6.0E-01
		Exposure Point Total									1.9E-05					8.4E-01
	Exposure Medium Total										1.9E-05					8.4E-01
	Surface Soil	Air	Inhalation of Fugitive Dust	ALUMINUM	8.7E+03	mg/kg	1.8E-04	mg/kg-day	NA	1/(mg/kg-day)		8.5E-04	mg/kg-day	1.4E-03	mg/kg-day	6.0E-01
				ANTIMONY	1.3E+01	mg/kg	2.8E-07	mg/kg-day	NA	1/(mg/kg-day)		1.3E-06	mg/kg-day	NA	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	1.1E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	2.1E-07	5.0E-07	mg/kg-day	NA	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg	3.7E-07	mg/kg-day	1.5E+01	1/(mg/kg-day)	5.5E-06	1.7E-06	mg/kg-day	NA	mg/kg-day	
				BARIUM	6.1E+02	mg/kg	1.3E-05	mg/kg-day	NA	1/(mg/kg-day)		6.0E-05	mg/kg-day	NA	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	6.4E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.1E-06	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	3.4E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	8.2E-09	(a)	mg/kg-day	(a)	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	2.0E-06	mg/kg-day	6.3E+00	1/(mg/kg-day)	1.2E-05	9.2E-06	mg/kg-day	5.7E-05	mg/kg-day	1.6E-01
				CHROMIUM VI	7.7E+01	mg/kg	1.6E-06	mg/kg-day	4.2E+01	1/(mg/kg-day)	6.8E-05	7.5E-06	mg/kg-day	2.9E-05	mg/kg-day	2.6E-01
				COPPER	1.1E+03	mg/kg	2.2E-05	mg/kg-day	NA	1/(mg/kg-day)		1.0E-04	mg/kg-day	NA	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	9.5E-07	(a)	mg/kg-day	(a)	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	5.1E-09	mg/kg-day	1.6E+01	1/(mg/kg-day)	8.2E-08	2.4E-08	mg/kg-day	NA	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg	3.6E-08	mg/kg-day	1.6E+00	1/(mg/kg-day)	5.7E-08	1.7E-07	mg/kg-day	NA	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	(a)	mg/kg-day	(a)	1/(mg/kg-day)	7.0E-08	(a)	mg/kg-day	(a)	mg/kg-day	
				IRON	1.8E+04	mg/kg	3.8E-04	mg/kg-day	NA	1/(mg/kg-day)		1.8E-03	mg/kg-day	NA	mg/kg-day	
				LEAD	2.7E+02	mg/kg	5.6E-06	mg/kg-day	NA	1/(mg/kg-day)		2.6E-05	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	8.6E-06	mg/kg-day	NA	1/(mg/kg-day)		4.0E-05	mg/kg-day	1.4E-05	mg/kg-day	2.8E+00
				MERCURY	6.7E+00	mg/kg	1.4E-07	mg/kg-day	NA	1/(mg/kg-day)		6.6E-07	mg/kg-day	8.6E-05	mg/kg-day	7.7E-03
				NICKEL	9.0E+01	mg/kg	1.9E-06	mg/kg-day	8.4E-01	1/(mg/kg-day)	1.6E-06	8.8E-06	mg/kg-day	NA	mg/kg-day	
				SILVER	5.3E+01	mg/kg	1.1E-06	mg/kg-day	NA	1/(mg/kg-day)		5.2E-06	mg/kg-day	NA	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg	3.2E-08	mg/kg-day	NA	1/(mg/kg-day)		1.5E-07	mg/kg-day	NA	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg	5.0E-07	mg/kg-day	NA	1/(mg/kg-day)		2.4E-06	mg/kg-day	NA	mg/kg-day	
			Exp. Route Total								9.3E-05					3.8E+00
		Exposure Point Total									9.3E-05					3.8E+00
	Exposure Medium Total										9.3E-05					3.8E+00
Surface Soil Total											1.1E-04					4.7E+00
										Total of Receptor Risks Across All Media	1.1E-04				Total of Receptor Hazards Across All Media	4.7E+00

Note:
(a) See Table 7.4a.RME Supplement A for the Intake and Toxicity Values for the MMOA COPCs
(b) Data are not sufficient to determine the dermally absorbed dose for this chemical (RAGS E, 2004)

TABLE 7.5RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		EPC					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	Surface Soil	Incidental	ALUMINUM	9.0E+03	mg/kg	1.1E-04	mg/kg-day	NA	1/(mg/kg-day)		7.6E-03	mg/kg-day	1.0E+00	mg/kg-day	7.6E-03
				AROCLOR 1260	3.1E+00	mg/kg	3.7E-08	mg/kg-day	2.0E+00	1/(mg/kg-day)	7.5E-08	2.6E-06	mg/kg-day	2.0E-05	mg/kg-day	1.3E-01
				ARSENIC	3.0E+01	mg/kg	3.6E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	7.3E-07	2.6E-05	mg/kg-day	3.0E-04	mg/kg-day	8.5E-02
				BENZO(A)PYRENE	1.1E+00	mg/kg	1.3E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	9.8E-08	9.4E-07	mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	2.0E+00	mg/kg	2.4E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.7E-08	1.7E-06	mg/kg-day	NA	mg/kg-day	
				CADMIUM	1.3E+02	mg/kg	1.6E-06	mg/kg-day	NA	1/(mg/kg-day)		1.1E-04	mg/kg-day	1.0E-03	mg/kg-day	1.1E-01
				CHROMIUM VI	1.4E+02	mg/kg	1.7E-06	mg/kg-day	NA	1/(mg/kg-day)		1.2E-04	mg/kg-day	3.0E-03	mg/kg-day	3.9E-02
				DIBENZO(A,H)ANTHRACENE	5.5E+00	mg/kg	6.7E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.9E-07	4.7E-06	mg/kg-day	NA	mg/kg-day	
				DIELDRIN	4.1E-01	mg/kg	5.0E-09	mg/kg-day	1.6E+01	1/(mg/kg-day)	8.0E-08	3.5E-07	mg/kg-day	5.0E-05	mg/kg-day	7.0E-03
				HEXACHLOROBENZENE	4.9E+00	mg/kg	5.9E-08	mg/kg-day	1.6E+00	1/(mg/kg-day)	9.5E-08	4.2E-06	mg/kg-day	8.0E-04	mg/kg-day	5.2E-03
				IRON	2.3E+04	mg/kg	2.7E-04	mg/kg-day	NA	1/(mg/kg-day)		1.9E-02	mg/kg-day	7.0E-01	mg/kg-day	2.7E-02
				LEAD	5.4E+02	mg/kg	6.6E-06	mg/kg-day	NA	1/(mg/kg-day)		4.6E-04	mg/kg-day	NA	mg/kg-day	
				MERCURY	9.2E+00	mg/kg	1.1E-07	mg/kg-day	NA	1/(mg/kg-day)		7.8E-06	mg/kg-day	1.0E-04	mg/kg-day	7.8E-02
			Exp. Route Total								1.6E-06					4.9E-01
			Dermal	ALUMINUM	9.0E+03	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		3.2E-03	mg/kg-day	1.0E+00	mg/kg-day	
				AROCLOR 1260	3.1E+00	mg/kg	1.6E-08	mg/kg-day	2.0E+00	1/(mg/kg-day)	3.1E-08	1.1E-06	mg/kg-day	2.0E-05	mg/kg-day	5.5E-02
				ARSENIC	3.0E+01	mg/kg	3.3E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.9E-08	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	7.7E-03
				BENZO(A)ANTHRACENE		mg/kg	0.0E+00	mg/kg-day	7.3E-01	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				BENZO(A)PYRENE	1.1E+00	mg/kg	5.2E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.8E-08	3.7E-07	mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	2.0E+00	mg/kg	9.3E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.8E-09	6.5E-07	mg/kg-day	NA	mg/kg-day	
				BENZO(K)FLUORANTHENE		mg/kg	0.0E+00	mg/kg-day	7.3E-02	1/(mg/kg-day)			mg/kg-day	NA	mg/kg-day	
				CADMIUM	1.3E+02	mg/kg	4.9E-09	mg/kg-day	NA			4.9E-09	mg/kg-day	2.5E-05	mg/kg-day	1.9E-04
				CHROMIUM VI	1.4E+02	mg/kg	5.0E-09	mg/kg-day	NA			5.0E-09	mg/kg-day	2.9E-05	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	5.5E+00	mg/kg	2.6E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.9E-07	1.8E-06	mg/kg-day	NA	mg/kg-day	
				DIELDRIN	4.1E-01	mg/kg		mg/kg-day	1.6E+01	1/(mg/kg-day)		1.5E-11	mg/kg-day	5.0E-05	mg/kg-day	
				HEXACHLOROBENZENE	4.9E+00	mg/kg		mg/kg-day	1.6E+00	1/(mg/kg-day)		1.8E-10	mg/kg-day	8.0E-04	mg/kg-day	
				IRON	2.3E+04	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		8.2E-07	mg/kg-day	7.0E-01	mg/kg-day	
				LEAD	5.4E+02	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		2.0E-08	mg/kg-day	NA	mg/kg-day	
				MERCURY	9.2E+00	mg/kg		mg/kg-day	NA	1/(mg/kg-day)		3.4E-10	mg/kg-day	1.0E-04	mg/kg-day	
			Exp. Route Total								3.2E-07					6.3E-02
		Exposure Point Total									1.9E-06					5.6E-01
	Exposure Medium Total										1.9E-06					5.6E-01
	Surface Soil	Air	Inhalation of Fugitive Dust	ALUMINUM	8.7E+03	mg/kg	4.5E-09	mg/kg-day	NA	1/(mg/kg-day)		3.2E-07	mg/kg-day	1.4E-03	mg/kg-day	2.2E-04
				ANTIMONY	1.3E+01	mg/kg	6.9E-12	mg/kg-day	NA	1/(mg/kg-day)		4.8E-10	mg/kg-day	NA	mg/kg-day	
				AROCLOR 1260	5.1E+00	mg/kg	2.7E-12	mg/kg-day	2.0E+00	1/(mg/kg-day)	5.3E-12	1.9E-10	mg/kg-day	NA	mg/kg-day	
				ARSENIC	1.7E+01	mg/kg	9.1E-12	mg/kg-day	1.5E+01	1/(mg/kg-day)	1.4E-10	6.3E-10	mg/kg-day	NA	mg/kg-day	
				BARIUM	6.1E+02	mg/kg	3.2E-10	mg/kg-day	NA	1/(mg/kg-day)		2.2E-08	mg/kg-day	NA	mg/kg-day	
				BENZO(A)ANTHRACENE	6.5E+00	mg/kg	3.4E-12	mg/kg-day	3.1E-01	1/(mg/kg-day)	1.0E-12	2.4E-10	mg/kg-day	NA	mg/kg-day	
				BENZO(A)PYRENE	5.9E+00	mg/kg	3.1E-12	mg/kg-day	3.1E+00	1/(mg/kg-day)	9.5E-12	2.1E-10	mg/kg-day	NA	mg/kg-day	
				BENZO(B)FLUORANTHENE	6.5E+00	mg/kg	3.4E-12	mg/kg-day	3.1E-01	1/(mg/kg-day)	1.0E-12	2.4E-10	mg/kg-day	NA	mg/kg-day	
				BENZO(K)FLUORANTHENE	1.6E+00	mg/kg	8.1E-13	mg/kg-day	3.1E-02	1/(mg/kg-day)	2.5E-14	5.7E-11	mg/kg-day	NA	mg/kg-day	
				CADMIUM	9.4E+01	mg/kg	4.9E-11	mg/kg-day	6.3E+00	1/(mg/kg-day)	3.1E-10	3.4E-09	mg/kg-day	5.7E-05	mg/kg-day	6.0E-05

TABLE 7.5RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1 - 8: Bike Trail

GEDDES. NEW YORK

Scenario Timeframe:	Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Route	Chemical of Potential Concern	EPC		EPC					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
				CHROMIUM VI	1.4E+02	mg/kg	7.1E-11	mg/kg-day	4.2E+01	1/(mg/kg-day)	3.0E-09	5.0E-09	mg/kg-day	2.9E-05	mg/kg-day	1.7E-04
				COPPER	1.1E+03	mg/kg	5.5E-10	mg/kg-day	NA	1/(mg/kg-day)		3.9E-08	mg/kg-day	NA	mg/kg-day	
				DIBENZO(A,H)ANTHRACENE	1.8E+00	mg/kg	9.4E-13	mg/kg-day	3.1E+00	1/(mg/kg-day)	2.9E-12	6.5E-11	mg/kg-day	NA	mg/kg-day	
				DIELDRIN	2.4E-01	mg/kg	1.3E-13	mg/kg-day	1.6E+01	1/(mg/kg-day)	2.0E-12	8.9E-12	mg/kg-day	NA	mg/kg-day	
				HEXACHLOROBENZENE	1.7E+00	mg/kg	8.9E-13	mg/kg-day	1.6E+00	1/(mg/kg-day)	1.4E-12	6.2E-11	mg/kg-day	NA	mg/kg-day	
				INDENO(1,2,3-CD)PYRENE	1.3E+00	mg/kg	6.9E-13	mg/kg-day	3.1E-01	1/(mg/kg-day)	2.1E-13	4.8E-11	mg/kg-day	NA	mg/kg-day	
				IRON	1.8E+04	mg/kg	9.4E-09	mg/kg-day	NA	1/(mg/kg-day)		6.6E-07	mg/kg-day	NA	mg/kg-day	
				LEAD	2.7E+02	mg/kg	1.4E-10	mg/kg-day	NA	1/(mg/kg-day)		9.8E-09	mg/kg-day	NA	mg/kg-day	
				MANGANESE	4.1E+02	mg/kg	2.1E-10	mg/kg-day	NA	1/(mg/kg-day)		1.5E-08	mg/kg-day	1.4E-05	mg/kg-day	1.0E-03
				MERCURY	6.7E+00	mg/kg	3.5E-12	mg/kg-day	NA	1/(mg/kg-day)		2.5E-10	mg/kg-day	8.6E-05	mg/kg-day	2.8E-06
				NICKEL	9.0E+01	mg/kg	4.7E-11	mg/kg-day	8.4E-01	1/(mg/kg-day)	3.9E-11	3.3E-09	mg/kg-day	NA	mg/kg-day	
				SILVER	5.3E+01	mg/kg	2.8E-11	mg/kg-day	NA	1/(mg/kg-day)		1.9E-09	mg/kg-day	NA	mg/kg-day	
				THALLIUM	1.5E+00	mg/kg	7.9E-13	mg/kg-day	NA	1/(mg/kg-day)		5.5E-11	mg/kg-day	NA	mg/kg-day	
				VANADIUM	2.4E+01	mg/kg	1.3E-11	mg/kg-day	NA	1/(mg/kg-day)		8.8E-10	mg/kg-day	NA	mg/kg-day	
			Exp. Route Total								3.5E-09					1.5E-03
		Exposure Point Total									3.5E-09					1.5E-03
	Exposure Medium Total										3.5E-09					1.5E-03
Surface Soil Total											1.9E-06					5.6E-01
		Total of Receptor Risks Across All Media									1.9E-06	Total of Receptor Hazards Across All Media				5.6E-01

TABLE 7.1.RME Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Child
Receptor Age:	0-6 yrs.

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-6 yrs			0-2 yrs (ADAF=10)	2-6 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)pyrene		mg/kg				mg/kg/day	7.3E+01	2.2E+01		1/(mg/kg-day)	
			Dermal	Benzo(a)pyrene		mg/kg				mg/kg/day	7.3E+01	2.2E+01		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)pyrene	5.9E+00	mg/kg	1.1E-10	2.0E-10		mg/kg/day	3.1E+01	9.2E+00		1/(mg/kg-day)	5.3E-09

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-6 yrs			0-2 yrs (ADAF=10)	2-6 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)anthracene		mg/kg				mg/kg/day	0.0E+00	0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(a)anthracene		mg/kg				mg/kg/day	0.0E+00	0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)anthracene	6.5E+00	mg/kg	1.2E-10	2.2E-10		mg/kg/day	3.1E+00	9.3E-01	3.1E-01	1/(mg/kg-day)	5.9E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-6 yrs			0-2 yrs (ADAF=10)	2-6 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(b)fluoranthene		mg/kg				mg/kg/day	0.0E+00	0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(b)fluoranthene		mg/kg				mg/kg/day	0.0E+00	0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(b)fluoranthene	6.5E+00	mg/kg	1.2E-10	2.2E-10		mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	5.9E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-6 yrs			0-2 yrs (ADAF=10)	2-6 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(k)fluoranthene		mg/kg				mg/kg/day	0.0E+00	0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(k)fluoranthene		mg/kg				mg/kg/day	0.0E+00	0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(k)fluoranthene	1.6E+00	mg/kg	3.0E-11	5.4E-11		mg/kg/day	3.1E-01	9.2E-02	3.1E-02	1/(mg/kg-day)	1.4E-11

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-6 yrs			0-2 yrs (ADAF=10)	2-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day	7.3E+01	2.2E+01		1/(mg/kg-day)	
			Dermal	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day	7.3E+01	2.2E+01		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Dibenzo(a,h)anthracene	1.8E+00	mg/kg	3.4E-11	6.2E-11		mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	1.6E-09

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-6 yrs	16-30 yrs		0-2 yrs (ADAF=10)	2-6 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day	7.3E+00	2.2E+00		1/(mg/kg-day)	
			Dermal	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day	7.3E+00	2.2E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg	2.5E-11	4.6E-11		mg/kg/day	3.1E+00	9.3E-01		1/(mg/kg-day)	1.2E-10

TABLE 7.2.RME Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, New York

Scenario Timeframe: Future
Receptor Population: Older Child
Receptor Age: 6-12 yrs.

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								6-12 yrs				6-12 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)pyrene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
			Dermal	Benzo(a)pyrene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)pyrene	5.9E+00	mg/kg		2.3E-10		mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	2.2E-09

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								6-12 yrs				6-12 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)anthracene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(a)anthracene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)anthracene	6.5E+00	mg/kg		2.6E-10		mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	2.4E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								6-12 yrs				6-12 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(b)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(b)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(b)fluoranthene	6.5E+00	mg/kg		2.6E-10		mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	2.4E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								6-12 yrs				6-12 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(k)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(k)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(k)fluoranthene	1.6E+00	mg/kg		6.2E-11		mg/kg/day	3.1E-01	9.2E-02	3.1E-02	1/(mg/kg-day)	5.7E-12

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								6-12 yrs				6-12 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
			Dermal	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Dibenzo(a,h)anthracene	1.8E+00	mg/kg		7.1E-11		mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	6.6E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								6-12 yrs				6-12 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day		2.2E+00		1/(mg/kg-day)	
			Dermal	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day		2.2E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg		5.2E-11		mg/kg/day		9.3E-01		1/(mg/kg-day)	4.9E-11

TABLE 7.3a.RME Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Adolescent on trail
Receptor Age:	12-16 yrs

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)pyrene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
			Dermal	Benzo(a)pyrene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)pyrene	5.9E+00	mg/kg		5.1E-11		mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	4.7E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)anthracene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	0.0E+00
			Dermal	Benzo(a)anthracene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)anthracene	6.5E+00	mg/kg		5.6E-11		mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	5.2E-11

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(b)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(b)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(b)fluoranthene	6.5E+00	mg/kg		5.6E-11		mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	5.2E-11

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(k)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
			Dermal	Benzo(k)fluoranthene		mg/kg				mg/kg/day		0.0E+00		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(k)fluoranthene	1.6E+00	mg/kg		1.3E-11		mg/kg/day	3.1E-01	9.2E-02	3.1E-02	1/(mg/kg-day)	1.2E-12

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
			Dermal	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Dibenzo(a,h)anthracene	1.8E+00	mg/kg		1.6E-11		mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	1.4E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
			Dermal	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day		2.2E+01		1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg		1.1E-11		mg/kg/day		9.3E-01		1/(mg/kg-day)	1.1E-11

TABLE 7.3b.RME Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, New York

Scenario Timeframe: Future
Receptor Population: Adolescent off trail
Receptor Age: 12-16 yrs

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)pyrene	5.9E+00	mg/kg		1.7E-07		mg/kg/day		2.2E+01		1/(mg/kg-day)	3.6E-06
			Dermal	Benzo(a)pyrene	5.9E+00	mg/kg		1.1E-07		mg/kg/day		2.2E+01		1/(mg/kg-day)	2.4E-06
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)pyrene	5.9E+00	mg/kg		3.6E-07		mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	3.3E-06

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(a)anthracene	6.5E+00	mg/kg		1.8E-07		mg/kg/day		2.2E+00		1/(mg/kg-day)	4.0E-07
			Dermal	Benzo(a)anthracene	6.5E+00	mg/kg		1.2E-07		mg/kg/day		2.2E+00		1/(mg/kg-day)	2.7E-07
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)anthracene	6.5E+00	mg/kg		4.0E-07		mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	3.7E-07

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(b)fluoranthene	6.5E+00	mg/kg		1.8E-07		mg/kg/day		2.2E+00		1/(mg/kg-day)	4.0E-07
			Dermal	Benzo(b)fluoranthene	6.5E+00	mg/kg		1.2E-07		mg/kg/day		2.2E+00		1/(mg/kg-day)	2.7E-07
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(b)fluoranthene	6.5E+00	mg/kg		4.0E-07		mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	3.7E-07

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Benzo(k)fluoranthene	1.6E+00	mg/kg		4.5E-08		mg/kg/day		2.2E-01		1/(mg/kg-day)	9.9E-09
			Dermal	Benzo(k)fluoranthene	1.6E+00	mg/kg		3.0E-08		mg/kg/day		2.2E-01		1/(mg/kg-day)	6.6E-09
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(k)fluoranthene	1.6E+00	mg/kg		9.6E-08		mg/kg/day	3.1E-01	9.2E-02	3.1E-02	1/(mg/kg-day)	8.8E-09

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Dibenzo(a,h)anthracene	1.8E+00	mg/kg		5.1E-08		mg/kg/day		2.2E+01		1/(mg/kg-day)	1.1E-06
			Dermal	Dibenzo(a,h)anthracene	1.8E+00	mg/kg		3.4E-08		mg/kg/day		2.2E+01		1/(mg/kg-day)	7.4E-07
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Dibenzo(a,h)anthracene	1.8E+00	mg/kg		1.1E-07		mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	1.0E-06

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
								12-16 yrs				12-16 yrs (ADAF=3)			
Soil	Soil	Soil	Ingestion	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg		3.7E-08		mg/kg/day		2.2E+00		1/(mg/kg-day)	8.1E-08
			Dermal	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg		2.5E-08		mg/kg/day		2.2E+00		1/(mg/kg-day)	5.4E-08
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg		8.1E-08		mg/kg/day		9.3E-01		1/(mg/kg-day)	7.5E-08

TABLE 7.4a.RME Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Adult on trail
Receptor Age:	16-30 yrs

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(a)pyrene		mg/kg				mg/kg/day			7.3E+00	1/(mg/kg-day)	
			Dermal	Benzo(a)pyrene		mg/kg				mg/kg/day			7.3E+00	1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)pyrene	5.9E+00	mg/kg			1.4E-10	mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	4.4E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(a)anthracene		mg/kg				mg/kg/day			7.3E-01	1/(mg/kg-day)	
			Dermal	Benzo(a)anthracene		mg/kg				mg/kg/day			7.3E-01	1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)anthracene	6.5E+00	mg/kg			1.6E-10	mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	4.9E-11

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-16 yrs	16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(b)fluoranthene		mg/kg				mg/kg/day			7.3E-01	1/(mg/kg-day)	
			Dermal	Benzo(b)fluoranthene		mg/kg				mg/kg/day			7.3E-01	1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(b)fluoranthene	6.5E+00	mg/kg			1.6E-10	mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	4.8E-11

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(k)fluoranthene		mg/kg				mg/kg/day			7.3E-02	1/(mg/kg-day)	
			Dermal	Benzo(k)fluoranthene		mg/kg				mg/kg/day			7.3E-02	1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(k)fluoranthene	1.6E+00	mg/kg			3.8E-11	mg/kg/day	3.1E-01	9.2E-02	3.1E-02	1/(mg/kg-day)	1.2E-12

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day			7.3E+00	1/(mg/kg-day)	0.0E+00
			Dermal	Dibenzo(a,h)anthracene		mg/kg				mg/kg/day			7.3E+00	1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Dibenzo(a,h)anthracene	1.8E+00	mg/kg			4.4E-11	mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	1.3E-10

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day			7.3E-01	1/(mg/kg-day)	
			Dermal	Indeno(1,2,3-cd)pyrene		mg/kg				mg/kg/day			7.3E-01	1/(mg/kg-day)	
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg			3.2E-11	mg/kg/day	3.1E+00	9.3E-01	3.1E-01	1/(mg/kg-day)	9.9E-12

TABLE 7.4b.RME Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

WASTEBEDS 1-8 SITE: Bike Trail

GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Adult off trail
Receptor Age:	16-30 yrs

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(a)pyrene	5.9E+00	mg/kg			4.5E-07	mg/kg/day			7.3E+00	1/(mg/kg-day)	3.3E-06
			Dermal	Benzo(a)pyrene	5.9E+00	mg/kg			2.3E-07	mg/kg/day			7.3E+00	1/(mg/kg-day)	1.7E-06
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)pyrene	5.9E+00	mg/kg			1.0E-06	mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	3.1E-06

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(a)anthracene	6.5E+00	mg/kg			4.9E-07	mg/kg/day			7.3E-01	1/(mg/kg-day)	3.6E-07
			Dermal	Benzo(a)anthracene	6.5E+00	mg/kg			2.6E-07	mg/kg/day			7.3E-01	1/(mg/kg-day)	1.9E-07
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(a)anthracene	6.5E+00	mg/kg			1.1E-06	mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	3.4E-07

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-16 yrs	16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(b)fluoranthene	6.5E+00	mg/kg			5.0E-07	mg/kg/day			7.3E-01	1/(mg/kg-day)	3.6E-07
			Dermal	Benzo(b)fluoranthene	6.5E+00	mg/kg			2.6E-07	mg/kg/day			7.3E-01	1/(mg/kg-day)	1.9E-07
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(b)fluoranthene	6.5E+00	mg/kg			1.1E-06	mg/kg/day	3.1E+00	9.2E-01	3.1E-01	1/(mg/kg-day)	3.4E-07

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Benzo(k)fluoranthene	1.6E+00	mg/kg			1.2E-07	mg/kg/day			7.3E-02	1/(mg/kg-day)	8.9E-09
			Dermal	Benzo(k)fluoranthene	1.6E+00	mg/kg			6.3E-08	mg/kg/day			7.3E-02	1/(mg/kg-day)	4.6E-09
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Benzo(k)fluoranthene	1.6E+00	mg/kg			2.7E-07	mg/kg/day	3.1E-01	9.2E-02	3.1E-02	1/(mg/kg-day)	8.2E-09

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Dibenzo(a,h)anthracene	1.8E+00	mg/kg			1.4E-07	mg/kg/day			7.3E+00	1/(mg/kg-day)	1.0E-06
			Dermal	Dibenzo(a,h)anthracene	1.8E+00	mg/kg			7.1E-08	mg/kg/day			7.3E+00	1/(mg/kg-day)	5.2E-07
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Dibenzo(a,h)anthracene	1.8E+00	mg/kg			3.1E-07	mg/kg/day	3.1E+01	9.2E+00	3.1E+00	1/(mg/kg-day)	9.5E-07

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
									16-30 yrs				16-30 yrs (ADAF=1)		
Soil	Soil	Soil	Ingestion	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg			9.9E-08	mg/kg/day			7.3E-01	1/(mg/kg-day)	7.2E-08
			Dermal	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg			5.1E-08	mg/kg/day			7.3E-01	1/(mg/kg-day)	3.7E-08
	Ambient Air	Emissions from Soil	Inhalation of fugitive dust	Indeno(1,2,3-cd)pyrene	1.3E+00	mg/kg			2.3E-07	mg/kg/day	3.1E+00	9.3E-01	3.1E-01	1/(mg/kg-day)	7.0E-08

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1 - 8: Bike Trail
GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Biker - On and Off Trail
Receptor Age:	0 - 30 yrs

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Suface Soil	Surface Soil	Surface Soil	ALUMINUM	N/A		N/A			0.03264		N/A	3.3E-02
			ANTIMONY	N/A		N/A			0.0124		N/A	1.2E-02
			AROCLOR 1260	1.0E-06		5.9E-06	6.9E-06	skin/nails	0.113		1.0E+00	1.1E+00
			ARSENIC	1.0E-06		3.3E-06	4.3E-06	skin/nails	0.0253		5.0E-02	7.5E-02
			BARIUM	N/A		N/A		kidney	0.00132		N/A	1.3E-03
			BENZO(A)ANTHRACENE	4.4E-06		4.6E-07			N/A		N/A	
			BENZO(A)PYRENE	3.9E-05		4.1E-06	4.3E-05		N/A		N/A	
			BENZO(B)FLUORANTHENE	7.6E-07		4.6E-07	1.2E-06		N/A		N/A	
			BENZO(K)FLUORANTHENE	1.9E-08		1.1E-08	3.0E-08		N/A		N/A	
			CADMIUM	N/A		N/A		kidney	0.0419		1.1E-01	1.5E-01
			CHROMIUM VI	N/A		N/A		NOAEL	0.01		N/A	1.1E-02
			COPPER	N/A		N/A		GI	0.00036		N/A	3.6E-04
			DIBENZO(A,H)ANTHRACENE	2.1E-06		1.3E-06	3.4E-06		N/A		N/A	
			DIELDRIN	3.9E-07		N/A	3.9E-07	liver	0.00216		N/A	2.2E-03
			HEXACHLOROBENZENE	2.7E-07		N/A	2.7E-07	liver	0.00094		N/A	9.4E-04
			INDENO(1,2,3-CD)PYRENE	1.5E-07		9.1E-08	2.4E-07		N/A		N/A	
			IRON	N/A		N/A		GI	0.0114		N/A	1.1E-02
			LEAD	N/A		N/A			N/A		N/A	
			MANGANESE	N/A		N/A		development	0.00131		N/A	1.3E-03
			MERCURY	N/A		N/A		whole body	0.0299		N/A	3.0E-02
			NICKEL	N/A		N/A		skin	0.00203		N/A	2.0E-03
			SILVER	N/A		N/A			0.00468		N/A	4.7E-03
			THALLIUM	N/A		N/A			0.0101		N/A	1.0E-02
			VANADIUM	N/A		N/A			0.0106		N/A	1.1E-02
			Chemical Total	4.3E-05	0.00E+00	5.9E-06	4.9E-05		3E-01	0E+00	1.2E+00	1.5E+00
		Exposure Point Total					4.9E-05					1.5E+00
		Air	ALUMINUM		N/A					1.1E+00		1.1E+00
			ANTIMONY		N/A					N/A		
			AROCLOR 1260		2.68E-07		2.7E-07			N/A		
			ARSENIC		6.90E-06		6.9E-06			N/A		
			BARIUM		N/A					N/A		
			BENZO(A)ANTHRACENE		1.01E-06		1.0E-06			N/A		
			BENZO(A)PYRENE		6.41E-06		6.4E-06			N/A		
			BENZO(B)FLUORANTHENE		7.11E-07		7.1E-07			N/A		
			BENZO(K)FLUORANTHENE		1.70E-08		1.7E-08			N/A		
			CADMIUM		1.52E-05		1.5E-05			2.9E-01		2.9E-01
			CHROMIUM VI		8.61E-05		8.6E-05	Lung		4.6E-01		4.6E-01
			COPPER		N/A					N/A		

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1 - 8: Bike Trail
GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Biker - On and Off Trail
Receptor Age:	0 - 30 yrs

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
			DIBENZO(A,H)ANTHRACENE		1.95E-06		2.0E-06			N/A		
			DIELDRIN		1.03E-07		1.0E-07			N/A		
			HEXACHLOROBENZENE		7.20E-08		7.2E-08			N/A		
			INDENO(1,2,3-CD)PYRENE		1.45E-07		1.5E-07			N/A		
			IRON		N/A					N/A		
			LEAD		N/A					N/A		
			MANGANESE		N/A			CNS		5.0E+00		5.0E+00
			MERCURY		N/A			CNS		1.4E-02		1.4E-02
			NICKEL		2.01E-06		2.0E-06			N/A		
			SILVER		N/A					N/A		
			THALLIUM		N/A					N/A		
			VANADIUM		N/A					N/A		
			Chemical Total		1.2E-04		1.2E-04			6.8E+00		6.8E+00
		Exposure Point Total					1.2E-04					6.8E+00
	Exposure Medium Total						1.7E-04					8.3E+00
Medium Total							1.7E-04					8.3E+00
Receptor Total							1.7E-04				Receptor HI Total	8.3E+00

Note;

This table is a summary of on-trail exposures from ages 0-6 (Table 7.1.RME), 6-12 (Table 7.2.RME), 12-16 (Table 7.3a.RME), and 16-30 (Table 7.4a.RME) and off-trail exposures from 12-16(Table 7.3b.RME) and 16-30 (Table 7.4b.RME).

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1 - 8: Bike Trail
GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Suface Soil	Surface Soil	Surface Soil	ALUMINUM	N/A		N/A			7.6E-03		N/A	7.6E-03
			AROCLOR 1260	7.5E-08		3.1E-08	1.1E-07	skin/nail	1.3E-01		5.5E-02	1.9E-01
			ARSENIC	7.3E-07		4.9E-08	7.8E-07	skin	8.5E-02		7.7E-03	9.3E-02
			BENZO(A)PYRENE	9.8E-08		3.8E-08	1.4E-07		N/A		N/A	
			BENZO(B)FLUORANTHENE	1.7E-08		6.8E-09	2.4E-08		N/A		N/A	
			CADMIUM	N/A		N/A		kidney	1.1E-01		1.9E-04	1.1E-01
			CHROMIUM VI	N/A		N/A		NOAEL	3.9E-02		N/A	3.9E-02
			DIBENZO(A,H)ANTHRACENE	4.9E-07		1.9E-07	6.8E-07		N/A		N/A	
			DIELDRIN	8.0E-08		N/A	8.0E-08	liver	7.0E-03		N/A	7.0E-03
			HEXACHLOROBENZENE	9.5E-08		N/A	9.5E-08	liver	5.2E-03		N/A	5.2E-03
			IRON	N/A		N/A		GI	2.7E-02		N/A	2.7E-02
			LEAD	N/A		N/A			N/A		N/A	
			MERCURY	N/A		N/A		development	7.8E-02		N/A	7.8E-02
			Chemical Total	1.6E-06		3.1E-07	1.9E-06		4.9E-01		6.3E-02	5.5E-01
		Exposure Point Total					1.9E-06					5.5E-01
		Air	ALUMINUM							2.2E-04		2.2E-04
			ANTIMONY							N/A		
			AROCLOR 1260		5.32E-12		5.3E-12			N/A		
			ARSENIC		1.36E-10		1.4E-10			N/A		
			BARIUM							N/A		
			BENZO(A)ANTHRACENE		1.05E-12		1.0E-12			N/A		
			BENZO(A)PYRENE		9.49E-12		9.5E-12			N/A		
			BENZO(B)FLUORANTHENE		1.04E-12		1.0E-12			N/A		
			BENZO(K)FLUORANTHENE		2.52E-14		2.5E-14			N/A		
			CADMIUM		3.08E-10		3.1E-10	lung		6.0E-05		6.0E-05
			CHROMIUM VI		2.99E-09		3.0E-09	lung		1.7E-04		1.7E-04
			COPPER							N/A		
			DIBENZO(A,H)ANTHRACENE		2.90E-12		2.9E-12			N/A		
			DIELDRIN		2.03E-12		2.0E-12			N/A		
			HEXACHLOROBENZENE		1.42E-12		1.4E-12			N/A		
			INDENO(1,2,3-CD)PYRENE		2.13E-13		2.1E-13			N/A		
			IRON							N/A		
			LEAD							N/A		
			MANGANESE					CNS		1.0E-03		1.0E-03
			MERCURY					CNS		2.8E-06		2.8E-06
			NICKEL		3.93E-11		3.9E-11			N/A		
			SILVER							N/A		
			THALLIUM							N/A		

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURE
WASTEBEDS 1 - 8: Bike Trail
GEDDES, New York

Scenario Timeframe:	Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
			VANADIUM							N/A		
			Chemical Total		3.5E-09		3.5E-09			1.5E-03		1.5E-03
		Exposure Point Total					3.5E-09					1.5E-03
	Exposure Medium Total						1.9E-06					5.5E-01
Medium Total							1.9E-06					5.5E-01
Receptor Total							1.9E-06				Receptor HI Total	5.5E-01