GSI Job No.: 5316
Issued: 11 June 2021

WORK PLAN FOR BASELINE HUMAN HEALTH RISK ASSESSMENT

McCAFFREY STREET SITE
(Site No. 442046, USEPA ID# NYD004986741)

APPENDICES

Appendix A: Project Database Information

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APPENDIX A

APPENDIX A: **Project Database Information**

Table A1: **Database Descriptors**

GSI ENVIRONMENTAL

TABLE A1
Database Descriptors
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Column name	Description
analyte	Analyte code
analyte_name	Full name of the analyte
cas_rn	CAS registry number for the analyte
casrn	CAS registry number for the analyte, without dashes
chem_class	Chemical class
coll_depth_units	Units for sample collection depths
coll_gear	Sample collection gear
coll_lower_depth	Lower depth of the collection
coll_upper_depth	Upper depth of the collection
concentration	Concentration value
depth_units	Units for sample depths
duplicate_yn	A flag generated during the data export process to aid in identifying sample duplicates. It is set to True when the *sample_no* and the *sample_id* are different
hh_eval_category	Human Health Evaluation Category
lab	Code identifying the laboratory performing analyses
lab_rep	Laboratory sample replicate identifier
labsample	Laboratory sample identifier
location_id	Location identifier
loc_desc	Location description
loc_type	Location type (e.g., well, sediment sampling location)
lower_depth	Lower depth of the sample
material	Material code; this is a generalization of the sample material
material_analyzed	Material analyzed by the laboratory
meas_basis	Measurement basis
method_code	Analysis method code
qualifiers	Qualifier code(s) for an analytical result
sampcoll_id	Sample collection identifier. Multiple samples may have the same collection identifier if they were collected together.
samp_desc	Description of the interpretive sample.
sample_date	Date (and time) that the sample was collected
sample_id	Interpretive sample identifier for natural samples. This is ordinarily used to identify material from a unique location, date(/time), and depth. Interpretive samples may be split to produce QC duplicates.
sample_material	A code for the most detailed or specific possible description of the sample material.
sample_no	Analytical sample identifier, to distinguish multiple splits (QC duplicates) of an interpretive sample
sig_figs	Significant figures for the concentration
srid	Spatial reference system identifier
study_id	Study identifier
study_loc_desc	Study location description
study_loc_id	Study-specific location identifier
study_loc_site	Study location site
undetected	The result is qualified as undetected
units	The units for the analytical result
upper_depth	Upper depth of the sample.
x_coord	X coordinate in the coordinate system specified by the *srid* value
y_coord	Y coordinate in the coordinate system specified by the *srid* value

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APPENDIX B

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Table B2.1: Current and Future Residential Soil

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Table B2.3: Current and Future Residential Groundwater

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GSI ENVIRONMENTAL

TABLE B1.1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 2 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
Soil - McCaffery St. Project Area, Off-Site	PFAS																			
	375-22-4	Heptafluorobutanoic acid	0.002 U	0.003 U	mg/kg	MC-MW-42	13	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid	0.002 U	0.003 U	mg/kg	MC-MW-42	13	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid	0.002 U	0.003 U	mg/kg	MC-MW-42	12	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	375-73-5	Perfluorobutanesulfonic acid	0.00049 U	0.003 U	mg/kg	MC-MW-20	94	0	0%	0.00049	0.003	0.003	NV	NV	1.9	NC			N	E
	335-77-3	Perfluorodecane sulfonic acid	0.00099 U	0.0015 U	mg/kg	MC-MW-42	13	0	0%	0.00099	0.0015	0.0015	NV	NV	NV	NV			Y	D
	335-76-2	Perfluorodecanoic acid	0.00024 J	0.0016	mg/kg	MC-PZ-07	94	32	35%	0.00044	0.0011	0.0016	NV	NV	NV	NV			Y	D
	307-55-1	Perfluorododecanoic acid	0.00023 J	0.0029	mg/kg	MC-SED-05	94	12	13%	0.00049	0.0015	0.0029	NV	NV	NV	NV			Y	D
	375-92-8	Perfluoroheptane sulfonate	0.0006 U	0.00091 U	mg/kg	MC-MW-42	13	0	0%	0.0006	0.00091	0.00091	NV	NV	NV	NV			Y	D
	375-85-9	Perfluoroheptanoic acid	0.00027 J	0.002	mg/kg	MC-PZ-03	94	10	11%	0.00049	0.0011	0.002	NV	NV	NV	NV			Y	D
	355-46-4	Perfluorohexane sulfonic acid	0.00049 U	0.003 U	mg/kg	MC-MW-20	94	0	0%	0.00049	0.003	0.003	NV	NV	NV	NV			Y	D
	307-24-4	Perfluorohexanoic acid	0.00013 J	0.0014	mg/kg	MC-MW-21	94	29	31%	0.00033	0.0011	0.0014	NV	NV	NV	NV			Y	D
	375-95-1	Perfluorononanoic acid	0.000086 J	0.0011 U	mg/kg	MC-PZ-03	94	37	40%	0.00033	0.0011	0.0011	NV	NV	NV	NV			Y	D
	754-91-6	Perfluorooctane sulfonamide	0.0006 U	0.00091 U	mg/kg	MC-MW-42	13	0	0%	0.0006	0.00091	0.00091	NV	NV	NV	NV			Y	D
	1763-23-1	Perfluorooctanesulfonic acid	0.00032 J	0.003 U	mg/kg	MC-MW-20	94	59	63%	0.00074	0.003	0.003	NV	NV	0.00066	NC			Y	A
	335-67-1	Perfluorooctanoic acid	0.00019 J	0.01	mg/kg	MC-MW-21	94	87	93%	0.00054	0.00068	0.01	NV	NV	0.00088	NC			Y	A
	2706-90-3	Perfluoropentanoic acid	0.0006 U	0.00091 U	mg/kg	MC-MW-42	13	0	0%	0.0006	0.00091	0.00091	NV	NV	NV	NV			Y	D
	376-06-7	Perfluorotetradecanoic acid	0.00019 J	0.0016	mg/kg	MC-SED-05	94	4	5%	0.00049	0.0015	0.0016	NV	NV	NV	NV			Y	D
	72629-94-8	Perfluorotridecanoic acid	0.00019 J	0.0023 U	mg/kg	MC-MW-20	94	5	6%	0.00049	0.0023	0.0023	NV	NV	NV	NV			Y	D
	2058-94-8	Perfluoroundecanoic acid	0.00025 J	0.0012	mg/kg	MC-PZ-07	94	17	19%	0.00049	0.00097	0.0012	NV	NV	NV	NV			Y	D
	39108-34-4	Sodium 1H,1H,2H,2H-perfluordecane sulfonate (8:2)	0.002 U	0.003 U	mg/kg	MC-MW-42	13	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	27619-97-2	Sodium 1h,1h,2h,2h-perfluorooctane sulfonate (6:2)	0.002 U	0.003 U	mg/kg	MC-MW-42	13	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	Metals																			
	7429-90-5	Aluminum	2300	26700	mg/kg	MC-SB-02	89	89	100%	NV	NV	26700	17000	14400	7700	NC			Y	A
	7440-36-0	Antimony	0.115 J	2.01 J	mg/kg	MC-PZ-02	89	82	93%	0.301	0.458	2.01	<2.7	NV	3.1	NC			N	E
	7440-38-2	Arsenic	2.12	34.7 J	mg/kg	MC-SB-02	89	89	100%	NV	NV	34.7	14	14.1	0.68	C	16	SCO-b	Y	A, G
	7440-39-3	Barium	16.7	178	mg/kg	MC-SB-02	89	89	100%	NV	NV	178	312	188	1500	NC	350	SCO-b	N	E
	7440-41-7	Beryllium	0.168 J	1.14	mg/kg	MC-MW-40	89	89	100%	NV	NV	1.14	1.1	1.3	16	NC	14	SCO	N	E
	7440-43-9	Cadmium	0.0509 J	3.32 J	mg/kg	MC-SB-02	89	88	99%	0.189	0.189	3.32	2.7	2.3	7.1	NC	2.5	SCO-b	Y	G
	7440-70-2	Calcium	349	191000	mg/kg	MC-MW-36	89	89	100%	NV	NV	191000	46400	56500	NV	NV			N	F
	7440-47-3	Chromium	5.87	83.6	mg/kg	MC-SS-15	89	89	100%	NV	NV	83.6	22	17.5	0.3	NC	36	SCO	Y	A, G
	7440-48-4	Cobalt	2.46	23 J	mg/kg	MC-SB-01	89	89	100%	NV	NV	23	14.8	24.1	2.3	NC	30	SSCO	Y	A
	7440-50-8	Copper	5.24 J	125 J	mg/kg	MC-MW-35	89	89	100%	NV	NV	125	61	29.6	310	NC	270	SCO	N	E
	7439-89-6	Iron	7040	44900	mg/kg	MC-SB-02	89	89	100%	NV	NV	44900	27600	25700	5500	NC	2000	SSCO	Y	A, G
	7439-92-1	Lead	5.75	228	mg/kg	MC-MW-34	89	89	100%	NV	NV	228	75	133	200	NC	400	SCO	Y	A
	7439-95-4	Magnesium	2590	51500	mg/kg	MC-MW-32	89	89	100%	NV	NV	51500	7790	31400	NV	NV			N	F
	7439-96-5	Manganese	124	1360	mg/kg	MC-PZ-08	89	89	100%	NV	NV	1360	1760	1560	180	NC	2000	SCO-b	Y	B
	7439-97-6	Mercury	0.0129 J	0.746	mg/kg	MC-SS-15	89	86	97%	0.103	0.144	0.746	0.27	0.28	1.1	NC	0.81	SCO-b	N	E
	7440-02-0	Nickel	6.15 J	43.9 J	mg/kg	MC-SB-02	89	89	100%	NV	NV	43.9	26	29.5	150	NC			N	E
	7440-09-7	Potassium	439	3770 J	mg/kg	MC-SB-02	89	89	100%	NV	NV	3770	2180	1660	NV	NV			N	F
	7782-49-2	Selenium	0.11 J	1.02 J	mg/kg	MC-SB-02	89	84	95%	0.317	0.691	1.02	5.7	4.4	39	NC	36	SCO	N	E
	7440-22-4	Silver	0.0252 J	0.926	mg/kg	MC-SS-16	89	84	95%	0.0876	0.207	0.926	1.3	0.4	39	NC	36	SCO	N	E
	7440-23-5	Sodium	26.7 J	1280	mg/kg	MC-MW-37	89	84	95%	202	229	1280	269	806	NV	NV			N	F
	7440-28-0	Thallium	0.0264 J	0.256 J	mg/kg	MC-SB-01	89	89	100%	NV	NV	0.256	NV	NV	0.078	NC			Y	A
	7440-62-2	Vanadium	8.72 J	33.1	mg/kg	MC-MW-40	89	89	100%	NV	NV	33.1	38	25.9	39	NC	100	SSCO	N	E
	7440-66-6	Zinc	27	284	mg/kg	MC-MW-34	89	89	100%	NV	NV	284	180	109	2300	NC	2200	SCO	N	E
	PAH																			
	92-52-4	1,1"-Biphenyl	0.022 J	0.87 U	mg/kg	MC-MW-27	89	2	3%	0.034	0.87	0.87	NV	NV	4.7	NC			N	E
	91-57-6	2-Methylnaphthalene	0.004 J	0.44 U	mg/kg	MC-MW-27	89	62	70%	0.018	0.44	0.44	<0.0027	NV	24	NC	0.41	SSCO	Y	G
	88-74-4	2-Nitroaniline	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	63	NC			N	E
	99-09-2	3-Nitroaniline	0.12 J	4.3 U	mg/kg	MC-MW-27	89	2	3%	0.17	4.3	4.3	NV	NV	0.05	NC			Y	C
	100-01-6	4-Nitroaniline	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	25	NC			N	E
	83-32-9	Acenaphthene	0.004 J	1.7	mg/kg	MC-PZ-06	89	32	36%	0.018	0.44	1.7	<0.035	0.15	360	NC	100	SCO	N	E
	208-96-8	Acenaphthylene	0.004 J	5.8	mg/kg	MC-MW-20	87	74	86%	0.018	0.44	5.8	0.11	0.5	10	NC	100	SCO	N	E
	120-12-7	Anthracene	0.004 J	4.7	mg/kg	MC-MW-20	89	67	76%	0.018	0.44	4.7	0.12	0.62	1800	NC	100	SCO	N	E
	56-55-3	Benzo[a]anthracene	0.005 J	18	mg/kg	MC-MW-20	89	82	93%	0.018	0.44	1.8	0.5	2.9	0.11	C	1	SCO-b	Y	H
	50-32-8	Benzo[a]pyrene	0.004 J	11	mg/kg	MC-MW-20	89	85	96%	0.02	0.44	11	0.47	2.4	0.11	C	1	SCO-b	Y	H
	205-99-2	Benzo[b]fluoranthene	0.004 J	24	mg/kg	MC-MW-20	89	87	98%	0.02	0.02	2.4	0.59	3.3	0.11	C	1	SCO-b	Y	H
	191-24-2	Benzo[g,h,i]perylene	0.006 J	6.1	mg/kg	MC-MW-20	89	83	94%	0.018	0.021	6.1	0.2	0.63	10	NC	100	SCO	N	E
	207-08-9	Benzo[k]fluoranthene	0.005 J	8.7	mg/kg	MC-MW-20	89	78	88%	0.018	0.44	0.87	0.33	1.5	0.11	C	0.8	SCO-b	Y	H
	218-01-9	Chrysene	0.004 J	19	mg/kg	MC-MW-20	89	87	98%	0.02	0.02	0.019	0.61	1.3	0.11	C	1	SCO	Y	H
	53-70-3	Dibenzo[a,h]anthracene	0.004 J	2.7	mg/kg	MC-MW-20	89	60	68%	0.018	0.44	2.7	<0.046	NV	0.11	C	0.33	SCO	Y	H
	132-64-9	Dibenzofuran	0.025 J	1.4	mg/kg	MC-PZ-06	89	7	8%	0.034	0.87	1.4	0.053	0.18	7.8	NC	14	SCO	N	E
	206-44-0	Fluoranthene	0.004 J	41	mg/kg	MC-MW-20	89	86	97%	0.02	0.44	41	1.2	7.4	240	NC	100	SCO	N	E
	86-73-7	Fluorene	0.004 J	2	mg/kg	MC-PZ-06	89	42	48%	0.018	0.44	2	0.087	0.58	240	NC	100	SCO	N	E
	193-39-5	Indeno[1,2,3-cd]pyrene	0.006 J	6.9	mg/kg	MC-MW-20	89	79	89%	0.018	0.44	0.69	0.18	0.66	0.11	C	0.5	SCO-b	Y	H

GSI ENVIRONMENTAL

TABLE B1.1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 2 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	91-20-3	Naphthalene	0.004 J	1.1	mg/kg	MC-PZ-06	89	68	77%	0.018	0.44	1.1	0.024	0.017	0.11	C	100	SCO	Y	A
	85-01-8	Phenanthrene	0.005 J	17	mg/kg	MC-PZ-06	89	85	96%	0.018	0.44	17	0.77	8.5	10	NC	100	SCO	Y	A
	129-00-0	Pyrene	0.004 J	36	mg/kg	MC-MW-20	89	87	98%	0.02	0.02	36	1.1	8.7	180	NC	100	SCO	N	E
		Total B(a)P Equivalents (3)	0.004 J	19.5	mg/kg	MC-MW-20	89	87	98%	0.018	0.44	19.5	0.652	3.135	0.11	C			Y	A
	PCBs																			
	12674-11-2	Aroclor 1016	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	89	0	0%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	11104-28-2	Aroclor 1221	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	89	0	0%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	11141-16-5	Aroclor 1232	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	89	0	0%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	53469-21-9	Aroclor 1242	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	89	1	2%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	12672-29-6	Aroclor 1248	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	89	0	0%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	11097-69-1	Aroclor 1254	0.0087 J	0.028 U	mg/kg	MC-PZ-03	89	8	9%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	11096-82-5	Aroclor 1260	0.0094 J	0.055	mg/kg	MC-MW-10	89	13	15%	0.017	0.028	0.055		0.032	0.12	NC			N	E
	37324-23-5	Aroclor 1262	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	89	0	0%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	11100-14-4	Aroclor 1268	0.0082 J	0.028 U	mg/kg	MC-PZ-03	89	2	3%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	1336-36-3	Total PCB Aroclors (4)	0.0082 J	0.055	mg/kg	MC-MW-10	89	22	25%	0.017	0.028	0.055	NV	NV	0.23	C	1	SCO	N	E
	Pesticides																			
	72-54-8	4,4"-DDD	0.00039 J	0.019 U	mg/kg	MC-MW-40	89	11	13%	0.0018	0.019	0.019	<0.0049	NV	0.19	NC	2.6	SCO	N	E
	72-55-9	4,4"-DDE	0.00043 J	0.019 U	mg/kg	MC-MW-40	89	32	36%	0.0018	0.019	0.019	NV	NV	2	C	1.8	SCO	N	E
	50-29-3	4,4"-DDT	0.00044 J	0.059	mg/kg	MC-MW-34	89	51	58%	0.0018	0.019	0.059	NV	NV	1.9	C	1.7	SCO	N	E
	309-00-2	Aldrin	0.00028 J	0.0087 U	mg/kg	MC-MW-27	89	3	4%	0.00085	0.0087	0.0087	NV	NV	0.039	C	0.019	SCO	N	E
	319-84-6	alpha-Benzenehexachloride	0.00024 J	0.0094 U	mg/kg	MC-MW-40	89	13	15%	0.00085	0.0094	0.0094	NV	NV	0.086	C	0.097	SCO	N	E
	1912-24-9	Atrazine	0.17 U	5.1 U	mg/kg	MC-MW-40	89	0	0%	0.17	5.1	5.1	NV	NV	2.4	C			Y	C
	319-85-7	beta-Benzenehexachloride	0.001 U	0.011 U	mg/kg	MC-MW-40	88	7	8%	0.001	0.011	0.011	NV	NV	0.3	C	0.072	SCO	N	E
	86-74-8	Carbazole	0.021 J	2.1	mg/kg	MC-PZ-06	89	18	21%	0.034	0.87	2.1	NV	NV	NV	NV			Y	D
	5103-71-9	cis-Chlordane	0.00023 J	0.0094 U	mg/kg	MC-MW-40	89	14	16%	0.00085	0.0094	0.0094	<0.007	NV	3.6	NC	0.91	SCO	N	E
	319-86-8	delta-Benzenehexachloride	0.00093 U	0.011 U	mg/kg	MC-MW-40	88	3	4%	0.00093	0.011	0.011	NV	NV	18	NC	100	SCO	N	E
	60-57-1	Dieldrin	0.00037 J	0.019 U	mg/kg	MC-MW-40	89	6	7%	0.0017	0.019	0.019	NV	NV	0.034	C	0.039	SCO	N	E
	959-98-8	Endosulfan I	0.00033 J	0.0094 U	mg/kg	MC-MW-40	88	3	4%	0.00085	0.0094	0.0094	<0.007	NV	47	NC	4.8	SCO	N	E
	33213-65-9	Endosulfan II	0.00056 J	0.026 U	mg/kg	MC-MW-40	89	2	3%	0.0017	0.026	0.026	NV	NV	47	NC	4.8	SCO	N	E
	1031-07-8	Endosulfan sulfate	0.00039 J	0.021 U	mg/kg	MC-MW-20	89	4	5%	0.0017	0.021	0.021	NV	NV	38	NC	4.8	SCO	N	E
	72-20-8	Endrin	0.00043 J	0.019 U	mg/kg	MC-MW-40	89	9	11%	0.0017	0.019	0.019	NV	NV	1.9	NC	2.2	SCO	N	E
	7421-93-4	Endrin aldehyde	0.0006 J	0.019 U	mg/kg	MC-MW-40	88	5	6%	0.0017	0.019	0.019	NV	NV	NV	NV			Y	D
	53494-70-5	Endrin ketone	0.0019 U	0.023 U	mg/kg	MC-MW-40	88	0	0%	0.0019	0.023	0.023	NV	NV	NV	NV			Y	D
	58-89-9	gamma-Benzenehexachloride	0.00025 J	0.0094 U	mg/kg	MC-MW-40	89	7	8%	0.00085	0.0094	0.0094	NV	NV	0.57	C	0.28	SCO	N	E
	76-44-8	Heptachlor	0.00024 J	0.022 U	mg/kg	MC-PZ-05	89	25	29%	0.00085	0.022	0.022	NV	NV	0.13	C	0.42	SCO	N	E
	1024-57-3	Heptachlor epoxide	0.00022 J	0.0087 U	mg/kg	MC-MW-27	89	9	11%	0.00085	0.0087	0.0087	<0.0058	NV	0.07	C	0.077	SSCO	N	E
	72-43-5	Methoxychlor	0.0022 J	0.076 U	mg/kg	MC-MW-40	89	1	2%	0.0069	0.076	0.076	NV	NV	32	NC	100	SSCO	N	E
	8001-35-2	Toxaphene	0.034 U	0.37 U	mg/kg	MC-MW-40	89	0	0%	0.034	0.37	0.37	NV	NV	0.49	C			N	E
	5103-74-2	trans-Chlordane	0.00036 J	0.0094 U	mg/kg	MC-MW-40	88	7	8%	0.00085	0.0094	0.0094	<0.007	NV	3.6	NC	0.54	SSCO	N	E
	Phenols																			
	58-90-2	2,3,4,6-Tetrachlorophenol	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	190	NC			N	E
	95-95-4	2,4,5-Trichlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	630	NC	100	SSCO	N	E
	88-06-2	2,4,6-Trichlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	6.3	NC			N	E
	120-83-2	2,4-Dichlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	19	NC	100	SSCO	N	E
	95-57-8	2-Chlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	39	NC	100	SSCO	N	E
	87-86-5	Pentachlorophenol	0.18 UJ	4.4 U	mg/kg	MC-MW-27	89	0	0%	0.18	4.4	4.4	NV	NV	1	C	2.4	SCO	Y	C, G
	Semi-Volatiles																			
	120-82-1	1,2,4-Trichlorobenzene	0.004 U	0.47 U	mg/kg	MC-MW-39	91	0	0%	0.004	0.47	0.47	NV	NV	5.8	NC			N	E
	95-50-1	1,2-Dichlorobenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	180	NC	100	SCO	N	E
	541-73-1	1,3-Dichlorobenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	1.7	NC	17	SCO	N	E
	106-46-7	1,4-Dichlorobenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	2.6	C	9.8	SCO	N	E
	105-67-9	2,4-Dimethylphenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	1	2%	0.034	0.87	0.87	NV	NV	130	NC			N	E
	51-28-5	2,4-Dinitrophenol	1 U	26 U	mg/kg	MC-MW-27	89	0	0%	1	26	26	NV	NV	13	NC	100	SSCO	Y	C
	121-14-2	2,4-Dinitrotoluene	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	1.7	C			Y	C
	606-20-2	2,6-Dinitrotoluene	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	0.36	C	1.03	SSCO	Y	C
	91-58-7	2-Chloronaphthalene	0.034 U	0.86 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.86	0.86	NV	NV	480	NC			N	E
	95-48-7	2-Methylphenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	1	2%	0.034	0.87	0.87	<0.99	NV	320	NC	100	SCO	N	E
	88-75-5	2-Nitrophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	NV	NV			Y	D
	91-94-1	3,3"-Dichlorobenzidine	0.34 U	8.7 U	mg/kg	MC-MW-27	87	0	0%	0.34	8.7	8.7	NV	NV	1.2	C			Y	C
	534-52-1	4,6-Dinitro-2-methylphenol	0.52 U	13 U	mg/kg	MC-MW-27	89	0	0%	0.52	13	13	NV	NV	0.51	NC			Y	C
	101-55-3	4-Bromophenyl-phenylether	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	NV	NV			Y	D
	59-50-7	4-Chloro-3-methylphenol	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	630	NC			N	E
	106-47-8	4-Chloroaniline	0.069 U	1.9 U	mg/kg	Multiple Locations	89	0	0%	0.069	1.9	1.9	NV	NV	2.7	C	100	SSCO	N	E
	7005-72-3	4-Chlorophenyl-phenyl ether	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	NV	NV			Y	D
	106-44-5	4-Methylphenol	0.028 J	0.87 U	mg/kg	MC-MW-27	89	3	4%	0.034	0.87	0.87	NV	NV	630	NC	34	SCO	N	E
	100-02-7	4-Nitrophenol	0.52 U	13 U	mg/kg	MC-MW-27	89	0	0%	0.52	13	13	NV	NV	NV	NV			Y	D
	98-86-2	Acetophenone	0.03 J	0.87 U	mg/kg	MC-MW-27	89	5	6%	0.034	0.87	0.87	NV	NV	780	NC			N	E

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TABLE B1.1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 2 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	100-52-7	Benzaldehyde	0.091 J	18 J	mg/kg	MC-MW-20	89	20	23%	0.17	4.3	18	NV	NV	170	C			N	E
	85-68-7	Benzyl n-butyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	290	C	100	SSCO	N	E
	111-91-1	bis(2-Chloroethoxy)methane	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	19	NC			N	E
	111-44-4	Bis(2-chloroethyl)ether	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	0.23	C			Y	C
	117-81-7	bis(2-Ethylhexyl)phthalate	0.13 J	5.1	mg/kg	MC-MW-20	89	4	5%	0.18	4.4	5.1	NV	NV	39	C	50	SSCO	N	E
	105-60-2	Caprolactam	0.083 J	4.3 U	mg/kg	MC-MW-27	89	1	2%	0.17	4.3	4.3	NV	NV	3100	NC			N	E
	84-66-2	Diethyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	5100	NC			N	E
	131-11-3	Dimethyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	NV	NV	100	SSCO	Y	D
	84-74-2	Di-n-butyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	630	NC	100	SSCO	N	E
	117-84-0	Di-n-octylphthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	63	NC	100	SSCO	N	E
	118-74-1	Hexachlorobenzene	0.008 J	0.44 U	mg/kg	MC-MW-27	89	1	2%	0.018	0.44	0.44	NV	NV	0.21	C	0.33	SCO	Y	C, G
	87-68-3	Hexachlorobutadiene	0.034 U	0.9 U	mg/kg	MC-MW-40	89	0	0%	0.034	0.9	0.9	NV	NV	1.2	C			N	E
	77-47-4	Hexachlorocyclopentadiene	0.52 U	13 U	mg/kg	MC-MW-27	85	0	0%	0.52	13	13	NV	NV	0.18	NC			Y	C
	67-72-1	Hexachloroethane	0.17 U	4.3 U	mg/kg	MC-MW-27	89	0	0%	0.17	4.3	4.3	NV	NV	1.8	C			Y	C
	78-59-1	Isophorone	0.027 J	0.87 U	mg/kg	MC-MW-27	89	1	2%	0.034	0.87	0.87	NV	NV	570	C	100	SSCO	N	E
	98-95-3	Nitrobenzene	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	5.1	C	3.7	SSCO	N	E
	621-64-7	N-Nitrosodi-n-propylamine	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	0.078	C			Y	C
	86-30-6	N-Nitrosodiphenylamine	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	110	C			N	E
	108-95-2	Phenol	0.021 J	0.87 U	mg/kg	MC-MW-27	89	7	8%	0.034	0.87	0.87	NV	NV	1900	NC	100	SCO	N	E
	Volatiles																			
	71-55-6	1,1,1-Trichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	810	NC	100	SCO	N	E
	79-34-5	1,1,2,2-Tetrachloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.6	C	35	SSCO	N	E
	79-00-5	1,1,2-Trichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.15	NC			Y	C
	75-34-3	1,1-Dichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	3.6	C	19	SCO	N	E
	75-35-4	1,1-Dichloroethene	0.004 U	0.35 UJ	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	23	NC	100	SCO	N	E
	87-61-6	1,2,3-Trichlorobenzene	0.004 U	0.47 U	mg/kg	MC-MW-39	91	0	0%	0.004	0.47	0.47	NV	NV	6.3	NC			N	E
	95-94-3	1,2,4,5-Tetrachlorobenzene	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	2.3	NC			N	E
	96-12-8	1,2-Dibromo-3-chloropropane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.0053	C			Y	C
	106-93-4	1,2-Dibromoethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.036	C			Y	C
	107-06-2	1,2-Dichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.46	C	2.3	SCO	N	E
	78-87-5	1,2-Dichloropropane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	1.6	NC			N	E
	123-91-1	1,4-Dioxane	0.34 U	8.7 U	mg/kg	MC-MW-27	89	0	0%	0.34	8.7	8.7	NV	NV	5.3	C	9.8	SCO	Y	C
	78-93-3	2-Butanone	0.008 U	0.7 U	mg/kg	MC-SS-16	91	4	5%	0.008	0.7	0.7	NV	NV	2700	NC	100	SCO	N	E
	591-78-6	2-Hexanone	0.008 U	0.7 U	mg/kg	MC-SS-16	91	0	0%	0.008	0.7	0.7	NV	NV	20	NC			N	E
	108-10-1	4-Methyl-2-pentanone	0.008 U	0.7 U	mg/kg	MC-SS-16	91	0	0%	0.008	0.7	0.7	NV	NV	3300	NC			N	E
	67-64-1	Acetone	0.006 J	1.4 U	mg/kg	MC-SS-16	91	17	19%	0.016	1.4	1.4	NV	NV	6100	NC	100	SCO	N	E
	71-43-2	Benzene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	1.2	C	2.9	SCO	N	E
	39638-32-9	Bis(2-chloroisopropyl) ether	0.034 U	0.87 U	mg/kg	MC-MW-27	89	0	0%	0.034	0.87	0.87	NV	NV	NV	NV			Y	D
	74-97-5	Bromochloromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	15	NC			N	E
	75-27-4	Bromodichloromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.29	C			Y	C
	75-25-2	Bromoform	0.004 U	0.47 U	mg/kg	MC-MW-39	91	0	0%	0.004	0.47	0.47	NV	NV	19	C			N	E
	74-83-9	Bromomethane	0.004 U	0.35 UJ	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.68	NC			N	E
	75-15-0	Carbon disulfide	0.002 J	0.35 UJ	mg/kg	MC-SS-16	91	2	3%	0.004	0.35	0.35	NV	NV	77	NC	100	SSCO	N	E
	56-23-5	Carbon Tetrachloride	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.65	C	1.4	SCO	N	E
	108-90-7	Chlorobenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	28	NC	100	SCO	N	E
	75-00-3	Chloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	1400	NC			N	E
	67-66-3	Chloroform	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.32	C	10	SCO	Y	C
	74-87-3	Chloromethane	0.004 U	0.35 UJ	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	11	NC			N	E
	156-59-2	cis-1,2-Dichloroethene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	16	NC	59	SCO	N	E
	10061-01-5	cis-1,3-Dichloropropene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	1.8	C			N	E
	110-82-7	Cyclohexane	0.004 U	0.35 UJ	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	650	NC			N	E
	124-48-1	Dibromochloromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	8.3	C			N	E
	75-71-8	Dichlorodifluoromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	8.7	NC			N	E
	100-41-4	Ethylbenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	5.8	C	30	SCO	N	E
	98-82-8	Isopropylbenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	1	2%	0.004	0.35	0.35	NV	NV	190	NC	100	SSCO	N	E
	179601-23-1	m,p-Xylene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	0.0024	0.0068	55	NC			N	E
	79-20-9	Methyl acetate	0.002 J	3.4 J	mg/kg	MC-SS-16	91	8	9%	0.004	0.01	3.4	NV	NV	7800	NC			N	E
	1634-04-4	Methyl tert-butyl ether	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	47	C	62	SCO	N	E
	108-87-2	Methylcyclohexane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	650	NC			N	E
	75-09-2	Methylene Chloride	0.003 J	0.35 U	mg/kg	MC-SS-16	91	2	3%	0.004	0.35	0.35	NV	NV	35	NC	51	SCO	N	E
	95-47-6	o-Xylene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	65	NC			N	E
	100-42-5	Styrene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	600	NC			N	E
	127-18-4	Tetrachloroethene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	8.1	NC	5.5	SCO	N	E
	108-88-3	Toluene	0.0009 J	0.35 U	mg/kg	MC-SS-16	91	1	2%	0.004	0.35	0.35	<0.0012	NV	490	NC	100	SCO	N	E
	156-60-5	trans-1,2-Dichloroethene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	7	NC	0.19	SCO	Y	G
	10061-02-6	trans-1,3-Dichloropropene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	1.8	C			N	E
	79-01-6	Trichloroethene	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.41	NC	10	SCO	N	E

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TABLE B1.1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 2 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	75-69-4	Trichlorofluoromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	2300	NC			N	E
	76-13-1	Trichlorotrifluoroethane	0.008 U	0.7 U	mg/kg	MC-SS-16	91	0	0%	0.008	0.7	0.7	NV	NV	670	NC	100	SSCO	N	E
	75-01-4	Vinyl Chloride	0.004 U	0.35 U	mg/kg	MC-SS-16	91	0	0%	0.004	0.35	0.35	NV	NV	0.059	C	0.21	SCO	Y	C, G

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
mg/kg = milligram per kilogram
RSBC = rural soil background concentration
SCO = NYS DEC Soil Cleanup Objective, Unrestricted
SCO-b = NYS DEC Soil Cleanup Objective, Unrestricted, based on background
SSCO = NYS DEC Supplemental Soil Cleanup Objective, Unrestricted
SL = screening level
SQL = sample quantitation limit

Footnotes

(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).

(2) Shaded box indicates frequency of detection is less than 5%.

(3) Total B(a)P Equivalents are a sum of cPAH analytes after multiplication by a Toxic Equivalency Factor (TEF): Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Indeno[1,2,3-cd]pyrene. Individual cPAH concentrations used for screening are multipled by their TEF. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(4) Total PCBs are sum of aroclors. The minimum and maximum of those results are provided here. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(5) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.

(6) Background threshold value for soil is from NYSDEC (2006) rural soils survey of New York state. NYSDEC refers to this value as a Rural Soil Background Concentration (RSBC).

(7) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.11.

(8) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%, and max detect > RSBC; B) retain: max detect > SL; note that FOD < 5% or max detect ≤ RSBC; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL; F) delete: essential nutrient; G) retain: max detect > ARAR/TBC; H) retain due to retained B(a)P equivalents.

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TABLE B1.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future On-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, On-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
Soil - McCaffrey St. Project Area, On-Site	PFAS																			
	375-73-5	Perfluorobutanesulfonic acid	0.00024 J	0.0045 U	mg/kg	MC-SS-12	155	3	2%	0.00053	0.0045	0.0045	NV	NV	1.9	NC			N	E
	335-76-2	Perfluorodecanoic acid	0.00028 J	0.0036 J	mg/kg	MC-SS-08	155	34	22%	0.00039	0.0011	0	NV	NV	NV	NV			Y	D
	307-55-1	Perfluorododecanoic acid	0.00026 J	0.0047 J	mg/kg	MC-SS-20	155	23	15%	0.00053	0.0022	0	NV	NV	NV	NV			Y	D
	375-85-9	Perfluoroheptanoic acid	0.00021 J	0.056	mg/kg	MC-GP-01B	155	32	21%	0.00053	0.0017	0.056	NV	NV	NV	NV			Y	D
	355-46-4	Perfluorohexane sulfonic acid	0.00053 U	0.0045 U	mg/kg	MC-SS-12	155	0	0%	0.00053	0.0045	0.0045	NV	NV	NV	NV			Y	D
	307-24-4	Perfluorohexanoic acid	0.00011 J	0.054	mg/kg	MC-GP-01A	155	57	37%	0.00035	0.0011	0.054	NV	NV	NV	NV			Y	D
	375-95-1	Perfluorononanoic acid	0.00018 J	0.0011 U	mg/kg	MC-SS-12	155	26	17%	0.00035	0.0011	0.0011	NV	NV	NV	NV			Y	D
	1763-23-1	Perfluorooctanesulfonic acid	0.00037 J	0.0048	mg/kg	MC-SS-21	155	19	13%	0.00079	0.0045	0.0048	NV	NV	0.00066	NC			Y	A
	335-67-1	Perfluorooctanoic acid	0.00032 J	2	mg/kg	MC-GP-01A	155	143	93%	0.00061	0.00071	2	NV	NV	0.00088	NC			Y	A
	376-06-7	Perfluorotetradecanoic acid	0.00034 J	0.02 J	mg/kg	MC-SS-20	155	23	15%	0.00053	0.0022	0.02	NV	NV	NV	NV			Y	D
	72629-94-8	Perfluorotridecanoic acid	0.00053 U	0.0045 J	mg/kg	MC-SS-20	155	13	9%	0.00053	0.0034	0.0045	NV	NV	NV	NV			Y	D
	2058-94-8	Perfluoroundecanoic acid	0.00034 J	0.0018 J	mg/kg	MC-SS-20	155	23	15%	0.00053	0.0017	0.0018	NV	NV	NV	NV			Y	D
	Metals																			
	7429-90-5	Aluminum	5230	25300 J	mg/kg	MC-MW-09	72	72	100%	NV	NV	25300	17000	14400	7700	NC			Y	A
	7440-36-0	Antimony	0.0986 J	3.87 J	mg/kg	MC-MW-06	72	69	96%	0.391	0.44	3.87	<2.7	NV	3.1	NC			Y	A
	7440-38-2	Arsenic	5.06	13.8 J	mg/kg	MC-MW-09	72	72	100%	NV	NV	13.8	14	14.1	0.68	C	16	SCO-b	Y	B
	7440-39-3	Barium	31.6 J	375	mg/kg	MC-MW-06	72	72	100%	NV	NV	375	312	188	1500	NC	350	SCO-b	Y	G
	7440-41-7	Beryllium	0.247	1.05	mg/kg	MC-MW-09	72	72	100%	NV	NV	1.05	1.1	1.3	16	NC	14	SCO	N	E
	7440-43-9	Cadmium	0.0676 J	0.973 J	mg/kg	MC-SS-08	72	71	99%	0.216	0.216	0.973	2.7	2.3	7.1	NC	2.5	SCO-b	N	E
	7440-70-2	Calcium	540 J	60600 J	mg/kg	MC-MW-22	72	72	100%	NV	NV	60600	46400	56500	NV	NV			N	F
	7440-47-3	Chromium	8.34 J	37.3 J	mg/kg	MC-SS-02	72	72	100%	NV	NV	37.3	22	17.5	0.3	NC	36	SCO	Y	A, G
	7440-48-4	Cobalt	6.28 J	25.7 J	mg/kg	MC-SS-02	72	72	100%	NV	NV	25.7	14.8	24.1	2.3	NC	30	SSCO	Y	A
	7440-50-8	Copper	10.9 J	82.4 J	mg/kg	MC-MW-13	72	72	100%	NV	NV	82.4	61	29.6	310	NC	270	SCO	N	E
	7439-89-6	Iron	13500	39500	mg/kg	MC-MW-09	72	72	100%	NV	NV	39500	27600	25700	5500	NC	2000	SSCO	Y	A, G
	7439-92-1	Lead	11.9 J	596	mg/kg	MC-SS-11	72	72	100%	NV	NV	596	75	133	200	NC	400	SCO	Y	A, G
	7439-95-4	Magnesium	3170	17200	mg/kg	MC-SS-07	72	72	100%	NV	NV	17200	7790	31400	NV	NV			N	F
	7439-96-5	Manganese	340	6010	mg/kg	MC-MW-06	72	72	100%	NV	NV	6010	1760	1560	180	NC	2000	SCO-b	Y	A, G
	7439-97-6	Mercury	0.0116 J	0.361	mg/kg	MC-SS-04	72	69	96%	0.0989	0.104	0.361	0.27	0.28	1.1	NC	0.81	SCO-b	N	E
	7440-02-0	Nickel	12 J	48.6 J	mg/kg	MC-SS-02	72	72	100%	NV	NV	48.6	26	29.5	150	NC			N	E
	7440-09-7	Potassium	739 J	4010 J	mg/kg	MC-MW-06	72	72	100%	NV	NV	4010	2180	1660	NV	NV			N	F
	7782-49-2	Selenium	0.107 J	2.76	mg/kg	MC-SS-10	72	70	98%	0.739	0.871	2.76	5.7	4.4	39	NC	36	SCO	N	E
	7440-22-4	Silver	0.0222 J	0.229 U	mg/kg	MC-MW-13	72	69	96%	0.188	0.229	0.229	1.3	0.4	39	NC	36	SCO	N	E
	7440-23-5	Sodium	22 J	1150	mg/kg	MC-MW-15	72	46	64%	149	394	1150	269	806	NV	NV			N	F
	7440-28-0	Thallium	0.0434 J	0.301 J	mg/kg	MC-MW-09	72	72	100%	NV	NV	0.301	NV	NV	0.078	NC			Y	A
	7440-62-2	Vanadium	9.24 J	34.7 J	mg/kg	MC-MW-13	72	72	100%	NV	NV	34.7	38	25.9	39	NC	100	SSCO	N	E
	7440-66-6	Zinc	36.6	329	mg/kg	MC-SS-08	72	72	100%	NV	NV	329	180	109	2300	NC	2200	SCO	N	E

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TABLE B1.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future On-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, On-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	PAH																			
	92-52-4	1,1''-Biphenyl	0.035 U	0.37 U	mg/kg	MC-SS-13	72	3	5%	0.035	0.37	0.37	NV	NV	4.7	NC			N	E
	91-57-6	2-Methylnaphthalene	0.004 J	0.77	mg/kg	MC-SS-09	72	40	56%	0.018	0.17	0.77	<0.0027	NV	24	NC	0.41	SSCO	Y	G
	88-74-4	2-Nitroaniline	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	63	NC			N	E
	99-09-2	3-Nitroaniline	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	0.05	NC			Y	C
	100-01-6	4-Nitroaniline	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	25	NC			N	E
	83-32-9	Acenaphthene	0.005 J	0.19 U	mg/kg	MC-SS-13	72	15	21%	0.018	0.19	0.19	<0.035	0.15	360	NC	100	SCO	N	E
	208-96-8	Acenaphthylene	0.004 J	0.27	mg/kg	MC-SS-08	72	30	42%	0.018	0.19	0.27	0.11	0.5	10	NC	100	SCO	N	E
	120-12-7	Anthracene	0.005 J	0.61	mg/kg	MC-MW-08	72	35	49%	0.018	0.19	0.61	0.12	0.62	1800	NC	100	SCO	N	E
	56-55-3	Benzo[a]anthracene	0.004 J	2.7	mg/kg	MC-MW-08	72	51	71%	0.018	0.17	0.27	0.5	2.9	0.11	C	1	SCO-b	Y	H
	50-32-8	Benzo[a]pyrene	0.004 J	2.4	mg/kg	MC-MW-08	72	51	71%	0.018	0.17	2.4	0.47	2.4	0.11	C	1	SCO-b	Y	H
	205-99-2	Benzo[b]fluoranthene	0.006 J	3.2	mg/kg	MC-MW-08	72	52	73%	0.018	0.17	0.32	0.59	3.3	0.11	C	1	SCO-b	Y	H
	191-24-2	Benzo[g,h,i]perylene	0.005 J	1.5	mg/kg	MC-MW-08	72	49	69%	0.018	0.19	1.5	0.2	0.63	10	NC	100	SCO	N	E
	207-08-9	Benzo[k]fluoranthene	0.004 J	1.2	mg/kg	MC-MW-08	72	48	67%	0.018	0.19	0.12	0.33	1.5	0.11	C	0.8	SCO-b	Y	H
	218-01-9	Chrysene	0.005 J	2.9	mg/kg	MC-MW-08	72	52	73%	0.018	0.17	0.0029	0.61	1.3	0.11	C	1	SCO	Y	H
	53-70-3	Dibenzo[a,h]anthracene	0.005 J	0.43	mg/kg	MC-MW-08	72	27	38%	0.018	0.19	0.43	<0.046	NV	0.11	C	0.33	SCO	Y	H
	132-64-9	Dibenzofuran	0.019 J	0.41 U	mg/kg	MC-SS-08	72	5	7%	0.035	0.41	0.41	0.053	0.18	7.8	NC	14	SCO	N	E
	206-44-0	Fluoranthene	0.004 J	5	mg/kg	MC-MW-08	72	54	75%	0.018	0.17	5	1.2	7.4	240	NC	100	SCO	N	E
	86-73-7	Fluorene	0.004 J	0.49 J	mg/kg	MC-SS-08	72	18	25%	0.018	0.19	0.49	0.087	0.58	240	NC	100	SCO	N	E
	193-39-5	Indeno[1,2,3-cd]pyrene	0.004 J	1.4	mg/kg	MC-MW-08	72	46	64%	0.018	0.19	0.14	0.18	0.66	0.11	C	0.5	SCO-b	Y	H
	91-20-3	Naphthalene	0.004 J	0.45	mg/kg	MC-SS-09	72	40	56%	0.018	0.17	0.45	0.024	0.017	0.11	C	100	SCO	Y	A
	85-01-8	Phenanthrene	0.004 J	2	mg/kg	MC-MW-08	72	54	75%	0.018	0.17	2	0.77	8.5	10	NC	100	SCO	N	E
	129-00-0	Pyrene	0.004 J	4.1	mg/kg	MC-MW-08	72	55	77%	0.018	0.17	4.1	1.1	8.7	180	NC	100	SCO	N	E
		Total B(a)P Equivalents (3)	0.0004 J	3.7	mg/kg	MC-MW-08	72	54	75%	0.018	0.19	3.7	0.652	3.135	0.11	C			Y	A
	PCBs																			
	12674-11-2	Aroclor 1016	0.017 U	0.038 U	mg/kg	MC-SS-13	72	0	0%	0.017	0.038	0.038	NV	NV	0.41	NC			N	E
	11104-28-2	Aroclor 1221	0.017 U	0.038 U	mg/kg	MC-SS-13	72	0	0%	0.017	0.038	0.038	NV	NV	0.41	NC			N	E
	11141-16-5	Aroclor 1232	0.017 U	0.038 U	mg/kg	MC-SS-13	72	0	0%	0.017	0.038	0.038	NV	NV	0.41	NC			N	E
	53469-21-9	Aroclor 1242	0.0054 J	0.038 U	mg/kg	MC-SS-13	72	1	2%	0.017	0.038	0.038	NV	NV	0.41	NC			N	E
	12672-29-6	Aroclor 1248	0.017 U	0.038 U	mg/kg	MC-SS-13	72	0	0%	0.017	0.038	0.038	NV	NV	0.12	NC			N	E
	11097-69-1	Aroclor 1254	0.011 J	0.038 U	mg/kg	MC-SS-13	72	3	5%	0.017	0.038	0.038	NV	NV	0.12	NC			N	E
	11096-82-5	Aroclor 1260	0.0086 J	0.12	mg/kg	MC-MW-16	72	20	28%	0.018	0.038	0.12		0.032	0.12	NC			N	E
	37324-23-5	Aroclor 1262	0.0057 J	0.038 U	mg/kg	MC-SS-13	72	4	6%	0.017	0.038	0.038	NV	NV	0.12	NC			N	E
	11100-14-4	Aroclor 1268	0.017 U	0.038 U	mg/kg	MC-SS-13	72	0	0%	0.017	0.038	0.038	NV	NV	0.12	NC			N	E
	1336-36-3	Total PCB Aroclors (4)	0.0054 J	0.12	mg/kg	MC-MW-16	72	26	37%	NV	0.038	0.12	NV	NV	0.23	C	1	SCO	N	E
	Pesticides																			
	72-54-8	4,4''-DDD	0.00056 J	0.0037 U	mg/kg	MC-MW-16	72	3	5%	0.0017	0.0037	0.0037	<0.0049	NV	0.19	NC	2.6	SCO	N	E
	72-55-9	4,4''-DDE	0.00042 J	0.0082	mg/kg	MC-SS-11	72	24	34%	0.0017	0.0037	0.0082	NV	NV	2	C	1.8	SCO	N	E
	50-29-3	4,4''-DDT	0.00043 J	0.011	mg/kg	MC-SS-13	72	29	41%	0.0017	0.0037	0.011	NV	NV	1.9	C	1.7	SCO	N	E
	309-00-2	Aldrin	0.00085 U	0.0018 U	mg/kg	Multiple Locations	72	0	0%	0.00085	0.0018	0.0018	NV	NV	0.039	C	0.019	SCO	N	E
	319-84-6	alpha-Benzenehexachloride	0.00028 J	0.0018 U	mg/kg	MC-MW-16	72	6	9%	0.00085	0.0018	0.0018	NV	NV	0.086	C	0.097	SCO	N	E
	1912-24-9	Atrazine	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	2.4	C			N	E
	319-85-7	beta-Benzenehexachloride	0.001 U	0.0022 U	mg/kg	Multiple Locations	72	0	0%	0.001	0.0022	0.0022	NV	NV	0.3	C	0.072	SCO	N	E
	86-74-8	Carbazole	0.024 J	0.41 U	mg/kg	MC-SS-08	72	8	12%	0.035	0.41	0.41	NV	NV	NV	NV			Y	D
	5103-71-9	cis-Chlordane	0.00024 J	0.0018 U	mg/kg	Multiple Locations	72	4	6%	0.00085	0.0018	0.0018	<0.007	NV	3.6	NC	0.91	SCO	N	E
	319-86-8	delta-Benzenehexachloride	0.00069 J	0.002 U	mg/kg	Multiple Locations	72	1	2%	0.00092	0.002	0.002	NV	NV	18	NC	100	SCO	N	E
	60-57-1	Dieldrin	0.00049 J	0.0038 U	mg/kg	MC-SS-13	72	2	3%	0.0017	0.0038	0.0038	NV	NV	0.034	C	0.039	SCO	N	E

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TABLE B1.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future On-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, On-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	959-98-8	Endosulfan I	0.00034 J	0.0018 U	mg/kg	Multiple Locations	72	4	6%	0.00085	0.0018	0.0018	<0.007	NV	47	NC	4.8	SCO	N	E
	33213-65-9	Endosulfan II	0.0017 U	0.0038 U	mg/kg	MC-SS-13	72	0	0%	0.0017	0.0038	0.0038	NV	NV	47	NC	4.8	SCO	N	E
	1031-07-8	Endosulfan sulfate	0.00068 J	0.0039	mg/kg	MC-MW-13	72	2	3%	0.0017	0.0038	0.0039	NV	NV	38	NC	4.8	SCO	N	E
	72-20-8	Endrin	0.00053 J	0.0037 U	mg/kg	MC-MW-16	72	6	9%	0.0017	0.0037	0.0037	NV	NV	1.9	NC	2.2	SCO	N	E
	7421-93-4	Endrin aldehyde	0.00071 J	0.0038 U	mg/kg	MC-SS-13	72	5	7%	0.0018	0.0038	0.0038	NV	NV	NV	NV			Y	D
	53494-70-5	Endrin ketone	0.0018 U	0.004 U	mg/kg	MC-SS-13	72	0	0%	0.0018	0.004	0.004	NV	NV	NV	NV			Y	D
	58-89-9	gamma-Benzenehexachloride	0.00074 J	0.0018 U	mg/kg	Multiple Locations	72	2	3%	0.00085	0.0018	0.0018	NV	NV	0.57	C	0.28	SCO	N	E
	76-44-8	Heptachlor	0.00021 J	0.0073 U	mg/kg	MC-SS-09	72	9	13%	0.00085	0.0073	0.0073	NV	NV	0.13	C	0.42	SCO	N	E
	1024-57-3	Heptachlor epoxide	0.00038 J	0.0018 U	mg/kg	Multiple Locations	72	4	6%	0.00085	0.0018	0.0018	<0.0058	NV	0.07	C	0.077	SSCO	N	E
	72-43-5	Methoxychlor	0.0069 U	0.015 U	mg/kg	Multiple Locations	72	0	0%	0.0069	0.015	0.015	NV	NV	32	NC	100	SSCO	N	E
	8001-35-2	Toxaphene	0.034 U	0.074 U	mg/kg	MC-SS-13	72	0	0%	0.034	0.074	0.074	NV	NV	0.49	C			N	E
	5103-74-2	trans-Chlordane	0.00023 J	0.0018 U	mg/kg	Multiple Locations	72	5	7%	0.00085	0.0018	0.0018	<0.007	NV	3.6	NC	0.54	SSCO	N	E
	Phenols																			
	58-90-2	2,3,4,6-Tetrachlorophenol	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	190	NC			N	E
	95-95-4	2,4,5-Trichlorophenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	630	NC	100	SSCO	N	E
	88-06-2	2,4,6-Trichlorophenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	6.3	NC			N	E
	120-83-2	2,4-Dichlorophenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	19	NC	100	SSCO	N	E
	95-57-8	2-Chlorophenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	39	NC	100	SSCO	N	E
	87-86-5	Pentachlorophenol	0.18 UJ	2.1 UJ	mg/kg	MC-SS-08	72	0	0%	0.18	2.1	2.1	NV	NV	1	C	2.4	SCO	Y	C
	Semi-Volatiles																			
	120-82-1	1,2,4-Trichlorobenzene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	5.8	NC			N	E
	95-50-1	1,2-Dichlorobenzene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	180	NC	100	SCO	N	E
	541-73-1	1,3-Dichlorobenzene	0.0009 J	0.24 U	mg/kg	MC-MW-13	110	3	3%	0.004	0.24	0.24	NV	NV	1.7	NC	17	SCO	N	E
	106-46-7	1,4-Dichlorobenzene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	2.6	C	9.8	SCO	N	E
	105-67-9	2,4-Dimethylphenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	130	NC			N	E
	51-28-5	2,4-Dinitrophenol	1 U	12 U	mg/kg	MC-SS-08	71	0	0%	1	12	12	NV	NV	13	NC	100	SSCO	N	E
	121-14-2	2,4-Dinitrotoluene	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	1.7	C			Y	C
	606-20-2	2,6-Dinitrotoluene	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	0.36	C	1.03	SSCO	Y	C
	91-58-7	2-Chloronaphthalene	0.034 U	0.4 U	mg/kg	MC-SS-08	72	0	0%	0.034	0.4	0.4	NV	NV	480	NC			N	E
	95-48-7	2-Methylphenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	<0.99	NV	320	NC	100	SCO	N	E
	88-75-5	2-Nitrophenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	NV	NV			Y	D
	91-94-1	3,3"-Dichlorobenzidine	0.35 U	4.1 U	mg/kg	MC-SS-08	72	0	0%	0.35	4.1	4.1	NV	NV	1.2	C			Y	C
	534-52-1	4,6-Dinitro-2-methylphenol	0.52 U	6.1 U	mg/kg	MC-SS-08	72	0	0%	0.52	6.1	6.1	NV	NV	0.51	NC			Y	C
	101-55-3	4-Bromophenyl-phenylether	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	NV	NV			Y	D
	59-50-7	4-Chloro-3-methylphenol	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	630	NC			N	E
	106-47-8	4-Chloroaniline	0.07 U	0.82 U	mg/kg	MC-SS-08	72	0	0%	0.07	0.82	0.82	NV	NV	2.7	C	100	SSCO	N	E
	7005-72-3	4-Chlorophenyl-phenyl ether	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	NV	NV			Y	D
	106-44-5	4-Methylphenol	0.029 J	0.41 U	mg/kg	MC-SS-08	72	1	2%	0.035	0.41	0.41	NV	NV	630	NC	34	SCO	N	E
	100-02-7	4-Nitrophenol	0.52 U	6.1 U	mg/kg	MC-SS-08	72	0	0%	0.52	6.1	6.1	NV	NV	NV	NV			Y	D
	98-86-2	Acetophenone	0.035 U	0.52 J	mg/kg	MC-SS-13	72	2	3%	0.035	0.41	0.52	NV	NV	780	NC			N	E
	100-52-7	Benzaldehyde	0.077 J	2 U	mg/kg	MC-SS-08	72	14	20%	0.17	2	2	NV	NV	170	C			N	E
	85-68-7	Benzyl n-butyl phthalate	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	290	C	100	SSCO	N	E
	111-91-1	bis(2-Chloroethoxy)methane	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	19	NC			N	E
	111-44-4	Bis(2-chloroethyl)ether	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	0.23	C			Y	C
	117-81-7	bis(2-Ethylhexyl)phthalate	0.18 U	1.9 U	mg/kg	MC-SS-13	72	1	2%	0.18	1.9	1.9	NV	NV	39	C	50	SSCO	N	E
	105-60-2	Caprolactam	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	3100	NC			N	E

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TABLE B1.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future On-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, On-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	84-66-2	Diethyl phthalate	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	5100	NC			N	E
	131-11-3	Dimethyl phthalate	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	NV	NV	100	SSCO	Y	D
	84-74-2	Di-n-butyl phthalate	0.17 U	2.2 J	mg/kg	MC-SS-13	72	1	2%	0.17	2	2.2	NV	NV	630	NC	100	SSCO	N	E
	117-84-0	Di-n-octylphthalate	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	63	NC	100	SSCO	N	E
	118-74-1	Hexachlorobenzene	0.018 U	0.21 U	mg/kg	MC-SS-08	72	0	0%	0.018	0.21	0.21	NV	NV	0.21	C	0.33	SCO	N	E
	87-68-3	Hexachlorobutadiene	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	1.2	C			N	E
	77-47-4	Hexachlorocyclopentadiene	0.52 U	6.1 UJ	mg/kg	MC-SS-08	71	0	0%	0.52	6.1	6.1	NV	NV	0.18	NC			Y	C
	67-72-1	Hexachloroethane	0.17 U	2 U	mg/kg	MC-SS-08	72	0	0%	0.17	2	2	NV	NV	1.8	C			Y	C
	78-59-1	Isophorone	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	570	C	100	SSCO	N	E
	98-95-3	Nitrobenzene	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	5.1	C	3.7	SSCO	N	E
	621-64-7	N-Nitrosodi-n-propylamine	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	0.078	C			Y	C
	86-30-6	N-Nitrosodiphenylamine	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	110	C			N	E
	108-95-2	Phenol	0.023 J	0.41 U	mg/kg	MC-SS-08	72	1	2%	0.035	0.41	0.41	NV	NV	1900	NC	100	SCO	N	E
	Volatiles																			
	71-55-6	1,1,1-Trichloroethane	0.001 J	0.24 U	mg/kg	MC-MW-13	110	1	1%	0.004	0.24	0.24	NV	NV	810	NC	100	SCO	N	E
	79-34-5	1,1,2,2-Tetrachloroethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.6	C	35	SSCO	N	E
	79-00-5	1,1,2-Trichloroethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.15	NC			Y	C
	75-34-3	1,1-Dichloroethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	1	1%	0.004	0.24	0.24	NV	NV	3.6	C	19	SCO	N	E
	75-35-4	1,1-Dichloroethene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	23	NC	100	SCO	N	E
	87-61-6	1,2,3-Trichlorobenzene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	6.3	NC			N	E
	95-94-3	1,2,4,5-Tetrachlorobenzene	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	2.3	NC			N	E
	96-12-8	1,2-Dibromo-3-chloropropane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.0053	C			Y	C
	106-93-4	1,2-Dibromoethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.036	C			Y	C
	107-06-2	1,2-Dichloroethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.46	C	2.3	SCO	N	E
	78-87-5	1,2-Dichloropropane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	1.6	NC			N	E
	123-91-1	1,4-Dioxane	0.35 U	4.1 U	mg/kg	MC-SS-08	72	0	0%	0.35	4.1	4.1	NV	NV	5.3	C	9.8	SCO	N	E
	78-93-3	2-Butanone	0.003 J	0.49 U	mg/kg	MC-MW-13	110	2	2%	0.008	0.49	0.49	NV	NV	2700	NC	100	SCO	N	E
	591-78-6	2-Hexanone	0.008 UJ	0.49 U	mg/kg	MC-MW-13	110	0	0%	0.008	0.49	0.49	NV	NV	20	NC			N	E
	108-10-1	4-Methyl-2-pentanone	0.008 UJ	0.49 U	mg/kg	MC-MW-13	110	0	0%	0.008	0.49	0.49	NV	NV	3300	NC			N	E
	67-64-1	Acetone	0.007 J	0.97 U	mg/kg	MC-MW-13	110	38	35%	0.015	0.97	0.97	NV	NV	6100	NC	100	SCO	N	E
	71-43-2	Benzene	0.0006 J	0.24 U	mg/kg	MC-MW-13	110	5	5%	0.004	0.24	0.24	NV	NV	1.2	C	2.9	SCO	N	E
	39638-32-9	Bis(2-chloroisopropyl) ether	0.035 U	0.41 U	mg/kg	MC-SS-08	72	0	0%	0.035	0.41	0.41	NV	NV	NV	NV			Y	D
	74-97-5	Bromochloromethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	15	NC			N	E
	75-27-4	Bromodichloromethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.29	C			N	E
	75-25-2	Bromoform	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	19	C			N	E
	74-83-9	Bromomethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.68	NC			N	E
	75-15-0	Carbon disulfide	0.001 J	0.24 U	mg/kg	MC-MW-13	110	6	6%	0.004	0.24	0.24	NV	NV	77	NC	100	SSCO	N	E
	56-23-5	Carbon Tetrachloride	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.65	C	1.4	SCO	N	E
	108-90-7	Chlorobenzene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	28	NC	100	SCO	N	E
	75-00-3	Chloroethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	1400	NC			N	E
	67-66-3	Chloroform	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.32	C	10	SCO	N	E
	74-87-3	Chloromethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	11	NC			N	E
	156-59-2	cis-1,2-Dichloroethene	0.001 J	0.24 U	mg/kg	MC-MW-13	110	1	1%	0.004	0.24	0.24	NV	NV	16	NC	59	SCO	N	E
	10061-01-5	cis-1,3-Dichloropropene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	1.8	C			N	E
	110-82-7	Cyclohexane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	650	NC			N	E
	124-48-1	Dibromochloromethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	8.3	C			N	E

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TABLE B1.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future On-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, On-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	75-71-8	Dichlorodifluoromethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	8.7	NC			N	E
	100-41-4	Ethylbenzene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	1	1%	0.004	0.24	0.24	NV	NV	5.8	C	30	SCO	N	E
	98-82-8	Isopropylbenzene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	3	3%	0.004	0.24	0.24	NV	NV	190	NC	100	SSCO	N	E
	179601-23-1	m,p-Xylene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	0.0024	0.0068	55	NC			N	E
	79-20-9	Methyl acetate	0.004 UJ	0.25	mg/kg	MC-MW-13	110	3	3%	0.004	0.017	0.25	NV	NV	7800	NC			N	E
	1634-04-4	Methyl tert-butyl ether	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	47	C	62	SCO	N	E
	108-87-2	Methylcyclohexane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	650	NC			N	E
	75-09-2	Methylene Chloride	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	35	NC	51	SCO	N	E
	95-47-6	o-Xylene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	65	NC			N	E
	100-42-5	Styrene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	600	NC			N	E
	127-18-4	Tetrachloroethene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	8.1	NC	5.5	SCO	N	E
	108-88-3	Toluene	0.001 J	0.24 U	mg/kg	MC-MW-13	110	2	2%	0.004	0.24	0.24	<0.0012	NV	490	NC	100	SCO	N	E
	156-60-5	trans-1,2-Dichloroethene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	7	NC	0.19	SCO	Y	G
	10061-02-6	trans-1,3-Dichloropropene	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	1.8	C			N	E
	79-01-6	Trichloroethene	0.0009 J	0.24 U	mg/kg	MC-MW-13	110	7	7%	0.004	0.24	0.24	NV	NV	0.41	NC	10	SCO	N	E
	75-69-4	Trichlorofluoromethane	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	2300	NC			N	E
	76-13-1	Trichlorotrifluoroethane	0.008 UJ	0.49 U	mg/kg	MC-MW-13	110	0	0%	0.008	0.49	0.49	NV	NV	670	NC	100	SSCO	N	E
	75-01-4	Vinyl Chloride	0.004 UJ	0.24 U	mg/kg	MC-MW-13	110	0	0%	0.004	0.24	0.24	NV	NV	0.059	C	0.21	SCO	Y	C, G

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
mg/kg = milligram per kilogram
RSBC = rural soil background concentration
SCO = NYS DEC Soil Cleanup Objective, Unrestricted
SCO-b = NYS DEC Soil Cleanup Objective, Unrestricted, based on background
SSCO = NYS DEC Supplemental Soil Cleanup Objective, Unrestricted
SL = screening level
SQL = sample quantitation limit

Footnotes

(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).

(2) Shaded box indicates frequency of detection is less than 5%.

(3) Total B(a)P Equivalents are a sum of cPAH analytes after multiplication by a Toxic Equivalency Factor (TEF): Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Indeno[1,2,3-cd]pyrene. Individual cPAH concentrations used for screening are multipled by their TEF. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(4) Total PCBs are sum of aroclors. The minimum and maximum of those results are provided here. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(5) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.

(6) Background threshold value for soil is from NYSDEC (2006) rural soils survey of New York state. NYSDEC refers to this value as a Rural Soil Background Concentration (RSBC).

(7) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.11.

(8) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%, and max detect > RSBC; B) retain: max detect > SL; note that FOD < 5% or max detect ≤ RSBC; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL; F) delete: essential nutrient; G) retain: max detect > ARAR/TBC; H) retain due to retained B(a)P equivalents.

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TABLE B1.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency: No. Samples	Detection Frequency: No. Detects	Frequency of Detect (2)	Range of Detection Limits: Min SQL	Range of Detection Limits: Max SQL	Concentration Used for Screening (3) (4) (5)	Background Value: Source Distant (6)	Background Value: Near Source (6)	Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
Soil - McCaffrey St. Project Area, Off-Site	PFAS																			
	375-22-4	Heptafluorobutanoic acid	0.002 U	0.003 U	mg/kg	Multiple Locations	18	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid	0.002 U	0.003 U	mg/kg	Multiple Locations	18	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid	0.002 U	0.003 U	mg/kg	Multiple Locations	17	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	375-73-5	Perfluorobutanesulfonic acid	0.00049 U	0.003 U	mg/kg	MC-MW-20	195	1	1%	0.00049	0.003	0.003	NV	NV	1.9	NC			N	E
	335-77-3	Perfluorodecane sulfonic acid	0.00099 U	0.0015 U	mg/kg	Multiple Locations	18	0	0%	0.00099	0.0015	0.0015	NV	NV	NV	NV			Y	D
	335-76-2	Perfluorodecanoic acid	0.00024 J	0.0016	mg/kg	MC-PZ-07	195	37	19%	0.00041	0.0011	0.0016	NV	NV	NV	NV			Y	D
	307-55-1	Perfluorododecanoic acid	0.00023 J	0.0029	mg/kg	MC-SED-05	195	14	8%	0.00049	0.0015	0.0029	NV	NV	NV	NV			Y	D
	375-92-8	Perfluoroheptane sulfonate	0.0006 U	0.00091 U	mg/kg	MC-MW-42	18	0	0%	0.0006	0.00091	0.00091	NV	NV	NV	NV			Y	D
	375-85-9	Perfluoroheptanoic acid	0.00027 J	0.002	mg/kg	MC-PZ-03	195	12	7%	0.00049	0.0011	0.002	NV	NV	NV	NV			Y	D
	355-46-4	Perfluorohexane sulfonic acid	0.00049 U	0.003 U	mg/kg	MC-MW-20	195	0	0%	0.00049	0.003	0.003	NV	NV	NV	NV			Y	D
	307-24-4	Perfluorohexanoic acid	0.00012 J	0.0014	mg/kg	MC-MW-21	195	53	28%	0.00033	0.0011	0.0014	NV	NV	NV	NV			Y	D
	375-95-1	Perfluorononanoic acid	0.000086 J	0.0011 U	mg/kg	MC-PZ-03	195	44	23%	0.00033	0.0011	0.0011	NV	NV	NV	NV			Y	D
	754-91-6	Perfluorooctane sulfonamide	0.0006 U	0.00091 U	mg/kg	MC-MW-42	18	0	0%	0.0006	0.00091	0.00091	NV	NV	NV	NV			Y	D
	1763-23-1	Perfluorooctanesulfonic acid	0.00032 J	0.003 U	mg/kg	MC-MW-20	195	61	32%	0.00074	0.003	0.003	NV	NV	0.00066	NC			Y	A
	335-67-1	Perfluorooctanoic acid	0.00019 J	0.12	mg/kg	MC-GP-20	195	180	93%	0.00054	0.00068	0.12	NV	NV	0.00088	NC			Y	A
	2706-90-3	Perfluoropentanoic acid	0.00054 J	0.00091 U	mg/kg	MC-MW-42	18	1	6%	0.0006	0.00091	0.00091	NV	NV	NV	NV			Y	D
	376-06-7	Perfluorotetradecanoic acid	0.00019 J	0.0016	mg/kg	MC-SED-05	195	4	3%	0.00049	0.0015	0.0016	NV	NV	NV	NV			Y	D
	72629-94-8	Perfluorotridecanoic acid	0.00019 J	0.0023 U	mg/kg	MC-MW-20	195	5	3%	0.00049	0.0023	0.0023	NV	NV	NV	NV			Y	D
	2058-94-8	Perfluoroundecanoic acid	0.00025 J	0.0012	mg/kg	MC-PZ-07	195	17	9%	0.00049	0.00097	0.0012	NV	NV	NV	NV			Y	D
	39108-34-4	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.002 U	0.003 U	mg/kg	Multiple Locations	18	0	0%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	27619-97-2	Sodium 1h,1h,2h,2h-perfluorooctane sulfonate (6:2)	0.0017 J	0.003 U	mg/kg	Multiple Locations	18	1	6%	0.002	0.003	0.003	NV	NV	NV	NV			Y	D
	Metals																			
	7429-90-5	Aluminum	2300	28200	mg/kg	MC-SB-02	166	166	100%	NV	NV	28200	17000	14400	7700	NC			Y	A
	7440-36-0	Antimony	0.0849 J	2.59	mg/kg	MC-SB-01	166	140	85%	0.301	0.56	2.59	<2.7	NV	3.1	NC			N	E
	7440-38-2	Arsenic	0.222 J	34.7 J	mg/kg	MC-SB-02	166	166	100%	NV	NV	34.7	14	14.1	0.68	C	16	SCO-b	Y	A, G
	7440-39-3	Barium	16.7	351	mg/kg	MC-MW-25	166	166	100%	NV	NV	351	312	188	1500	NC	350	SCO-b	Y	G
	7440-41-7	Beryllium	0.0215 J	1.26 J	mg/kg	MC-MW-32	166	166	100%	NV	NV	1.26	1.1	1.3	16	NC	14	SCO	N	E
	7440-43-9	Cadmium	0.0444 J	5.52 J	mg/kg	MC-SB-01	166	164	99%	0.167	0.189	5.52	2.7	2.3	7.1	NC	2.5	SCO-b	Y	G
	7440-70-2	Calcium	316 J	191000	mg/kg	MC-MW-36	166	166	100%	NV	NV	191000	46400	56500	NV	NV			N	F
	7440-47-3	Chromium	1.48 J	83.6	mg/kg	MC-SS-15	166	166	100%	NV	NV	83.6	22	17.5	0.3	NC	36	SCO	Y	A, G
	7440-48-4	Cobalt	0.2 J	27.1 J	mg/kg	MC-MW-07	166	166	100%	NV	NV	27.1	14.8	24.1	2.3	NC	30	SSCO	Y	A
	7440-50-8	Copper	5.24 J	268 J	mg/kg	MC-SB-01	166	166	100%	NV	NV	268	61	29.6	310	NC	270	SCO	N	E
	7439-89-6	Iron	7040	90900	mg/kg	MC-SB-01	166	166	100%	NV	NV	90900	27600	25700	5500	NC	2000	SSCO	Y	A, G
	7439-92-1	Lead	3.55 J	3290 J	mg/kg	MC-SB-01	166	166	100%	NV	NV	3290	75	133	200	NC	400	SCO	Y	A, G
	7439-95-4	Magnesium	1940	51500	mg/kg	MC-MW-32	166	166	100%	NV	NV	51500	7790	31400	NV	NV			N	F
	7439-96-5	Manganese	124	7770	mg/kg	MC-MW-25	166	166	100%	NV	NV	7770	1760	1560	180	NC	2000	SCO-b	Y	A, G
	7439-97-6	Mercury	0.0129 J	0.746	mg/kg	MC-SS-15	166	130	79%	0.0954	0.152	0.746	0.27	0.28	1.1	NC	0.81	SCO-b	N	E
	7440-02-0	Nickel	1.24 J	52.6 J	mg/kg	MC-MW-07	166	166	100%	NV	NV	52.6	26	29.5	150	NC			N	E
	7440-09-7	Potassium	439	5020 J	mg/kg	MC-MW-32	166	166	100%	NV	NV	5020	2180	1660	NV	NV			N	F
	7782-49-2	Selenium	0.0819 J	1.55	mg/kg	MC-SB-01	166	136	82%	0.317	0.966	1.55	5.7	4.4	39	NC	36	SCO	N	E
	7440-22-4	Silver	0.0245 J	0.926	mg/kg	MC-SS-16	166	135	82%	0.0876	0.28	0.926	1.3	0.4	39	NC	36	SCO	N	E
	7440-23-5	Sodium	21.3 J	1280	mg/kg	MC-MW-37	166	160	97%	202	229	1280	269	806	NV	NV			N	F
	7440-28-0	Thallium	0.0239 J	0.262	mg/kg	MC-SB-02	166	165	100%	0.182	0.182	0.262	NV	NV	0.078	NC			Y	A
	7440-62-2	Vanadium	0.251 J	46.5 J	mg/kg	MC-MW-07	166	166	100%	NV	NV	46.5	38	25.9	39	NC	100	SSCO	Y	A
	7440-66-6	Zinc	22.7	1720	mg/kg	MC-SB-01	166	166	100%	NV	NV	1720	180	109	2300	NC	2200	SCO	N	E
	PAH																			

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TABLE B1.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency: No. Samples	Detection Frequency: No. Detects	Frequency of Detect (2)	Range of Detection Limits: Min SQL	Range of Detection Limits: Max SQL	Concentration Used for Screening (3) (4) (5)	Background Value (6): Source Distant	Background Value (6): Near Source	Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
	92-52-4	1,1'-Biphenyl	0.022 J	0.9	mg/kg	MC-MW-07	166	4	3%	0.033	0.87	0.9	NV	NV	4.7	NC			N	E
	91-57-6	2-Methylnaphthalene	0.004 J	2	mg/kg	MC-MW-07	166	79	48%	0.017	0.44	2	<0.0027	NV	24	NC	0.41	SSCO	Y	G
	88-74-4	2-Nitroaniline	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	63	NC			N	E
	99-09-2	3-Nitroaniline	0.12 J	4.3 U	mg/kg	MC-MW-27	166	2	2%	0.17	4.3	4.3	NV	NV	0.05	NC			Y	C
	100-01-6	4-Nitroaniline	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	25	NC			N	E
	83-32-9	Acenaphthene	0.004 J	1.7	mg/kg	MC-PZ-06	166	36	22%	0.017	0.44	1.7	<0.035	0.15	360	NC	100	SCO	N	E
	208-96-8	Acenaphthylene	0.004 J	5.8	mg/kg	MC-MW-20	164	93	57%	0.017	0.44	5.8	0.11	0.5	10	NC	100	SCO	N	E
	120-12-7	Anthracene	0.004 J	4.7	mg/kg	MC-MW-20	166	81	49%	0.017	0.44	4.7	0.12	0.62	1800	NC	100	SCO	N	E
	56-55-3	Benzo[a]anthracene	0.004 J	18	mg/kg	MC-MW-20	166	110	67%	0.017	0.44	1.8	0.5	2.9	0.11	C	1	SCO-b	Y	H
	50-32-8	Benzo[a]pyrene	0.004 J	11	mg/kg	MC-MW-20	166	114	69%	0.017	0.44	11	0.47	2.4	0.11	C	1	SCO-b	Y	H
	205-99-2	Benzo[b]fluoranthene	0.004 J	24	mg/kg	MC-MW-20	166	115	70%	0.017	0.024	2.4	0.59	3.3	0.11	C	1	SCO-b	Y	H
	191-24-2	Benzo[g,h,i]perylene	0.005 J	6.1	mg/kg	MC-MW-20	166	108	66%	0.017	0.024	6.1	0.2	0.63	10	NC	100	SCO	N	E
	207-08-9	Benzo[k]fluoranthene	0.004 J	8.7	mg/kg	MC-MW-20	166	101	61%	0.017	0.44	0.87	0.33	1.5	0.11	C	0.8	SCO-b	Y	H
	218-01-9	Chrysene	0.004 J	19	mg/kg	MC-MW-20	166	117	71%	0.017	0.024	0.019	0.61	1.3	0.11	C	1	SCO	Y	H
	53-70-3	Dibenzo[a,h]anthracene	0.004 J	2.7	mg/kg	MC-MW-20	166	72	44%	0.017	0.44	2.7	<0.046	NV	0.11	C	0.33	SCO	Y	H
	132-64-9	Dibenzofuran	0.025 J	1.4	mg/kg	MC-PZ-06	166	8	5%	0.033	0.87	1.4	0.053	0.18	7.8	NC	14	SCO	N	E
	206-44-0	Fluoranthene	0.004 J	41	mg/kg	MC-MW-20	166	116	70%	0.017	0.44	41	1.2	7.4	240	NC	100	SCO	N	E
	86-73-7	Fluorene	0.004 J	2	mg/kg	MC-PZ-06	166	47	29%	0.017	0.44	2	0.087	0.58	240	NC	100	SCO	N	E
	193-39-5	Indeno[1,2,3-cd]pyrene	0.004 J	6.9	mg/kg	MC-MW-20	166	102	62%	0.017	0.44	0.69	0.18	0.66	0.11	C	0.5	SCO-b	Y	H
	91-20-3	Naphthalene	0.004 J	1.1	mg/kg	Multiple Locations	166	89	54%	0.017	0.44	1.1	0.024	0.017	0.11	C	100	SCO	Y	A
	85-01-8	Phenanthrene	0.004 J	17	mg/kg	MC-PZ-06	166	113	69%	0.017	0.44	17	0.77	8.5	10	NC	100	SCO	Y	A
	129-00-0	Pyrene	0.004 J	36	mg/kg	MC-MW-20	166	124	75%	0.017	0.024	36	1.1	8.7	180	NC	100	SCO	N	E
		Total B(a)P Equivalents (3)	0.000004 J	19.5	mg/kg	MC-MW-20	166	122	73%	0.017	0.44	19.5	0.652	3.135	0.11	C			Y	A
	PCBs																			
	12674-11-2	Aroclor 1016	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	166	0	0%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	11104-28-2	Aroclor 1221	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	166	0	0%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	11141-16-5	Aroclor 1232	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	166	0	0%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	53469-21-9	Aroclor 1242	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	166	1	1%	0.017	0.028	0.028	NV	NV	0.41	NC			N	E
	12672-29-6	Aroclor 1248	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	166	0	0%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	11097-69-1	Aroclor 1254	0.0087 J	0.028 U	mg/kg	MC-PZ-03	166	8	5%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	11096-82-5	Aroclor 1260	0.0094 J	0.055	mg/kg	MC-MW-10	166	14	9%	0.017	0.028	0.055		0.032	0.12	NC			N	E
	37324-23-5	Aroclor 1262	0.017 UJ	0.028 U	mg/kg	MC-PZ-03	166	0	0%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	11100-14-4	Aroclor 1268	0.0082 J	0.028 U	mg/kg	MC-PZ-03	166	2	2%	0.017	0.028	0.028	NV	NV	0.12	NC			N	E
	1336-36-3	Total PCB Aroclors (4)	0.0085 J	0.055	mg/kg	MC-MW-10	166	23	14%	0.017	0.028	0.055	NV	NV	0.23	C	1	SCO	N	E
	Pesticides																			
	72-54-8	4,4'-DDD	0.00039 J	0.019 U	mg/kg	MC-MW-40	166	14	9%	0.0017	0.019	0.019	<0.0049	NV	0.19	NC	2.6	SCO	N	E
	72-55-9	4,4'-DDE	0.00035 J	0.019 U	mg/kg	MC-MW-40	166	43	26%	0.0017	0.019	0.019	NV	NV	2	C	1.8	SCO	N	E
	50-29-3	4,4'-DDT	0.00044 J	0.06	mg/kg	MC-MW-24	166	60	37%	0.0017	0.019	0.06	NV	NV	1.9	C	1.7	SCO	N	E
	309-00-2	Aldrin	0.00028 J	0.0087 U	mg/kg	MC-MW-27	166	6	4%	0.00084	0.0087	0.0087	NV	NV	0.039	C	0.019	SCO	N	E
	319-84-6	alpha-Benzenehexachloride	0.00024 J	0.0094 U	mg/kg	MC-MW-40	166	14	9%	0.00084	0.0094	0.0094	NV	NV	0.086	C	0.097	SCO	N	E
	1912-24-9	Atrazine	0.17 U	5.1 U	mg/kg	MC-MW-40	166	0	0%	0.17	5.1	5.1	NV	NV	2.4	C			Y	C
	319-85-7	beta-Benzenehexachloride	0.001 U	0.011 U	mg/kg	MC-MW-40	165	7	5%	0.001	0.011	0.011	NV	NV	0.3	C	0.072	SCO	N	E
	86-74-8	Carbazole	0.021 J	2.1	mg/kg	MC-PZ-06	166	19	12%	0.033	0.87	2.1	NV	NV	NV	NV			Y	D
	5103-71-9	cis-Chlordane	0.00023 J	0.0094 U	mg/kg	MC-MW-40	166	16	10%	0.00084	0.0094	0.0094	<0.007	NV	3.6	NC	0.91	SCO	N	E
	319-86-8	delta-Benzenehexachloride	0.00063 J	0.011 U	mg/kg	MC-MW-40	164	5	4%	0.00091	0.011	0.011	NV	NV	18	NC	100	SCO	N	E
	60-57-1	Dieldrin	0.00037 J	0.019 U	mg/kg	MC-MW-40	166	8	5%	0.0017	0.019	0.019	NV	NV	0.034	C	0.039	SCO	N	E
	959-98-8	Endosulfan I	0.00033 J	0.0094 U	mg/kg	MC-MW-40	165	3	2%	0.00084	0.0094	0.0094	<0.007	NV	47	NC	4.8	SCO	N	E
	33213-65-9	Endosulfan II	0.00056 J	0.026 U	mg/kg	MC-MW-40	166	2	2%	0.0017	0.026	0.026	NV	NV	47	NC	4.8	SCO	N	E

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	1031-07-8	Endosulfan sulfate	0.00039 J	0.021 U	mg/kg	MC-MW-20	166	9	6%	0.0017	0.021	0.021	NV	NV	38	NC	4.8	SCO	N	E
	72-20-8	Endrin	0.00043 J	0.019 U	mg/kg	MC-MW-40	166	9	6%	0.0017	0.019	0.019	NV	NV	1.9	NC	2.2	SCO	N	E
	7421-93-4	Endrin aldehyde	0.0006 J	0.019 U	mg/kg	MC-MW-40	165	6	4%	0.0017	0.019	0.019	NV	NV	NV	NV			Y	D
	53494-70-5	Endrin ketone	0.0018 U	0.023 U	mg/kg	MC-MW-40	165	0	0%	0.0018	0.023	0.023	NV	NV	NV	NV			Y	D
	58-89-9	gamma-Benzenehexachloride	0.00022 J	0.0094 U	mg/kg	MC-MW-40	166	13	8%	0.00084	0.0094	0.0094	NV	NV	0.57	C	0.28	SCO	N	E
	76-44-8	Heptachlor	0.00024 J	0.022 U	mg/kg	MC-PZ-05	166	30	19%	0.00084	0.022	0.022	NV	NV	0.13	C	0.42	SCO	N	E
	1024-57-3	Heptachlor epoxide	0.00022 J	0.0087 U	mg/kg	MC-MW-27	166	9	6%	0.00084	0.0087	0.0087	<0.0058	NV	0.07	C	0.077	SSCO	N	E
	72-43-5	Methoxychlor	0.0022 J	0.076 U	mg/kg	MC-MW-40	166	1	1%	0.0068	0.076	0.076	NV	NV	32	NC	100	SSCO	N	E
	8001-35-2	Toxaphene	0.033 U	0.37 U	mg/kg	MC-MW-40	166	0	0%	0.033	0.37	0.37	NV	NV	0.49	C			N	E
	5103-74-2	trans-Chlordane	0.00036 J	0.0094 U	mg/kg	MC-MW-40	164	7	5%	0.00084	0.0094	0.0094	<0.007	NV	3.6	NC	0.54	SSCO	N	E
	Phenols																			
	58-90-2	2,3,4,6-Tetrachlorophenol	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	190	NC			N	E
	95-95-4	2,4,5-Trichlorophenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	630	NC	100	SSCO	N	E
	88-06-2	2,4,6-Trichlorophenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	6.3	NC			N	E
	120-83-2	2,4-Dichlorophenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	19	NC	100	SSCO	N	E
	95-57-8	2-Chlorophenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	39	NC	100	SSCO	N	E
	87-86-5	Pentachlorophenol	0.17 U	4.4 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.4	4.4	NV	NV	1	C	2.4	SCO	Y	C, G
	Semi-Volatiles																			
	120-82-1	1,2,4-Trichlorobenzene	0.004 UJ	0.47 U	mg/kg	MC-MW-39	187	0	0%	0.004	0.47	0.47	NV	NV	5.8	NC			N	E
	95-50-1	1,2-Dichlorobenzene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	187	0	0%	0.004	0.35	0.35	NV	NV	180	NC	100	SCO	N	E
	541-73-1	1,3-Dichlorobenzene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	187	0	0%	0.004	0.35	0.35	NV	NV	1.7	NC	17	SCO	N	E
	106-46-7	1,4-Dichlorobenzene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	187	0	0%	0.004	0.35	0.35	NV	NV	2.6	C	9.8	SCO	N	E
	105-67-9	2,4-Dimethylphenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	1	1%	0.033	0.87	0.87	NV	NV	130	NC			N	E
	51-28-5	2,4-Dinitrophenol	1 U	26 U	mg/kg	MC-MW-27	166	0	0%	1	26	26	NV	NV	13	NC	100	SSCO	Y	C
	121-14-2	2,4-Dinitrotoluene	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	1.7	C			Y	C
	606-20-2	2,6-Dinitrotoluene	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	0.36	C	1.03	SSCO	Y	C
	91-58-7	2-Chloronaphthalene	0.033 U	0.86 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.86	0.86	NV	NV	480	NC			N	E
	95-48-7	2-Methylphenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	1	1%	0.033	0.87	0.87	<0.99	NV	320	NC	100	SCO	N	E
	88-75-5	2-Nitrophenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	NV	NV			Y	D
	91-94-1	3,3'-Dichlorobenzidine	0.33 U	8.7 U	mg/kg	MC-MW-27	164	0	0%	0.33	8.7	8.7	NV	NV	1.2	C			Y	C
	534-52-1	4,6-Dinitro-2-methylphenol	0.5 U	13 U	mg/kg	MC-MW-27	166	0	0%	0.5	13	13	NV	NV	0.51	NC			Y	C
	101-55-3	4-Bromophenyl-phenylether	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	NV	NV			Y	D
	59-50-7	4-Chloro-3-methylphenol	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	630	NC			N	E
	106-47-8	4-Chloroaniline	0.067 U	1.9 U	mg/kg	Multiple Locations	166	0	0%	0.067	1.9	1.9	NV	NV	2.7	C	100	SSCO	N	E
	7005-72-3	4-Chlorophenyl-phenyl ether	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	NV	NV			Y	D
	106-44-5	4-Methylphenol	0.028 J	0.87 U	mg/kg	MC-MW-27	166	3	2%	0.033	0.87	0.87	NV	NV	630	NC	34	SCO	N	E
	100-02-7	4-Nitrophenol	0.5 U	13 U	mg/kg	MC-MW-27	166	0	0%	0.5	13	13	NV	NV	NV	NV			Y	D
	98-86-2	Acetophenone	0.024 J	0.87 U	mg/kg	MC-MW-27	166	6	4%	0.033	0.87	0.87	NV	NV	780	NC			N	E
	100-52-7	Benzaldehyde	0.091 J	18 J	mg/kg	MC-MW-20	166	20	13%	0.17	4.3	18	NV	NV	170	C			N	E
	85-68-7	Benzyl n-butyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	290	C	100	SSCO	N	E
	111-91-1	bis(2-Chloroethoxy)methane	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	19	NC			N	E
	111-44-4	Bis(2-chloroethyl)ether	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	0.23	C			Y	C
	117-81-7	bis(2-Ethylhexyl)phthalate	0.13 J	5.1	mg/kg	MC-MW-20	166	4	3%	0.17	4.4	5.1	NV	NV	39	C	50	SSCO	N	E
	105-60-2	Caprolactam	0.083 J	4.3 U	mg/kg	MC-MW-27	166	1	1%	0.17	4.3	4.3	NV	NV	3100	NC			N	E
	84-66-2	Diethyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	5100	NC			N	E
	131-11-3	Dimethyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	NV	NV	100	SSCO	Y	D
	84-74-2	Di-n-butyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	166	1	1%	0.17	4.3	4.3	NV	NV	630	NC	100	SSCO	N	E

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TABLE B1.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency: No. Samples	Detection Frequency: No. Detects	Frequency of Detect (2)	Range of Detection Limits: Min SQL	Range of Detection Limits: Max SQL	Concentration Used for Screening (3) (4) (5)	Background Value: Source Distant (6)	Background Value: Near Source (6)	Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
	117-84-0	Di-n-octylphthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	63	NC	100	SSCO	N	E
	118-74-1	Hexachlorobenzene	0.008 J	0.44 U	mg/kg	MC-MW-27	166	1	1%	0.017	0.44	0.44	NV	NV	0.21	C	0.33	SCO	Y	C, G
	87-68-3	Hexachlorobutadiene	0.033 U	0.9 U	mg/kg	MC-MW-40	166	0	0%	0.033	0.9	0.9	NV	NV	1.2	C			N	E
	77-47-4	Hexachlorocyclopentadiene	0.5 U	13 U	mg/kg	MC-MW-27	162	0	0%	0.5	13	13	NV	NV	0.18	NC			Y	C
	67-72-1	Hexachloroethane	0.17 U	4.3 U	mg/kg	MC-MW-27	166	0	0%	0.17	4.3	4.3	NV	NV	1.8	C			Y	C
	78-59-1	Isophorone	0.027 J	0.87 U	mg/kg	MC-MW-27	166	1	1%	0.033	0.87	0.87	NV	NV	570	C	100	SSCO	N	E
	98-95-3	Nitrobenzene	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	5.1	C	3.7	SSCO	N	E
	621-64-7	N-Nitrosodi-n-propylamine	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	0.078	C			Y	C
	86-30-6	N-Nitrosodiphenylamine	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	110	C			N	E
	108-95-2	Phenol	0.021 J	0.87 U	mg/kg	MC-MW-27	166	7	5%	0.033	0.87	0.87	NV	NV	1900	NC	100	SCO	N	E
	Volatiles																			
	71-55-6	1,1,1-Trichloroethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	810	NC	100	SCO	N	E
	79-34-5	1,1,2,2-Tetrachloroethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	187	0	0%	0.004	0.35	0.35	NV	NV	0.6	C	35	SSCO	N	E
	79-00-5	1,1,2-Trichloroethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.15	NC			Y	C
	75-34-3	1,1-Dichloroethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	3.6	C	19	SCO	N	E
	75-35-4	1,1-Dichloroethene	0.004 UJ	0.35 UJ	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	23	NC	100	SCO	N	E
	87-61-6	1,2,3-Trichlorobenzene	0.004 UJ	0.47 U	mg/kg	MC-MW-39	187	0	0%	0.004	0.47	0.47	NV	NV	6.3	NC			N	E
	95-94-3	1,2,4,5-Tetrachlorobenzene	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	2.3	NC			N	E
	96-12-8	1,2-Dibromo-3-chloropropane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	187	0	0%	0.004	0.35	0.35	NV	NV	0.0053	C			Y	C
	106-93-4	1,2-Dibromoethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.036	C			Y	C
	107-06-2	1,2-Dichloroethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.46	C	2.3	SCO	N	E
	78-87-5	1,2-Dichloropropane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	1.6	NC			N	E
	123-91-1	1,4-Dioxane	0.33 U	8.7 U	mg/kg	MC-MW-27	166	0	0%	0.33	8.7	8.7	NV	NV	5.3	C	9.8	SCO	Y	C
	78-93-3	2-Butanone	0.007 U	0.7 U	mg/kg	MC-SS-16	188	5	3%	0.007	0.7	0.7	NV	NV	2700	NC	100	SCO	N	E
	591-78-6	2-Hexanone	0.007 U	0.7 U	mg/kg	MC-SS-16	188	0	0%	0.007	0.7	0.7	NV	NV	20	NC			N	E
	108-10-1	4-Methyl-2-pentanone	0.007 U	0.7 U	mg/kg	MC-SS-16	188	0	0%	0.007	0.7	0.7	NV	NV	3300	NC			N	E
	67-64-1	Acetone	0.006 J	1.4 U	mg/kg	MC-SS-16	188	37	20%	0.015	1.4	1.4	NV	NV	6100	NC	100	SCO	N	E
	71-43-2	Benzene	0.004 UJ	0.55	mg/kg	MC-GP-18	188	1	1%	0.004	0.35	0.55	NV	NV	1.2	C	2.9	SCO	N	E
	39638-32-9	Bis(2-chloroisopropyl) ether	0.033 U	0.87 U	mg/kg	MC-MW-27	166	0	0%	0.033	0.87	0.87	NV	NV	NV	NV			Y	D
	74-97-5	Bromochloromethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	15	NC			N	E
	75-27-4	Bromodichloromethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.29	C			Y	C
	75-25-2	Bromoform	0.004 UJ	0.47 U	mg/kg	MC-MW-39	188	0	0%	0.004	0.47	0.47	NV	NV	19	C			N	E
	74-83-9	Bromomethane	0.004 UJ	0.35 UJ	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.68	NC			N	E
	75-15-0	Carbon disulfide	0.002 J	0.35 UJ	mg/kg	MC-SS-16	188	2	2%	0.004	0.35	0.35	NV	NV	77	NC	100	SSCO	N	E
	56-23-5	Carbon Tetrachloride	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.65	C	1.4	SCO	N	E
	108-90-7	Chlorobenzene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	28	NC	100	SCO	N	E
	75-00-3	Chloroethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	1400	NC			N	E
	67-66-3	Chloroform	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.32	C	10	SCO	Y	C
	74-87-3	Chloromethane	0.004 UJ	0.35 UJ	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	11	NC			N	E
	156-59-2	cis-1,2-Dichloroethene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	16	NC	59	SCO	N	E
	10061-01-5	cis-1,3-Dichloropropene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	1.8	C			N	E
	110-82-7	Cyclohexane	0.004 UJ	0.35 UJ	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	650	NC			N	E
	124-48-1	Dibromochloromethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	8.3	C			N	E
	75-71-8	Dichlorodifluoromethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	8.7	NC			N	E
	100-41-4	Ethylbenzene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	5.8	C	30	SCO	N	E
	98-82-8	Isopropylbenzene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	1	1%	0.004	0.35	0.35	NV	NV	190	NC	100	SSCO	N	E
	179601-23-1	m,p-Xylene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	1	1%	0.004	0.35	0.35	0.0024	0.0068	55	NC			N	E

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TABLE B1.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Future Off-Site Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident
Medium: Soil
Exposure Medium: Soil, Off-Site, Upper Depth < 10 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (6)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	79-20-9	Methyl acetate	0.002 J	3.4 J	mg/kg	MC-SS-16	188	8	5%	0.004	0.24	3.4	NV	NV	7800	NC			N	E
	1634-04-4	Methyl tert-butyl ether	0.0007 J	0.35 U	mg/kg	MC-SS-16	188	1	1%	0.004	0.35	0.35	NV	NV	47	C	62	SCO	N	E
	108-87-2	Methylcyclohexane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	650	NC			N	E
	75-09-2	Methylene Chloride	0.003 J	0.35 U	mg/kg	MC-SS-16	188	2	2%	0.004	0.35	0.35	NV	NV	35	NC	51	SCO	N	E
	95-47-6	o-Xylene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	65	NC			N	E
	100-42-5	Styrene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	600	NC			N	E
	127-18-4	Tetrachloroethene	0.001 J	0.35 U	mg/kg	MC-SS-16	188	1	1%	0.004	0.35	0.35	NV	NV	8.1	NC	5.5	SCO	N	E
	108-88-3	Toluene	0.0009 J	1.4	mg/kg	MC-GP-18	188	2	2%	0.004	0.35	1.4	<0.0012	NV	490	NC	100	SCO	N	E
	156-60-5	trans-1,2-Dichloroethene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	7	NC	0.19	SCO	Y	G
	10061-02-6	trans-1,3-Dichloropropene	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	1.8	C			N	E
	79-01-6	Trichloroethene	0.0009 J	0.35 U	mg/kg	MC-SS-16	188	5	3%	0.004	0.35	0.35	NV	NV	0.41	NC	10	SCO	N	E
	75-69-4	Trichlorofluoromethane	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	2300	NC			N	E
	76-13-1	Trichlorotrifluoroethane	0.007 U	0.7 U	mg/kg	MC-SS-16	188	0	0%	0.007	0.7	0.7	NV	NV	670	NC	100	SSCO	N	E
	75-01-4	Vinyl Chloride	0.004 UJ	0.35 U	mg/kg	MC-SS-16	188	0	0%	0.004	0.35	0.35	NV	NV	0.059	C	0.21	SCO	Y	C, G

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
mg/kg = milligram per kilogram
RSBC = rural soil background concentration
SCO = NYS DEC Soil Cleanup Objective, Unrestricted
SCO-b = NYS DEC Soil Cleanup Objective, Unrestricted, based on background
SSCO = NYS DEC Supplemental Soil Cleanup Objective, Unrestricted
SL = screening level
SQL = sample quantitation limit

Footnotes

(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).

(2) Shaded box indicates frequency of detection is less than 5%.

(3) Total B(a)P Equivalents are a sum of cPAH analytes after multiplication by a Toxic Equivalency Factor (TEF): Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Indeno[1,2,3-cd]pyrene. Individual cPAH concentrations used for screening are multipled by their TEF. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(4) Total PCBs are sum of aroclors. The minimum and maximum of those results are provided here. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(5) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.

(6) Background threshold value for soil is from NYSDEC (2006) rural soils survey of New York state. NYSDEC refers to this value as a Rural Soil Background Concentration (RSBC).

(7) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.11.

(8) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%, and max detect > RSBC; B) retain: max detect > SL; note that FOD < 5% or max detect ≤ RSBC; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL; F) delete: essential nutrient; G) retain: max detect > ARAR/TBC; H) retain due to retained B(a)P equivalents.

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TABLE B1.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current/Future Commercial/Industrial Worker Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Commercial/Industrial Worker
Medium: Soil
Exposure Medium: Soil, All McCaffrey Street Project Area, Upper Depth < 1 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5)	Background Value (5)		Screening Value (7)	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (8)
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
Soil - McCaffrey St. Project Area, On-Site and Off-Site	PFAS																			
	375-73-5	Perfluorobutanesulfonic acid	0.00024 J	0.0045 U	mg/kg	MC-SS-12	183	3	2%	0.00049	0.0045	0.0045	NV	NV	25	NC			N	E
	335-76-2	Perfluorodecanoic acid	0.00024 J	0.0036 J	mg/kg	MC-SS-08	183	65	36%	0.0004	0.0011	0.0036	NV	NV	NV	NV			Y	D
	307-55-1	Perfluorododecanoic acid	0.00023 J	0.0047 J	mg/kg	MC-SS-20	183	35	20%	0.00049	0.0022	0.0047	NV	NV	NV	NV			Y	D
	375-85-9	Perfluoroheptanoic acid	0.00027 J	0.056	mg/kg	MC-GP-01B	183	30	17%	0.00049	0.0017	0.056	NV	NV	NV	NV			Y	D
	355-46-4	Perfluorohexane sulfonic acid	0.00049 U	0.0045 U	mg/kg	MC-SS-12	183	0	0%	0.00049	0.0045	0.0045	NV	NV	NV	NV			Y	D
	307-24-4	Perfluorohexanoic acid	0.00011 J	0.054	mg/kg	MC-GP-01A	183	67	37%	0.00033	0.0011	0.054	NV	NV	NV	NV			Y	D
	375-95-1	Perfluorononanoic acid	0.000086 J	0.0011 U	mg/kg	Multiple Locations	183	58	32%	0.00033	0.0011	0.0011	NV	NV	NV	NV			Y	D
	1763-23-1	Perfluorooctanesulfonic acid	0.00032 J	0.0048	mg/kg	MC-SS-21	183	77	43%	0.00074	0.0045	0.0048	NV	NV	0.44	NC			N	E
	335-67-1	Perfluorooctanoic acid	0.00019 J	2	mg/kg	MC-GP-01A	183	172	94%	0.00054	0.00071	2	NV	NV	0.5	NC			Y	A
	376-06-7	Perfluorotetradecanoic acid	0.00019 J	0.02 J	mg/kg	MC-SS-20	183	26	15%	0.00049	0.0022	0.02	NV	NV	NV	NV			Y	D
	72629-94-8	Perfluorotridecanoic acid	0.00019 J	0.0045 J	mg/kg	MC-SS-20	183	18	10%	0.00049	0.0034	0.0045	NV	NV	NV	NV			Y	D
	2058-94-8	Perfluoroundecanoic acid	0.00025 J	0.0018 J	mg/kg	MC-SS-20	183	40	22%	0.00049	0.0017	0.0018	NV	NV	NV	NV			Y	D
	Metals																			
	7429-90-5	Aluminum	2300	26700	mg/kg	MC-SB-02	132	132	100%	NV	NV	26700	17000	14400	110000	NC			N	E
	7440-36-0	Antimony	0.107 J	3.87 J	mg/kg	MC-MW-06	132	126	96%	0.301	0.458	3.87	<2.7	NV	47	NC			N	E
	7440-38-2	Arsenic	2.12	34.7 J	mg/kg	MC-SB-02	132	132	100%	NV	NV	34.7	14	14.1	3	C	16	SCO-b	Y	A, G
	7440-39-3	Barium	16.7	254 J	mg/kg	MC-SS-08	132	132	100%	NV	NV	254	312	188	22000	NC	400	SCO	N	E
	7440-41-7	Beryllium	0.168 J	1.14	mg/kg	MC-MW-40	132	132	100%	NV	NV	1.14	1.1	1.3	230	NC	590	SCO	N	E
	7440-43-9	Cadmium	0.0509 J	3.32 J	mg/kg	MC-SB-02	132	131	100%	0.189	0.189	3.32	2.7	2.3	98	NC	9.3	SCO	N	E
	7440-70-2	Calcium	349	191000	mg/kg	MC-MW-36	132	132	100%	NV	NV	191000	46400	56500	NV	NV			N	F
	7440-47-3	Chromium	5.87	83.6	mg/kg	MC-SS-15	132	132	100%	NV	NV	83.6	22	17.5	6.3	NC	1500	SCO	Y	A
	7440-48-4	Cobalt	2.46	25.7 J	mg/kg	MC-SS-02	132	132	100%	NV	NV	25.7	14.8	24.1	35	NC			N	E
	7440-50-8	Copper	5.24 J	125 J	mg/kg	MC-MW-35	132	132	100%	NV	NV	125	61	29.6	4700	NC	270	SCO	N	E
	7439-89-6	Iron	7040	44900	mg/kg	MC-SB-02	132	132	100%	NV	NV	44900	27600	25700	82000	NC			N	E
	7439-92-1	Lead	5.75	596	mg/kg	MC-SS-11	132	132	100%	NV	NV	596	75	133	400	NC	1000	SCO	Y	A
	7439-95-4	Magnesium	2590	51500	mg/kg	MC-MW-32	132	132	100%	NV	NV	51500	7790	31400	NV	NV			N	F
	7439-96-5	Manganese	124	1360	mg/kg	MC-PZ-08	132	132	100%	NV	NV	1360	1760	1560	2600	NC	10000	SCO	N	E
	7439-97-6	Mercury	0.0129 J	0.746	mg/kg	MC-SS-15	132	129	98%	0.103	0.144	0.746	0.27	0.28	4.6	NC	2.8	SCO	N	E
	7440-02-0	Nickel	6.15 J	48.6 J	mg/kg	MC-SS-02	132	132	100%	NV	NV	48.6	26	29.5	2200	NC	310	SCO	N	E
	7440-09-7	Potassium	439	3770 J	mg/kg	MC-SB-02	132	132	100%	NV	NV	3770	2180	1660	NV	NV			N	F
	7782-49-2	Selenium	0.11 J	2.76	mg/kg	MC-SS-10	132	128	97%	0.317	0.691	2.76	5.7	4.4	580	NC	1500	SCO	N	E
	7440-22-4	Silver	0.0222 J	0.926	mg/kg	MC-SS-16	132	128	97%	0.0945	0.22	0.926	1.3	0.4	580	NC	1500	SCO	N	E
	7440-23-5	Sodium	22 J	1280	mg/kg	MC-MW-37	132	102	78%	149	394	1280	269	806	NV	NV			N	F
	7440-28-0	Thallium	0.0264 J	0.301 J	mg/kg	MC-MW-09	132	132	100%	NV	NV	0.301	NV	NV	1.2	NC			N	E
	7440-62-2	Vanadium	8.72 J	33.9 J	mg/kg	MC-MW-09	132	132	100%	NV	NV	33.9	38	25.9	580	NC			N	E
	7440-66-6	Zinc	27	329	mg/kg	MC-SS-08	132	132	100%	NV	NV	329	180	109	35000	NC	10000	SCO	N	E
	PAH																			
	92-52-4	1,1"-Biphenyl	0.022 J	0.87 U	mg/kg	MC-MW-27	132	4	4%	0.034	0.87	0.87	NV	NV	20	NC			N	E
	91-57-6	2-Methylnaphthalene	0.004 J	0.77	mg/kg	MC-SS-09	132	93	71%	0.018	0.44	0.77	<0.0027	NV	300	NC			N	E
	88-74-4	2-Nitroaniline	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	800	NC			N	E
	99-09-2	3-Nitroaniline	0.12 J	4.3 U	mg/kg	MC-MW-27	132	2	2%	0.17	4.3	4.3	NV	NV	NV	NV			Y	D
	100-01-6	4-Nitroaniline	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	110	C			N	E
	83-32-9	Acenaphthene	0.004 J	1.7	mg/kg	MC-PZ-06	132	42	32%	0.018	0.44	1.7	<0.035	0.15	4500	NC	500	SCO	N	E
	208-96-8	Acenaphthylene	0.004 J	5.8	mg/kg	MC-MW-20	130	98	76%	0.018	0.44	5.8	0.11	0.5	10	NC	500	SCO	N	E
	120-12-7	Anthracene	0.004 J	4.7	mg/kg	MC-MW-20	132	94	72%	0.018	0.44	4.7	0.12	0.62	23000	NC	500	SCO	N	E

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TABLE B1.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current/Future Commercial/Industrial Worker Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Commercial/Industrial Worker
Medium: Soil
Exposure Medium: Soil, All McCaffrey Street Project Area, Upper Depth < 1 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency No. Samples	Detection Frequency No. Detects	Frequency of Detect	Range of Detection Limits Min SQL	Range of Detection Limits Max SQL	Concentration Used for Screening	Background Value Source Distant	Background Value Near Source	Screening Value	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
	56-55-3	Benzo[a]anthracene	0.004 J	18	mg/kg	MC-MW-20	132	123	94%	0.019	0.44	1.8	0.5	2.9	2.1	C	5.6	SCO	Y	H
	50-32-8	Benzo[a]pyrene	0.004 J	11	mg/kg	MC-MW-20	132	124	94%	0.019	0.44	11	0.47	2.4	2.1	C	1	SCO-b	Y	H
	205-99-2	Benzo[b]fluoranthene	0.006 J	24	mg/kg	MC-MW-20	132	126	96%	0.019	0.17	2.4	0.59	3.3	2.1	C	5.6	SCO	Y	H
	191-24-2	Benzo[g,h,i]perylene	0.005 J	6.1	mg/kg	MC-MW-20	132	121	92%	0.018	0.19	6.1	0.2	0.63	10	NC	500	SCO	N	E
	207-08-9	Benzo[k]fluoranthene	0.004 J	8.7	mg/kg	MC-MW-20	132	115	88%	0.018	0.44	0.87	0.33	1.5	2.1	C	56	SCO	Y	H
	218-01-9	Chrysene	0.005 J	19	mg/kg	MC-MW-20	132	126	96%	0.019	0.17	0.019	0.61	1.3	2.1	C	56	SCO	Y	H
	53-70-3	Dibenzo[a,h]anthracene	0.004 J	2.7	mg/kg	MC-MW-20	132	80	61%	0.018	0.44	2.7	<0.046	NV	2.1	C	0.56	SCO	Y	H
	132-64-9	Dibenzofuran	0.019 J	1.4	mg/kg	MC-PZ-06	132	11	9%	0.034	0.87	1.4	0.053	0.18	120	NC	350	SCO	N	E
	206-44-0	Fluoranthene	0.006 J	41	mg/kg	MC-MW-20	132	126	96%	0.019	0.44	41	1.2	7.4	3000	NC	500	SCO	N	E
	86-73-7	Fluorene	0.004 J	2	mg/kg	MC-PZ-06	132	57	44%	0.018	0.44	2	0.087	0.58	3000	NC	500	SCO	N	E
	193-39-5	Indeno[1,2,3-cd]pyrene	0.004 J	6.9	mg/kg	MC-MW-20	132	115	88%	0.018	0.44	0.69	0.18	0.66	2.1	C	5.6	SCO	Y	H
	91-20-3	Naphthalene	0.004 J	1.1	mg/kg	MC-PZ-06	132	98	75%	0.018	0.44	1.1	0.024	0.017	2.1	C	500	SCO	N	E
	85-01-8	Phenanthrene	0.004 J	17	mg/kg	MC-PZ-06	132	126	96%	0.019	0.44	17	0.77	8.5	10	NC	500	SCO	Y	A
	129-00-0	Pyrene	0.004 J	36	mg/kg	MC-MW-20	132	128	97%	0.019	0.17	36	1.1	8.7	2300	NC	500	SCO	N	E
		Total B(a)P Equivalents (3)	0.0004 J	19.5	mg/kg	MC-MW-20	132	128	97%	0.018	0.44	19.5	0.652	3.135	NV	NV			Y	A
PCBs																				
	12674-11-2	Aroclor 1016	0.017 UJ	0.038 U	mg/kg	MC-SS-13	132	0	0%	0.017	0.038	0.038	NV	NV	5.1	NC			N	E
	11104-28-2	Aroclor 1221	0.017 UJ	0.038 U	mg/kg	MC-SS-13	132	0	0%	0.017	0.038	0.038	NV	NV	5.1	NC			N	E
	11141-16-5	Aroclor 1232	0.017 UJ	0.038 U	mg/kg	MC-SS-13	132	0	0%	0.017	0.038	0.038	NV	NV	5.1	NC			N	E
	53469-21-9	Aroclor 1242	0.0054 J	0.038 U	mg/kg	MC-SS-13	132	2	2%	0.017	0.038	0.038	NV	NV	5.1	NC			N	E
	12672-29-6	Aroclor 1248	0.017 UJ	0.038 U	mg/kg	MC-SS-13	132	0	0%	0.017	0.038	0.038	NV	NV	0.97	C			N	E
	11097-69-1	Aroclor 1254	0.0087 J	0.038 U	mg/kg	MC-SS-13	132	11	9%	0.017	0.038	0.038	NV	NV	0.97	C			N	E
	11096-82-5	Aroclor 1260	0.0086 J	0.12	mg/kg	MC-MW-16	132	31	24%	0.017	0.038	0.12		0.032	0.97	C			N	E
	37324-23-5	Aroclor 1262	0.0057 J	0.038 U	mg/kg	MC-SS-13	132	3	3%	0.017	0.038	0.038	NV	NV	0.97	NV			N	E
	11100-14-4	Aroclor 1268	0.0082 J	0.038 U	mg/kg	MC-SS-13	132	2	2%	0.017	0.038	0.038	NV	NV	0.97	NV			N	E
	1336-36-3	Total PCB Aroclors (4)	0.0054 J	0.12	mg/kg	MC-MW-16	132	45	35%	0.017	0.038	0.12	NV	NV	0.94	C	1	SCO	N	E
Pesticides																				
	72-54-8	4,4"-DDD	0.00039 J	0.019 U	mg/kg	MC-MW-40	132	13	10%	0.0017	0.019	0.019	<0.0049	NV	2.5	NC	92	SCO	N	E
	72-55-9	4,4"-DDE	0.00043 J	0.019 U	mg/kg	MC-MW-40	132	52	40%	0.0017	0.019	0.019	NV	NV	9.3	C	62	SCO	N	E
	50-29-3	4,4"-DDT	0.00043 J	0.059	mg/kg	MC-MW-34	132	79	60%	0.0017	0.019	0.059	NV	NV	8.5	C	47	SCO	N	E
	309-00-2	Aldrin	0.00028 J	0.0087 U	mg/kg	MC-MW-27	132	3	3%	0.00085	0.0087	0.0087	NV	NV	0.18	C	0.68	SCO	N	E
	319-84-6	alpha-Benzenehexachloride	0.00024 J	0.0094 U	mg/kg	MC-MW-40	132	19	15%	0.00085	0.0094	0.0094	NV	NV	0.36	C	3.4	SCO	N	E
	1912-24-9	Atrazine	0.17 U	5.1 U	mg/kg	MC-MW-40	132	0	0%	0.17	5.1	5.1	NV	NV	10	C			N	E
	319-85-7	beta-Benzenehexachloride	0.001 U	0.011 U	mg/kg	MC-MW-40	131	7	6%	0.001	0.011	0.011	NV	NV	1.3	C	3	SCO	N	E
	86-74-8	Carbazole	0.021 J	2.1	mg/kg	MC-PZ-06	132	24	19%	0.034	0.87	2.1	NV	NV	NV	NV			Y	D
	5103-71-9	cis-Chlordane	0.00023 J	0.0094 U	mg/kg	MC-MW-40	132	18	14%	0.00085	0.0094	0.0094	<0.007	NV	50	NC	24	SCO	N	E
	319-86-8	delta-Benzenehexachloride	0.00069 J	0.011 U	mg/kg	MC-MW-40	131	4	4%	0.00092	0.011	0.011	NV	NV	740	NC	500	SCO	N	E
	60-57-1	Dieldrin	0.00037 J	0.019 U	mg/kg	MC-MW-40	132	8	7%	0.0017	0.019	0.019	NV	NV	0.14	C	1.4	SCO	N	E
	959-98-8	Endosulfan I	0.00033 J	0.0094 U	mg/kg	MC-MW-40	131	7	6%	0.00085	0.0094	0.0094	<0.007	NV	700	NC	200	SCO	N	E
	33213-65-9	Endosulfan II	0.00056 J	0.026 U	mg/kg	MC-MW-40	132	2	2%	0.0017	0.026	0.026	NV	NV	700	NC	200	SCO	N	E
	1031-07-8	Endosulfan sulfate	0.00039 J	0.021 U	mg/kg	MC-MW-20	132	6	5%	0.0017	0.021	0.021	NV	NV	490	NC	200	SCO	N	E
	72-20-8	Endrin	0.00053 J	0.019 U	mg/kg	MC-MW-40	132	14	11%	0.0017	0.019	0.019	NV	NV	25	NC	89	SCO	N	E
	7421-93-4	Endrin aldehyde	0.0006 J	0.019 U	mg/kg	MC-MW-40	131	9	7%	0.0017	0.019	0.019	NV	NV	NV	NV			Y	D
	53494-70-5	Endrin ketone	0.0018 U	0.023 U	mg/kg	MC-MW-40	131	0	0%	0.0018	0.023	0.023	NV	NV	NV	NV			Y	D
	58-89-9	gamma-Benzenehexachloride	0.00025 J	0.0094 U	mg/kg	MC-MW-40	132	8	7%	0.00085	0.0094	0.0094	NV	NV	2.5	C	9.2	SCO	N	E
	76-44-8	Heptachlor	0.00021 J	0.022 U	mg/kg	MC-PZ-05	132	34	26%	0.00085	0.022	0.022	NV	NV	0.63	C	15	SCO	N	E
	1024-57-3	Heptachlor epoxide	0.00022 J	0.0087 U	mg/kg	MC-MW-27	132	13	10%	0.00085	0.0087	0.0087	<0.0058	NV	0.33	C			N	E
	72-43-5	Methoxychlor	0.0022 J	0.076 U	mg/kg	MC-MW-40	132	1	1%	0.0069	0.076	0.076	NV	NV	410	NC			N	E
	8001-35-2	Toxaphene	0.034 U	0.37 U	mg/kg	MC-MW-40	132	0	0%	0.034	0.37	0.37	NV	NV	2.1	C			N	E
	5103-74-2	trans-Chlordane	0.00023 J	0.0094 U	mg/kg	MC-MW-40	131	12	10%	0.00085	0.0094	0.0094	<0.007	NV	50	NC			N	E

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TABLE B1.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current/Future Commercial/Industrial Worker Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Commercial/Industrial Worker
Medium: Soil
Exposure Medium: Soil, All McCaffrey Street Project Area, Upper Depth < 1 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect	Range of Detection Limits		Concentration Used for Screening	Background Value		Screening Value	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	Phenols																			
	58-90-2	2,3,4,6-Tetrachlorophenol	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	2500	NC			N	E
	95-95-4	2,4,5-Trichlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	8200	NC			N	E
	88-06-2	2,4,6-Trichlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	82	NC			N	E
	120-83-2	2,4-Dichlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	250	NC			N	E
	95-57-8	2-Chlorophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	580	NC			N	E
	87-86-5	Pentachlorophenol	0.18 UJ	4.4 U	mg/kg	MC-MW-27	132	0	0%	0.18	4.4	4.4	NV	NV	4	C	6.7	SCO	Y	C
	Semi-Volatiles																			
	120-82-1	1,2,4-Trichlorobenzene	0.004 U	0.47 U	mg/kg	MC-MW-39	140	0	0%	0.004	0.47	0.47	NV	NV	26	NC			N	E
	95-50-1	1,2-Dichlorobenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	930	NC	500	SCO	N	E
	541-73-1	1,3-Dichlorobenzene	0.0009 J	0.35 U	mg/kg	MC-SS-16	140	2	2%	0.004	0.35	0.35	NV	NV	28	NC	280	SCO	N	E
	106-46-7	1,4-Dichlorobenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	11	C	130	SCO	N	E
	105-67-9	2,4-Dimethylphenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	1	1%	0.034	0.87	0.87	NV	NV	1600	NC			N	E
	51-28-5	2,4-Dinitrophenol	1 U	26 U	mg/kg	MC-MW-27	131	0	0%	1	26	26	NV	NV	160	NC			N	E
	121-14-2	2,4-Dinitrotoluene	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	7.4	C			N	E
	606-20-2	2,6-Dinitrotoluene	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	1.5	C			N	E
	91-58-7	2-Chloronaphthalene	0.034 U	0.86 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.86	0.86	NV	NV	6000	NC			N	E
	95-48-7	2-Methylphenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	1	1%	0.034	0.87	0.87	<0.99	NV	4100	NC	500	SCO	N	E
	88-75-5	2-Nitrophenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	NV	NV			Y	D
	91-94-1	3,3"-Dichlorobenzidine	0.34 U	8.7 U	mg/kg	MC-MW-27	130	0	0%	0.34	8.7	8.7	NV	NV	5.1	C			Y	C
	534-52-1	4,6-Dinitro-2-methylphenol	0.52 U	13 U	mg/kg	MC-MW-27	132	0	0%	0.52	13	13	NV	NV	6.6	NC			Y	C
	101-55-3	4-Bromophenyl-phenylether	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	NV	NC			Y	D
	59-50-7	4-Chloro-3-methylphenol	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	8200	NC			N	E
	106-47-8	4-Chloroaniline	0.069 U	1.9 U	mg/kg	Multiple Locations	132	0	0%	0.069	1.9	1.9	NV	NV	11	C			N	E
	7005-72-3	4-Chlorophenyl-phenyl ether	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	NV	NV			Y	D
	106-44-5	4-Methylphenol	0.028 J	0.87 U	mg/kg	MC-MW-27	132	4	4%	0.034	0.87	0.87	NV	NV	8200	NC	500	SCO	N	E
	100-02-7	4-Nitrophenol	0.52 U	13 U	mg/kg	MC-MW-27	132	0	0%	0.52	13	13	NV	NV	NV	NV			Y	D
	98-86-2	Acetophenone	0.03 J	0.87 U	mg/kg	MC-MW-27	132	7	6%	0.034	0.87	0.87	NV	NV	12000	NC			N	E
	100-52-7	Benzaldehyde	0.077 J	18 J	mg/kg	MC-MW-20	132	34	26%	0.17	4.3	18	NV	NV	820	C			N	E
	85-68-7	Benzyl n-butyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	1200	C			N	E
	111-91-1	bis(2-Chloroethoxy)methane	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	250	NC			N	E
	111-44-4	Bis(2-chloroethyl)ether	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	1	C			N	E
	117-81-7	bis(2-Ethylhexyl)phthalate	0.13 J	5.1	mg/kg	MC-MW-20	132	5	4%	0.18	4.4	5.1	NV	NV	160	C			N	E
	105-60-2	Caprolactam	0.083 J	4.3 U	mg/kg	MC-MW-27	132	1	1%	0.17	4.3	4.3	NV	NV	40000	NC			N	E
	84-66-2	Diethyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	66000	NC			N	E
	131-11-3	Dimethyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	NV	NC			Y	D
	84-74-2	Di-n-butyl phthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	132	1	1%	0.17	4.3	4.3	NV	NV	8200	NC			N	E
	117-84-0	Di-n-octylphthalate	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	820	NC			N	E
	118-74-1	Hexachlorobenzene	0.008 J	0.44 U	mg/kg	MC-MW-27	132	1	1%	0.018	0.44	0.44	NV	NV	0.96	C	6	SCO	N	E
	87-68-3	Hexachlorobutadiene	0.034 U	0.9 U	mg/kg	MC-MW-40	132	0	0%	0.034	0.9	0.9	NV	NV	5.3	C			N	E
	77-47-4	Hexachlorocyclopentadiene	0.52 U	13 U	mg/kg	MC-MW-27	127	0	0%	0.52	13	13	NV	NV	0.75	NC			Y	C
	67-72-1	Hexachloroethane	0.17 U	4.3 U	mg/kg	MC-MW-27	132	0	0%	0.17	4.3	4.3	NV	NV	8	C			N	E
	78-59-1	Isophorone	0.027 J	0.87 U	mg/kg	MC-MW-27	132	1	1%	0.034	0.87	0.87	NV	NV	2400	C			N	E
	98-95-3	Nitrobenzene	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	22	C	69	SSCO	N	E
	621-64-7	N-Nitrosodi-n-propylamine	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	0.33	C			Y	C
	86-30-6	N-Nitrosodiphenylamine	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	470	C			N	E
	108-95-2	Phenol	0.021 J	0.87 U	mg/kg	MC-MW-27	132	8	7%	0.034	0.87	0.87	NV	NV	25000	NC	500	SCO	N	E

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TABLE B1.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current/Future Commercial/Industrial Worker Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Commercial/Industrial Worker
Medium: Soil
Exposure Medium: Soil, All McCaffrey Street Project Area, Upper Depth < 1 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect	Range of Detection Limits		Concentration Used for Screening	Background Value		Screening Value	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	Volatiles																			
	71-55-6	1,1,1-Trichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	3600	NC	500	SCO	N	E
	79-34-5	1,1,2,2-Tetrachloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	2.7	C			N	E
	79-00-5	1,1,2-Trichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	0.63	NC			N	E
	75-34-3	1,1-Dichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	16	C	240	SCO	N	E
	75-35-4	1,1-Dichloroethene	0.004 U	0.35 UJ	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	100	NC	500	SCO	N	E
	87-61-6	1,2,3-Trichlorobenzene	0.004 U	0.47 U	mg/kg	MC-MW-39	140	0	0%	0.004	0.47	0.47	NV	NV	93	NC			N	E
	95-94-3	1,2,4,5-Tetrachlorobenzene	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	35	NC			N	E
	96-12-8	1,2-Dibromo-3-chloropropane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	0.064	C			Y	C
	106-93-4	1,2-Dibromoethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	0.16	C			Y	C
	107-06-2	1,2-Dichloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	2	C	30	SCO	N	E
	78-87-5	1,2-Dichloropropane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	6.6	NC			N	E
	123-91-1	1,4-Dioxane	0.34 U	8.7 U	mg/kg	MC-MW-27	132	0	0%	0.34	8.7	8.7	NV	NV	24	C	130	SCO	N	E
	78-93-3	2-Butanone	0.008 U	0.7 U	mg/kg	MC-SS-16	140	4	3%	0.008	0.7	0.7	NV	NV	19000	NC	500	SCO	N	E
	591-78-6	2-Hexanone	0.008 U	0.7 U	mg/kg	MC-SS-16	140	0	0%	0.008	0.7	0.7	NV	NV	130	NC			N	E
	108-10-1	4-Methyl-2-pentanone	0.008 U	0.7 U	mg/kg	MC-SS-16	140	0	0%	0.008	0.7	0.7	NV	NV	14000	NC			N	E
	67-64-1	Acetone	0.006 J	1.4 U	mg/kg	MC-SS-16	140	31	23%	0.015	1.4	1.4	NV	NV	67000	NC	500	SCO	N	E
	71-43-2	Benzene	0.002 J	0.35 U	mg/kg	MC-SS-16	140	1	1%	0.004	0.35	0.35	NV	NV	5.1	C	44	SCO	N	E
	39638-32-9	Bis(2-chloroisopropyl) ether	0.034 U	0.87 U	mg/kg	MC-MW-27	132	0	0%	0.034	0.87	0.87	NV	NV	NV	NV			Y	D
	74-97-5	Bromochloromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	63	NC			N	E
	75-27-4	Bromodichloromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	1.3	C			N	E
	75-25-2	Bromoform	0.004 U	0.47 U	mg/kg	MC-MW-39	140	0	0%	0.004	0.47	0.47	NV	NV	86	C			N	E
	74-83-9	Bromomethane	0.004 U	0.35 UJ	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	3	NC			N	E
	75-15-0	Carbon disulfide	0.001 J	0.35 UJ	mg/kg	MC-SS-16	140	5	4%	0.004	0.35	0.35	NV	NV	350	NC			N	E
	56-23-5	Carbon Tetrachloride	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	2.9	C	22	SCO	N	E
	108-90-7	Chlorobenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	130	NC	500	SCO	N	E
	75-00-3	Chloroethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	5700	NC			N	E
	67-66-3	Chloroform	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	1.4	C	350	SCO	N	E
	74-87-3	Chloromethane	0.004 U	0.35 UJ	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	46	NC			N	E
	156-59-2	cis-1,2-Dichloroethene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	230	NC	500	SCO	N	E
	10061-01-5	cis-1,3-Dichloropropene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	8.2	C			N	E
	110-82-7	Cyclohexane	0.004 U	0.35 UJ	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	2700	NC			N	E
	124-48-1	Dibromochloromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	39	C			N	E
	75-71-8	Dichlorodifluoromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	37	NC			N	E
	100-41-4	Ethylbenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	1	1%	0.004	0.35	0.35	NV	NV	25	C	390	SCO	N	E
	98-82-8	Isopropylbenzene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	4	3%	0.004	0.35	0.35	NV	NV	990	NC			N	E
	179601-23-1	m,p-Xylene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	0.0024	0.0068	240	NC			N	E
	79-20-9	Methyl acetate	0.002 J	3.4 J	mg/kg	MC-SS-16	140	11	8%	0.004	0.017	3.4	NV	NV	120000	NC			N	E
	1634-04-4	Methyl tert-butyl ether	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	210	C	500	SCO	N	E
	108-87-2	Methylcyclohexane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	2700	NC			N	E
	75-09-2	Methylene Chloride	0.003 J	0.35 U	mg/kg	MC-SS-16	140	2	2%	0.004	0.35	0.35	NV	NV	320	NC	500	SCO	N	E
	95-47-6	o-Xylene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	280	NC			N	E
	100-42-5	Styrene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	3500	NC			N	E
	127-18-4	Tetrachloroethene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	39	NC	150	SCO	N	E
	108-88-3	Toluene	0.0009 J	0.35 U	mg/kg	MC-SS-16	140	1	1%	0.004	0.35	0.35	<0.0012	NV	4700	NC	500	SCO	N	E
	156-60-5	trans-1,2-Dichloroethene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	30	NC	500	SCO	N	E
	10061-02-6	trans-1,3-Dichloropropene	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	8.2	C			N	E
	79-01-6	Trichloroethene	0.0009 J	0.35 U	mg/kg	MC-SS-16	140	2	2%	0.004	0.35	0.35	NV	NV	1.9	NC	200	SCO	N	E

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TABLE B1.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL
Human Health Screening for the Current/Future Commercial/Industrial Worker Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Commercial/Industrial Worker
Medium: Soil
Exposure Medium: Soil, All McCaffrey Street Project Area, Upper Depth < 1 ft Below Ground Surface

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect	Range of Detection Limits		Concentration Used for Screening	Background Value		Screening Value	Noncancer/ Cancer (NC/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
							No. Samples	No. Detects		Min SQL	Max SQL		Source Distant	Near Source						
	75-69-4	Trichlorofluoromethane	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	35000	NC			N	E
	76-13-1	Trichlorotrifluoroethane	0.008 U	0.7 U	mg/kg	MC-SS-16	140	0	0%	0.008	0.7	0.7	NV	NV	2800	NC			N	E
	75-01-4	Vinyl Chloride	0.004 U	0.35 U	mg/kg	MC-SS-16	140	0	0%	0.004	0.35	0.35	NV	NV	1.7	C	13	SCO	N	E

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
mg/kg = milligram per kilogram
RSBC = rural soil background concentration
SCO = NYS DEC Soil Cleanup Objective, Unrestricted
SCO-b = NYS DEC Soil Cleanup Objective, Unrestricted, based on background
SSCO = NYS DEC Supplemental Soil Cleanup Objective, Unrestricted
SL = screening level
SQL = sample quantitation limit

Footnotes

(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).

(2) Shaded box indicates frequency of detection is less than 5%.

(3) Total B(a)P Equivalents are a sum of cPAH analytes after multiplication by a Toxic Equivalency Factor (TEF): Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Indeno[1,2,3-cd]pyrene. Individual cPAH concentrations used for screening are multipled by their TEF. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(4) Total PCBs are sum of aroclors. The minimum and maximum of those results are provided here. For samples with all non-detects, the maximum sample quantification limit is used for screening.

(5) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.

(6) Background threshold value for soil is from NYSDEC (2006) rural soils survey of New York state. NYSDEC refers to this value as a Rural Soil Background Concentration (RSBC).

(7) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.11.

(8) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%, and max detect > RSBC; B) retain: max detect > SL; note that FOD < 5% or max detect ≤ RSBC; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL; F) delete: essential nutrient; G) retain: max detect > ARAR/TBC; H) retain due to retained B(a)P equivalents.

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TABLE B1.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN GROUNDWATER
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Groundwater
Exposure Medium: Groundwater, All Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
Ground-water - Project Area On- and Off-Site	PFAS																		
	375-22-4	Heptafluorobutanoic acid	0.0019 J	6.5 U	µg/L	MC-MW-16	667	536	81%	0.0043	6.5	6.5	NV	0.1	NC			Y	A
	2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid	0.00049 J	3.2 U	µg/L	MC-MW-16	668	2	1%	0.0025	3.2	3.2	NV	0.1	NC			Y	C
	2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid	0.0017 U	3.2 U	µg/L	MC-MW-16	668	1	1%	0.0017	3.2	3.2	NV	0.1	NC			Y	C
	375-73-5	Perfluorobutanesulfonic acid	0.00029 J	1.1 U	µg/L	MC-MW-16	856	606	71%	0.00086	1.1	1.1	NV	0.6	NC			Y	A
	335-77-3	Perfluorodecane sulfonic acid	0.0017 U	2.2 U	µg/L	MC-MW-16	668	0	0%	0.0017	2.2	2.2	NV	0.1	NC			Y	C
	335-76-2	Perfluorodecanoic acid	0.0004 J	2.2 U	µg/L	MC-MW-16	849	103	13%	0.0017	2.2	2.2	NV	0.1	NC			Y	A
	307-55-1	Perfluorododecanoic acid	0.00029 J	2.2 U	µg/L	MC-MW-16	849	11	2%	0.00086	2.2	2.2	NV	0.1	NC			Y	C
	375-92-8	Perfluoroheptane sulfonate	0.00078 J	2.2 U	µg/L	MC-MW-16	668	3	1%	0.0017	2.2	2.2	NV	0.1	NC			Y	C
	375-85-9	Perfluoroheptanoic acid	0.0003 J	5.1 J	µg/L	MC-MW-16	856	792	93%	0.00086	0.025	5.1	NV	0.1	NC			Y	A
	355-46-4	Perfluorohexane sulfonic acid	0.00035 J	2.2 U	µg/L	MC-MW-16	856	383	45%	0.0017	2.2	2.2	NV	0.1	NC			Y	A
	307-24-4	Perfluorohexanoic acid	0.0003 J	6	µg/L	MC-MW-16	849	786	93%	0.0009	0.05	6	NV	0.1	NC			Y	A
	375-95-1	Perfluorononanoic acid	0.00037 J	2.2 U	µg/L	MC-MW-16	856	549	65%	0.0009	2.2	2.2	NV	0.1	NC			Y	A
	754-91-6	Perfluorooctane sulfonamide	0.00046 J	3.2 U	µg/L	MC-MW-16	668	29	5%	0.0017	3.2	3.2	NV	0.1	NC			Y	A
	1763-23-1	Perfluorooctanesulfonic acid	0.00036 J	2.2 U	µg/L	MC-MW-16	855	554	65%	0.0017	2.2	2.2	NV	0.04	NC	0.01	5-1.52*	Y	A, G
	335-67-1	Perfluorooctanoic acid	0.00027 J	220	µg/L	MC-MW-16	856	818	96%	0.00086	0.033	220	NV	0.04	NC	0.01	5-1.52*	Y	A, G
	2706-90-3	Perfluoropentanoic acid	0.00054 J	6.5 U	µg/L	MC-MW-16	668	513	77%	0.0017	6.5	6.5	NV	0.1	NC			Y	A
	376-06-7	Perfluorotetradecanoic acid	0.00032 J	1.1 U	µg/L	MC-MW-16	846	5	1%	0.00084	1.1	1.1	NV	0.1	NC			Y	C
	72629-94-8	Perfluorotridecanoic acid	0.00037 J	1.1 U	µg/L	MC-MW-16	849	6	1%	0.00084	1.1	1.1	NV	0.1	NC			Y	C
	2058-94-8	Perfluoroundecanoic acid	0.00037 J	2.2 U	µg/L	MC-MW-16	849	27	4%	0.0017	2.2	2.2	NV	0.1	NC			Y	C
	39108-34-4	Sodium 1H,1H,2H,2H-perfluordecane sulfonate (8:2)	0.0026 UJ	6.5 U	µg/L	MC-MW-16	668	0	0%	0.0026	6.5	6.5	NV	0.1	NC			Y	C
	27619-97-2	Sodium 1h,1h,2h,2h-perfluorooctane sulfonate (6:2)	0.0011 J	2.3 U	µg/L	MC-MW-16	668	12	2%	0.0017	2.3	2.3	NV	0.1	NC			Y	C
		Total PFAS (3)	0.00027 J	231 J	µg/L	MC-MW-16	856	833	97%	0.00084	6.5	231	NV	0.5	NC			Y	A
	Metals																		
	7429-90-5	Aluminum	20.7 J	242000	µg/L	MC-PZ-04S	761	263	35%	25	3000	242000	NV	NV	NV			Y	D
	7440-36-0	Antimony	0.41 J	4 U	µg/L	Multiple Locations	761	89	12%	1	4	4	NV	0.78	NC	6, 3	MCL, 6 NYCCR 703.5	Y	A, G
	7440-38-2	Arsenic	0.68 J	116	µg/L	MC-PZ-04S	761	352	47%	2	4	116	NV	0.052	C	10, 25	MCL, 6 NYCCR 703.5	Y	A, G
	7440-39-3	Barium	4.1	3370	µg/L	MC-MW-36I	761	761	100%	NV	NV	3370	NV	380	NC	2000, 1000	MCL	Y	A, G
	7440-41-7	Beryllium	0.075 J	11.1	µg/L	MC-MW-36I	761	75	10%	0.5	1	11.1	NV	2.5	NC	4	MCL	Y	A, G
	7440-43-9	Cadmium	0.15 J	7.4	µg/L	MC-MW-36I	761	55	8%	0.5	2	7.4	NV	0.92	NC	5, 5	MCL, 6 NYCCR 703.5	Y	A, G
	7440-70-2	Calcium	9860	2370000	µg/L	MC-MW-36I	761	761	100%	NV	NV	2370000	NV	NV	NV			N	F
	7440-47-3	Chromium	0.61 J	310	µg/L	MC-MW-36I	761	219	29%	2	8	310	NV	0.035	NC	100, 50	MCL, 6 NYCCR 703.5	Y	A, G
	7440-48-4	Cobalt	0.16 J	239	µg/L	MC-PZ-04S	761	405	54%	0.5	2.5	239	NV	0.6	NC			Y	A
	7440-50-8	Copper	0.38 J	597	µg/L	MC-MW-36I	761	257	34%	1	80	597	NV	80	NC	200	6 NYCCR 703.5	Y	A, G
	7439-89-6	Iron	40.7 J	651000	µg/L	MC-PZ-04S	761	526	70%	200	2000	651000	NV	1400	NC	300	5-1.52	Y	A, G
	7439-92-1	Lead	0.078 J	335	µg/L	MC-MW-36I	761	204	27%	0.5	6	335	NV	15	NC	25	6 NYCCR 703.5	Y	A, G
	7439-95-4	Magnesium	68.6 J	222000	µg/L	MC-PZ-04S	761	759	100%	112	118	222000	NV	NV	NV			N	F
	7439-96-5	Manganese	0.97 J	45300	µg/L	MC-MW-36I	761	670	89%	4	40	45300	NV	43	NC	300	5-1.52	Y	A, G
	7439-97-6	Mercury	0.05 J	0.38	µg/L	MC-PZ-04S	761	33	5%	0.2	0.2	0.38	NV	0.063	NC	2, 0.7	MCL, 6 NYCCR 703.5	Y	A
	7440-02-0	Nickel	0.61 J	505	µg/L	MC-PZ-04S	761	317	42%	1	12.6	505	NV	39	NC	100	6 NYCCR 703.5	Y	A, G
	7440-09-7	Potassium	230 J	44200	µg/L	MC-MW-36I	761	745	98%	791	1970	44200	NV	NV	NV			N	F
	7782-49-2	Selenium	0.29 J	4.2	µg/L	MC-MW-25S	761	188	25%	1	4	4.2	NV	10	NC	50, 10	MCL, 6 NYCCR 703.5	N	E
	7440-22-4	Silver	0.14 J	10 U	µg/L	Multiple Locations	761	17	3%	0.5	10	10	NV	9.4	NC	100, 50	5-1.52, 6 NYCCR 703.5	Y	C
	7440-23-5	Sodium	1290	2560000	µg/L	MC-MW-28S	761	760	100%	3160	3160	2560000	NV	NV	NV			N	F
	7440-28-0	Thallium	0.12 J	1.9	µg/L	MC-MW-36I	761	17	3%	0.5	1	1.9	NV	0.02	NC	2	MCL	Y	B
	7440-62-2	Vanadium	0.21 J	337	µg/L	MC-MW-36I	761	398	53%	0.5	2	337	NV	8.6	NC			Y	A
	7440-66-6	Zinc	3 J	9660	µg/L	MC-MW-01	761	323	43%	20	100	9660	NV	600	NC	5000	5-1.52	Y	A, G

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TABLE B1.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN GROUNDWATER
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Groundwater
Exposure Medium: Groundwater, All Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	PAH																		
	92-52-4	1,1'-Biphenyl	1 UJ	27 U	µg/L	MC-MW-08S	648	0	0%	1	27	27	NV	0.083	NC	5	6 NYCCR 703.5	Y	C, G
	91-57-6	2-Methylnaphthalene	0.2 J	2.5 U	µg/L	MC-MW-36I	648	1	1%	0.5	2.5	2.5	NV	3.6	NC			N	E
	88-74-4	2-Nitroaniline	1 UJ	19 U	µg/L	MC-MW-08S	648	0	0%	1	19	19	NV	19	NC	5	6 NYCCR 703.5	Y	G
	99-09-2	3-Nitroaniline	1 UJ	19 U	µg/L	MC-MW-08S	648	0	0%	1	19	19	NV	NV	NV	5	6 NYCCR 703.5	Y	D, G
	100-01-6	4-Nitroaniline	1 UJ	8 U	µg/L	MC-MW-08S	648	0	0%	1	8	8	NV	0.025	C	5	6 NYCCR 703.5	Y	C, G
	83-32-9	Acenaphthene	0.5 UJ	2.5 U	µg/L	MC-MW-36I	648	0	0%	0.5	2.5	2.5	NV	53	NC			N	E
	208-96-8	Acenaphthylene	0.5 UJ	2.5 U	µg/L	MC-MW-36I	648	0	0%	0.5	2.5	2.5	NV	NV	NV			Y	D
	120-12-7	Anthracene	0.1 J	2.5 U	µg/L	MC-MW-36I	648	2	1%	0.5	2.5	2.5	NV	180	NC			N	E
	56-55-3	Benzo[a]anthracene	0.1 J	2.5 U	µg/L	MC-MW-36I	648	1	1%	0.5	2.5	0.25	NV	0.025	C			Y	H
	50-32-8	Benzo[a]pyrene	0.2 J	2.5 U	µg/L	MC-MW-36I	648	1	1%	0.5	2.5	2.5	NV	0.025	C	0.2, ND	MCL, 6 NYCCR 703.5	Y	H
	205-99-2	Benzo[b]fluoranthene	0.2 J	2.5 U	µg/L	MC-MW-36I	648	2	1%	0.5	2.5	0.25	NV	0.025	C			Y	H
	191-24-2	Benzo[g,h,i]perylene	0.5 UJ	2.5 U	µg/L	MC-MW-36I	648	0	0%	0.5	2.5	2.5	NV	NV	NV			Y	D
	207-08-9	Benzo[k]fluoranthene	0.1 J	2.5 U	µg/L	MC-MW-36I	648	1	1%	0.5	2.5	0.25	NV	0.025	C			Y	H
	218-01-9	Chrysene	0.1 J	2.5 U	µg/L	MC-MW-36I	648	2	1%	0.5	2.5	0.0025	NV	0.025	C			Y	H
	53-70-3	Dibenzo[a,h]anthracene	0.5 UJ	2.5 U	µg/L	MC-MW-36I	648	0	0%	0.5	2.5	2.5	NV	0.025	C			Y	H
	132-64-9	Dibenzofuran	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	0.79	NC			Y	C
	206-44-0	Fluoranthene	0.1 J	2.5 U	µg/L	MC-MW-36I	648	5	1%	0.5	2.5	2.5	NV	80	NC			N	E
	86-73-7	Fluorene	0.5 UJ	3	µg/L	MC-MW-03	648	1	1%	0.5	2.5	3	NV	29	NC			N	E
	193-39-5	Indeno[1,2,3-cd]pyrene	0.2 J	2.5 U	µg/L	MC-MW-36I	648	1	1%	0.5	2.5	0.25	NV	0.025	C			Y	H
	91-20-3	Naphthalene	0.16 J	2.5 U	µg/L	MC-MW-36I	648	9	2%	0.5	2.5	2.5	NV	0.025	C			Y	C
	85-01-8	Phenanthrene	0.2 J	10	µg/L	MC-MW-03	648	4	1%	0.5	2.5	10	NV	12	NC			N	E
	129-00-0	Pyrene	0.1 J	2.5 U	µg/L	MC-MW-36I	648	5	1%	0.5	2.5	2.5	NV	12	NC			N	E
		Total B(a)P Equivalents (4)	0.0001 J	2.5 U	µg/L	MC-MW-36I	1944	8	0%	0.5	2.5	2.5	NV	0.025	C			Y	A
	PCBs																		
	12674-11-2	Aroclor 1016	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.14	NC			Y	C
	11104-28-2	Aroclor 1221	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.14	NC			Y	C
	11141-16-5	Aroclor 1232	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.14	NC			Y	C
	53469-21-9	Aroclor 1242	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.14	NC			Y	C
	12672-29-6	Aroclor 1248	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.0078	C			Y	C
	11097-69-1	Aroclor 1254	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.0078	C			Y	C
	11096-82-5	Aroclor 1260	0.4 UJ	170	µg/L	MC-MW-24	651	1	1%	0.4	2.6	170	NV	0.0078	C			Y	B
	37324-23-5	Aroclor 1262	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.0078	C			Y	C
	11100-14-4	Aroclor 1268	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	NV	0.0078	C			Y	C
	1336-36-3	Total PCB Aroclors (5)	0.4 UJ	170	µg/L	MC-MW-24	651	1	1%	0.4	40	170	NV	0.09	C	0.5, 0.09	MCL, 6 NYCCR 703.5	Y	B, G
	Pesticides																		
	72-54-8	4,4'-DDD	0.0064 J	0.17 U	µg/L	MC-MW-15	643	8	2%	0.016	0.17	0.17	NV	0.0063	NC	0.3	6 NYCCR 703.5	Y	C
	72-55-9	4,4'-DDE	0.0067 J	0.17 U	µg/L	MC-MW-15	643	2	1%	0.016	0.17	0.17	NV	0.046	C	0.2	6 NYCCR 703.5	Y	C
	50-29-3	4,4'-DDT	0.0051 J	0.17 U	µg/L	MC-MW-15	644	29	5%	0.016	0.17	0.17	NV	0.23	C	0.2	6 NYCCR 703.5	N	E
	309-00-2	Aldrin	0.0079 U	0.084 U	µg/L	MC-MW-15	634	0	0%	0.0079	0.084	0.084	NV	0.00092	C	ND	6 NYCCR 703.5	Y	C, G
	319-84-6	alpha-Benzenehexachloride	0.0024 J	0.084 U	µg/L	MC-MW-15	642	12	2%	0.0079	0.084	0.084	NV	0.0072	C	0.01	6 NYCCR 703.5	Y	C, G
	1912-24-9	Atrazine	5 UJ	25 U	µg/L	MC-MW-36I	648	0	0%	5	25	25	NV	0.3	C	3, 7.5	MCL, 6 NYCCR 703.5	Y	C, G
	319-85-7	beta-Benzenehexachloride	0.0028 J	0.084 U	µg/L	MC-MW-15	643	33	6%	0.0079	0.084	0.084	NV	0.025	C	0.04	6 NYCCR 703.5	Y	A, G
	86-74-8	Carbazole	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	NV	NV			Y	D
	5103-71-9	cis-Chlordane	0.0039 J	0.084 U	µg/L	MC-MW-15	643	2	1%	0.0079	0.084	0.084	NV	0.36	NC			N	E
	319-86-8	delta-Benzenehexachloride	0.0038 J	0.084 U	µg/L	MC-MW-15	643	5	1%	0.0079	0.084	0.084	NV	0.04	C	0.04	6 NYCCR 703.5	Y	C, G

GSI ENVIRONMENTAL

TABLE B1.5
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14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Groundwater
Exposure Medium: Groundwater, All Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	60-57-1	Dieldrin	0.0046 J	0.17 U	µg/L	MC-MW-15	643	7	2%	0.016	0.17	0.17	NV	0.0018	C	0.004	6 NYCCR 703.5	Y	C, G
	959-98-8	Endosulfan I	0.0043 J	0.084 U	µg/L	MC-MW-15	645	6	1%	0.0079	0.084	0.084	NV	10	NC			N	E
	33213-65-9	Endosulfan II	0.017 J	0.25 U	µg/L	MC-MW-15	643	2	1%	0.024	0.25	0.25	NV	10	NC			N	E
	1031-07-8	Endosulfan sulfate	0.0067 J	0.17 U	µg/L	MC-MW-15	643	3	1%	0.016	0.17	0.17	NV	11	NC			N	E
	72-20-8	Endrin	0.016 UJ	0.17 U	µg/L	MC-MW-15	643	0	0%	0.016	0.17	0.17	NV	0.23	NC	2, ND	MCL, 6 NYCCR 703.5	Y	G
	7421-93-4	Endrin aldehyde	0.079 U	0.84 U	µg/L	MC-MW-15	643	0	0%	0.079	0.84	0.84	NV	5	NC	5	6 NYCCR 703.5	N	E
	53494-70-5	Endrin ketone	0.0088 J	0.17 U	µg/L	MC-MW-15	643	3	1%	0.016	0.17	0.17	NV	5	NC	5	6 NYCCR 703.5	N	E
	58-89-9	gamma-Benzenehexachloride	0.0017 J	0.084 U	µg/L	MC-MW-15	643	6	1%	0.008	0.084	0.084	NV	0.042	C	0.2, 0.05	MCL, 6 NYCCR 703.5	Y	C, G
	76-44-8	Heptachlor	0.002 J	0.084 U	µg/L	MC-MW-15	643	8	2%	0.0079	0.084	0.084	NV	0.0014	C	0.4, 0.04	MCL, 6 NYCCR 703.5	Y	C, G
	1024-57-3	Heptachlor epoxide	0.0028 J	0.084 U	µg/L	MC-MW-15	643	3	1%	0.0079	0.084	0.084	NV	0.0014	C	0.2, 0.03	MCL, 6 NYCCR 703.5	Y	C, G
	72-43-5	Methoxychlor	0.046 J	0.84 U	µg/L	MC-MW-15	643	2	1%	0.079	0.84	0.84	NV	3.7	NC	40, 35	MCL, 6 NYCCR 703.5	N	E
	8001-35-2	Toxaphene	0.79 U	8.4 U	µg/L	MC-MW-15	643	0	0%	0.79	8.4	8.4	NV	0.071	C	3, 0.06	MCL, 6 NYCCR 703.5	Y	C, G
	5103-74-2	trans-Chlordane	0.0059 J	0.17 U	µg/L	MC-MW-15	643	13	3%	0.016	0.17	0.17	NV	1	NC			N	E
	Phenols																		
	58-90-2	2,3,4,6-Tetrachlorophenol	1 UJ	27 U	µg/L	MC-MW-08S	641	0	0%	1	27	27	NV	24	NC			Y	C
	95-95-4	2,4,5-Trichlorophenol	1 UJ	5 U	µg/L	Multiple Locations	640	0	0%	1	5	5	NV	120	NC			N	E
	88-06-2	2,4,6-Trichlorophenol	1 UJ	5 U	µg/L	Multiple Locations	640	0	0%	1	5	5	NV	1.2	NC			Y	C
	120-83-2	2,4-Dichlorophenol	1 UJ	5 U	µg/L	Multiple Locations	640	0	0%	1	5	5	NV	4.6	NC			Y	C
	95-57-8	2-Chlorophenol	1 UJ	5 U	µg/L	Multiple Locations	640	0	0%	1	5	5	NV	9.1	NC			N	E
	87-86-5	Pentachlorophenol	5 UJ	25 U	µg/L	MC-MW-36I	640	0	0%	5	25	25	NV	0.041	C	1	MCL	Y	C, G
	Semi-Volatiles																		
	120-82-1	1,2,4-Trichlorobenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	0.4	NC	70, 5	MCL, 6 NYCCR 703.5	Y	C
	95-50-1	1,2-Dichlorobenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	30	NC	600, 3	MCL, 6 NYCCR 703.5	Y	G
	541-73-1	1,3-Dichlorobenzene	0.4 J	5 U	µg/L	Multiple Locations	791	3	1%	5	5	5	NV	3	C	3	6 NYCCR 703.5	Y	C, G
	106-46-7	1,4-Dichlorobenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	0.48	C	75, 3	MCL, 6 NYCCR 703.5	Y	C, G
	105-67-9	2,4-Dimethylphenol	1 UJ	27 U	µg/L	MC-MW-08S	640	0	0%	1	27	27	NV	36	NC			N	E
	51-28-5	2,4-Dinitrophenol	28 U	150 U	µg/L	MC-MW-36I	640	0	0%	28	150	150	NV	3.9	NC			Y	C
	121-14-2	2,4-Dinitrotoluene	5 UJ	25 U	µg/L	MC-MW-36I	648	0	0%	5	25	25	NV	0.24	C	5	6 NYCCR 703.5	Y	C, G
	606-20-2	2,6-Dinitrotoluene	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	0.049	C	5	6 NYCCR 703.5	Y	C
	91-58-7	2-Chloronaphthalene	0.9 U	5 U	µg/L	MC-MW-36I	648	0	0%	0.9	5	5	NV	75	NC			N	E
	95-48-7	2-Methylphenol	1 UJ	5 U	µg/L	Multiple Locations	640	0	0%	1	5	5	NV	93	NC			N	E
	88-75-5	2-Nitrophenol	1 UJ	27 U	µg/L	MC-MW-08S	640	0	0%	1	27	27	NV	NV	NV			Y	D
	91-94-1	3,3'-Dichlorobenzidine	5 UJ	27 U	µg/L	MC-MW-08S	648	0	0%	5	27	27	NV	0.13	C	5	6 NYCCR 703.5	Y	C, G
	534-52-1	4,6-Dinitro-2-methylphenol	15 UJ	75 U	µg/L	MC-MW-36I	640	0	0%	15	75	75	NV	0.15	NC			Y	C
	101-55-3	4-Bromophenyl-phenylether	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	NV	NV			Y	D
	59-50-7	4-Chloro-3-methylphenol	1 UJ	5 U	µg/L	Multiple Locations	640	0	0%	1	5	5	NV	140	NC			N	E
	106-47-8	4-Chloroaniline	4 UJ	27 U	µg/L	MC-MW-08S	648	0	0%	4	27	27	NV	0.37	C	5	6 NYCCR 703.5	Y	C, G
	7005-72-3	4-Chlorophenyl-phenyl ether	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	NV	NV			Y	D
	106-44-5	4-Methylphenol	1 UJ	5 U	µg/L	Multiple Locations	640	0	0%	1	5	5	NV	190	NC			N	E
	100-02-7	4-Nitrophenol	28 U	150 U	µg/L	MC-MW-36I	640	0	0%	28	150	150	NV	NV	NV			Y	D
	98-86-2	Acetophenone	1 UJ	27 U	µg/L	MC-MW-08S	648	0	0%	1	27	27	NV	190	NC			N	E
	100-52-7	Benzaldehyde	5 UJ	27 U	µg/L	MC-MW-08S	647	0	0%	5	27	27	NV	19	C			Y	C
	85-68-7	Benzyl n-butyl phthalate	5 UJ	25 U	µg/L	MC-MW-36I	648	0	0%	5	25	25	NV	16	C			Y	C
	111-91-1	bis(2-Chloroethoxy)methane	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	5.9	NC	5	6 NYCCR 703.5	N	E
	111-44-4	Bis(2-chloroethyl)ether	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	0.014	C	1	6 NYCCR 703.5	Y	C, G
	117-81-7	bis(2-Ethylhexyl)phthalate	5 UJ	30 U	µg/L	MC-MW-08S	648	2	1%	5	30	30	NV	5.6	C	6, 5	MCL, 6 NYCCR 703.5	Y	C, G

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TABLE B1.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN GROUNDWATER
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Groundwater
Exposure Medium: Groundwater, All Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	105-60-2	Caprolactam	7 J	3200	µg/L	MC-MW-36I	648	47	8%	10	30	3200	NV	990	NC			Y	A
	84-66-2	Diethyl phthalate	5 UJ	25 U	µg/L	MC-MW-36I	648	0	0%	5	25	25	NV	1500	NC			N	E
	131-11-3	Dimethyl phthalate	5 UJ	25 U	µg/L	MC-MW-36I	648	0	0%	5	25	25	NV	NV	NV			Y	D
	84-74-2	Di-n-butyl phthalate	3 J	25 U	µg/L	MC-MW-36I	648	1	1%	5	25	25	NV	90	NC	50	6 NYCCR 703.5	N	E
	117-84-0	Di-n-octylphthalate	4 J	30 U	µg/L	MC-MW-08S	648	1	1%	5	30	30	NV	20	NC			Y	C
	118-74-1	Hexachlorobenzene	0.5 UJ	2.5 U	µg/L	MC-MW-36I	648	0	0%	0.5	2.5	2.5	NV	0.0098	C	1, 0.04	MCL, 6 NYCCR 703.5	Y	C, G
	87-68-3	Hexachlorobutadiene	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	0.14	C	0.5	6 NYCCR 703.5	Y	C, G
	77-47-4	Hexachlorocyclopentadiene	10 U	75 U	µg/L	MC-MW-36I	642	0	0%	10	75	75	NV	0.041	NC	50, 5	MCL, 6 NYCCR 703.5	Y	C, G
	67-72-1	Hexachloroethane	5 UJ	25 U	µg/L	MC-MW-36I	648	0	0%	5	25	25	NV	0.33	C	5	6 NYCCR 703.5	Y	C, G
	78-59-1	Isophorone	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	78	C			N	E
	98-95-3	Nitrobenzene	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	0.14	C	0.4	6 NYCCR 703.5	Y	C, G
	621-64-7	N-Nitrosodi-n-propylamine	1 UJ	8 U	µg/L	MC-MW-08S	648	0	0%	1	8	8	NV	0.011	C			Y	C
	86-30-6	N-Nitrosodiphenylamine	1 UJ	8 U	µg/L	MC-MW-08S	648	0	0%	1	8	8	NV	12	C			N	E
	108-95-2	Phenol	0.6 J	5 U	µg/L	Multiple Locations	640	2	1%	1	5	5	NV	580	NC			N	E
Volatiles																			
	71-55-6	1,1,1-Trichloroethane	0.3 J	1 U	µg/L	Multiple Locations	791	5	1%	1	1	1	NV	800	NC	200, 5	MCL, 6 NYCCR 703.5	N	E
	79-34-5	1,1,2,2-Tetrachloroethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.076	C	5	6 NYCCR 703.5	Y	C
	79-00-5	1,1,2-Trichloroethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.041	NC	5, 1	MCL, 6 NYCCR 703.5	Y	C
	75-34-3	1,1-Dichloroethane	0.3 J	24	µg/L	MC-MW-22	791	6	1%	1	1	24	NV	2.8	C	5	6 NYCCR 703.5	Y	B, G
	75-35-4	1,1-Dichloroethene	0.5 J	33	µg/L	MC-GP-13	791	5	1%	1	1	33	NV	28	NC	7, 5	MCL, 6 NYCCR 703.5	Y	B, G
	87-61-6	1,2,3-Trichlorobenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	0.7	NC	5	6 NYCCR 703.5	Y	C
	95-94-3	1,2,4,5-Tetrachlorobenzene	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	0.17	NC			Y	C
	96-12-8	1,2-Dibromo-3-chloropropane	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	0.00033	C	0.2,0.04	MCL, 6 NYCCR 703.5	Y	C, G
	106-93-4	1,2-Dibromoethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.0075	C	0.05, 0.0006	MCL, 6 NYCCR 703.5	Y	C, G
	107-06-2	1,2-Dichloroethane	0.4 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	NV	0.17	C	5, 0.6	MCL, 6 NYCCR 703.5	Y	C, G
	78-87-5	1,2-Dichloropropane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.82	NC	5, 1	MCL, 6 NYCCR 703.5	Y	C
	123-91-1	1,4-Dioxane	1.8 J	25 U	µg/L	MC-MW-36I	647	4	1%	5	25	25	NV	0.46	C	1	5-1.52*	Y	C, G
	78-93-3	2-Butanone	0.3 J	13	µg/L	MC-GP-05	791	18	3%	10	10	13	NV	560	NC			N	E
	591-78-6	2-Hexanone	10 UJ	10 U	µg/L	Multiple Locations	791	0	0%	10	10	10	NV	3.8	NC			Y	C
	108-10-1	4-Methyl-2-pentanone	0.5 J	10 U	µg/L	Multiple Locations	791	2	1%	10	10	10	NV	630	NC			N	E
	67-64-1	Acetone	0.7 J	34	µg/L	MC-GP-05	791	36	5%	20	20	34	NV	1400	NC			N	E
	71-43-2	Benzene	0.2 J	1 J	µg/L	MC-MW-31	791	4	1%	1	1	1	NV	0.46	C	5, 1	MCL, 6 NYCCR 703.5	Y	C
	39638-32-9	Bis(2-chloroisopropyl) ether	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	NV	NV	NV			Y	D
	74-97-5	Bromochloromethane	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	8.3	NC	5	6 NYCCR 703.5	N	E
	75-27-4	Bromodichloromethane	0.6 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	NV	0.13	C	80	MCL	Y	C
	75-25-2	Bromoform	4 UJ	4 U	µg/L	Multiple Locations	791	0	0%	4	4	4	NV	3.3	C	80	MCL	Y	C
	74-83-9	Bromomethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.75	NC	5	6 NYCCR 703.5	Y	C
	75-15-0	Carbon disulfide	0.2 J	11	µg/L	Multiple Locations	791	16	3%	5	5	11	NV	81	NC	60	6 NYCCR 703.5	N	E
	56-23-5	Carbon Tetrachloride	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.46	C	5, 5	MCL, 6 NYCCR 703.5	Y	C
	108-90-7	Chlorobenzene	0.3 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	NV	7.8	NC	100, 5	MCL, 6 NYCCR 703.5	N	E
	75-00-3	Chloroethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	2100	NC	5	6 NYCCR 703.5	N	E
	67-66-3	Chloroform	0.2 J	24	µg/L	MC-MW-19	791	18	3%	1	1	24	NV	0.22	C	80, 7	MCL, 6 NYCCR 703.5	Y	B, G
	74-87-3	Chloromethane	0.2 J	2	µg/L	MC-MW-24S	791	16	3%	1	1	2	NV	19	NC	5	6 NYCCR 703.5	N	E
	156-59-2	cis-1,2-Dichloroethene	0.2 J	67	µg/L	MC-GP-13	791	44	6%	1	1	67	NV	3.6	NC	70, 5	MCL, 6 NYCCR 703.5	Y	A, G
	10061-01-5	cis-1,3-Dichloropropene	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.47	C			Y	C
	110-82-7	Cyclohexane	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	1300	NC			N	E

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TABLE B1.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN GROUNDWATER
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Groundwater
Exposure Medium: Groundwater, All Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	124-48-1	Dibromochloromethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.87	C	80	MCL	Y	C
	75-71-8	Dichlorodifluoromethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	20	NC	5	6 NYCCR 703.5	N	E
	100-41-4	Ethylbenzene	1 UJ	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	NV	1.5	C	700, 5	MCL, 6 NYCCR 703.5	N	E
	98-82-8	Isopropylbenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	45	NC	5	6 NYCCR 703.5	N	E
	179601-23-1	m,p-Xylene	1 UJ	5 U	µg/L	Multiple Locations	791	0	0%	1	5	5	NV	19	NC			N	E
	79-20-9	Methyl acetate	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	2000	NC			N	E
	1634-04-4	Methyl tert-butyl ether	0.2 J	5	µg/L	Multiple Locations	791	28	4%	1	1	5	NV	14	C	10	5-1.52	N	E
	108-87-2	Methylcyclohexane	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	1300	NC			N	E
	75-09-2	Methylene Chloride	0.6 J	4 U	µg/L	Multiple Locations	791	4	1%	1	4	4	NV	11	NC	5, 5	MCL, 6 NYCCR 703.5	N	E
	95-47-6	o-Xylene	1 UJ	1 J	µg/L	MC-GP-05	791	1	1%	1	1	1	NV	19	NC	5	6 NYCCR 703.5	N	E
	100-42-5	Styrene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	NV	120	NC	100, 5	MCL, 6 NYCCR 703.5	N	E
	127-18-4	Tetrachloroethene	0.2 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	NV	4.1	NC	5, 5	MCL, 6 NYCCR 703.5	N	E
	108-88-3	Toluene	0.6 J	22	µg/L	MC-MW-19	791	3	1%	1	2	22	NV	110	NC	5	6 NYCCR 703.5	Y	G
	156-60-5	trans-1,2-Dichloroethene	0.2 J	12	µg/L	MC-GP-13	791	2	1%	1	1	12	NV	6.8	NC	100, 5	MCL, 6 NYCCR 703.5	Y	B, G
	10061-02-6	trans-1,3-Dichloropropene	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	0.47	C			Y	C
	79-01-6	Trichloroethene	0.2 J	270	µg/L	MC-GP-13	791	141	18%	1	1	270	NV	0.28	NC	5, 5	MCL, 6 NYCCR 703.5	Y	A, G
	75-69-4	Trichlorofluoromethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	NV	520	NC	5	6 NYCCR 703.5	N	E
	76-13-1	Trichlorotrifluoroethane	10 UJ	10 U	µg/L	Multiple Locations	791	0	0%	10	10	10	NV	1000	NC	5	6 NYCCR 703.5	Y	G
	75-01-4	Vinyl Chloride	0.2 UJ	1	µg/L	MC-GP-13	791	16	3%	1	1	1	NV	0.019	C	2, 2	MCL, 6 NYCCR 703.5	Y	C

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
MCL = U.S. Environmental Protection Agency maximum contaminant level
NC = noncarcinogen
ND = non detect
NV = no screening value available
SL = screening level
SQL = sample quantitation limit
µg/L = microgram per liter
5-1.52 = NYS CCR SubPart 5-1.52 maximum contaminant levels
5-1.52* = adopted, but not yet published NYS CCR SubPart 5-1.52 maximum contaminant levels
6 NYCCR 703.5 = New York Codes, Rules and Regulations Title 6, Part 703.5, Surface Water and Groundwater Quality Standards for Taste-, Color-, Odor-Producing, Toxic and Other Deleterious Substances. Last revised effective March 12, 1998.

Footnotes
(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).
(2) Shaded box indicates frequency of detection is less than 5%.
(3) Total PFAS are the sum of PFAS. For samples with all non-detects, the maximum sample quantification limit is used for screening. The minimum and maximum of those results are provided here
(4) Total B(a)P Equivalents are a sum of cPAH analytes after multiplication by a Toxic Equivalency Factor (TEF): Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Indeno[1,2,3-cd]pyrene. Individual cPAH concentrations used for screening are multipled by their TEF. For samples with all non-detects, the maximum sample quantification limit is used for screening.
(5) Total PCBs are sum of aroclors. For samples with all non-detects, the maximum sample quantification limit is used for screening. The minimum and maximum of those results are provided here.
(6) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.
(7) There are no applicable background values for chemicals in groundwater.
(8) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.11.
(9) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%, and max detect > RSBC; B) retain: max detect > SL; note that FOD < 5% or max detect ≤ RSBC; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL; F) delete: essential nutrient; G) retain: max detect > ARAR/TBC; H) retain due to retained B(a)P equivalents.

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TABLE B1.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SEDIMENT
Human Health Screening for the Current/Future Resident/Recreator Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current and Future
Receptor: Resident and Recreator
Medium: Sediment
Exposure Medium: Sediment, All Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (4)	Background Value (4)	Screening Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								
Sediment - McCaffrey St. Project Area, On- and Off-Site	PFAS																		
	375-73-5	Perfluorobutanesulfonic acid	0.0006 U	0.0032 U	mg/kg	MC-SED-06	14	0	0%	0.0006	0.0032	0.0032	NV	1.9	NC			N	E
	335-76-2	Perfluorodecanoic acid	0.00043 U	0.0011 U	mg/kg	MC-SED-17	14	2	15%	0.00043	0.0011	0.0011	NV	NV	NV			Y	D
	307-55-1	Perfluorododecanoic acid	0.0006 U	0.0016 U	mg/kg	MC-SED-06	14	0	0%	0.0006	0.0016	0.0016	NV	NV	NV			Y	D
	375-85-9	Perfluoroheptanoic acid	0.0006 U	0.0012 UJ	mg/kg	MC-SED-06	14	0	0%	0.0006	0.0012	0.0012	NV	NV	NV			Y	D
	355-46-4	Perfluorohexane sulfonic acid	0.0006 U	0.0032 U	mg/kg	MC-SED-06	14	0	0%	0.0006	0.0032	0.0032	NV	NV	NV			Y	D
	307-24-4	Perfluorohexanoic acid	0.0004 U	0.0008 U	mg/kg	MC-SED-06	14	0	0%	0.0004	0.0008	0.0008	NV	NV	NV			Y	D
	375-95-1	Perfluorononanoic acid	0.0004 U	0.0008 U	mg/kg	MC-SED-06	14	0	0%	0.0004	0.0008	0.0008	NV	NV	NV			Y	D
	1763-23-1	Perfluorooctanesulfonic acid	0.00059 J	0.0032 U	mg/kg	MC-SED-06	14	5	36%	0.0009	0.0032	0.0032	NV	0.00066	NC			Y	A
	335-67-1	Perfluorooctanoic acid	0.00035 J	0.0074	mg/kg	MC-SED-14	14	9	65%	0.00064	0.001	0.0074	NV	0.00088	NC			Y	A
	376-06-7	Perfluorotetradecanoic acid	0.0006 U	0.0016 U	mg/kg	MC-SED-06	14	0	0%	0.0006	0.0016	0.0016	NV	NV	NV			Y	D
	72629-94-8	Perfluorotridecanoic acid	0.0006 U	0.0024 U	mg/kg	MC-SED-06	14	0	0%	0.0006	0.0024	0.0024	NV	NV	NV			Y	D
	2058-94-8	Perfluoroundecanoic acid	0.0006 U	0.0012 U	mg/kg	MC-SED-06	14	0	0%	0.0006	0.0012	0.0012	NV	NV	NV			Y	D

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
mg/kg = milligram per kilogram
NC = noncarcinogen
ND = non detect
NV = no screening value available
SL = screening level
SQL = sample quantitation limit

Footnotes

(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).
(2) Shaded box indicates frequency of detection is less than 5%.
(3) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.
(4) There are no applicable background values for chemicals in sediment.
(5) The sources for all risk-based screening levels are further described in Tables B2.1 - 2.11.

(6) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%; B) retain: max detect > SL; note that FOD < 5%; C) retain: max ND > SL; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL; F) delete: essential nutrient; G) retain: max detect > ARAR/TBC.

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TABLE B1.7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SURFACE WATER
Human Health Screening for the Current/Future Resident/Recreator Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident and Recreator
Medium: Surface Water
Exposure Medium: Surface Water, All McCaffrey Street Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
Surface Water, On- and Off-Site	PFAS																		
	375-22-4	Heptafluorobutanoic acid	0.0029 J	0.0093 J	µg/L	MC-SW-03	20	2	10%	0.0051	0.006	0.0093	NV	0.1	NC			N	E
	2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid	0.0025 U	0.0049 U	µg/L	MC-SW-03	20	0	0%	0.0025	0.0049	0.0049	NV	NV	NV			Y	D
	2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid	0.0025 UJ	0.0049 U	µg/L	MC-SW-03	20	0	0%	0.0025	0.0049	0.0049	NV	NV	NV			Y	D
	375-73-5	Perfluorobutanesulfonic acid	0.00032 J	0.01 U	µg/L	Multiple Locations	31	20	65%	0.003	0.01	0.01	NV	0.6	NC			N	E
	335-77-3	Perfluorodecane sulfonic acid	0.0017 U	0.0033 U	µg/L	MC-SW-03	20	0	0%	0.0017	0.0033	0.0033	NV	0.1	NC			N	E
	335-76-2	Perfluorodecanoic acid	0.0017 U	0.0033 U	µg/L	MC-SW-03	31	0	0%	0.0017	0.0033	0.0033	NV	0.1	NC			N	E
	307-55-1	Perfluorododecanoic acid	0.0009 U	0.005 U	µg/L	Multiple Locations	31	0	0%	0.0009	0.005	0.005	NV	0.1	NC			N	E
	375-92-8	Perfluoroheptane sulfonate	0.0017 U	0.0033 U	µg/L	MC-SW-03	20	0	0%	0.0017	0.0033	0.0033	NV	NV	NV			Y	D
	375-85-9	Perfluoroheptanoic acid	0.00047 J	0.013	µg/L	MC-UNNAME BROOK 2-UP	31	27	88%	0.002	0.002	0.013	NV	0.1	NC			N	E
	355-46-4	Perfluorohexane sulfonic acid	0.0004 J	0.01 U	µg/L	Multiple Locations	31	12	39%	0.0018	0.01	0.01	NV	0.1	NC			N	E
	307-24-4	Perfluorohexanoic acid	0.00045 J	0.009 J	µg/L	MC-CB-SW	31	28	91%	0.002	0.002	0.009	NV	0.1	NC			N	E
	375-95-1	Perfluorononanoic acid	0.00046 J	0.002 U	µg/L	Multiple Locations	31	4	13%	0.0017	0.002	0.002	NV	0.1	NC			N	E
	754-91-6	Perfluorooctane sulfonamide	0.00067 J	0.0049 UJ	µg/L	MC-SW-03	20	4	20%	0.0025	0.0049	0.0049	NV	0.1	NC			N	E
	1763-23-1	Perfluorooctanesulfonic acid	0.00062 J	0.01 U	µg/L	Multiple Locations	31	23	75%	0.006	0.01	0.01	NV	0.04	NC			N	E
	335-67-1	Perfluorooctanoic acid	0.007	0.5	µg/L	MC-UNNAME BROOK 2-UP	31	31	100%	NV	NV	0.5	NV	0.04	NC			Y	A
	2706-90-3	Perfluoropentanoic acid	0.0022 J	0.006 U	µg/L	Multiple Locations	20	2	10%	0.0051	0.006	0.006	NV	0.1	NC			N	E
	376-06-7	Perfluorotetradecanoic acid	0.00085 U	0.005 U	µg/L	Multiple Locations	31	0	0%	0.00085	0.005	0.005	NV	0.1	NC			N	E
	72629-94-8	Perfluorotridecanoic acid	0.00085 U	0.004 U	µg/L	Multiple Locations	31	0	0%	0.00085	0.004	0.004	NV	0.1	NC			N	E
	2058-94-8	Perfluoroundecanoic acid	0.0017 U	0.004 U	µg/L	Multiple Locations	31	0	0%	0.0017	0.004	0.004	NV	0.1	NC			N	E
	39108-34-4	Sodium 1H,1H,2H,2H-perfluordecane sulfonate (8:2)	0.0051 U	0.0099 U	µg/L	MC-SW-03	20	0	0%	0.0051	0.0099	0.0099	NV	0.1	NC			N	E
	27619-97-2	Sodium 1h,1h,2h,2h-perfluorooctane sulfonate (6:2)	0.0017 U	0.008 U	µg/L	MC-SW-03	20	0	0%	0.0017	0.008	0.008	NV	0.1	NC			N	E
		Total PFAS (3)	0.0083 J	0.538 J	µg/L	MC-UNNAME BROOK 2-UP	31	31	100%	0.00085	0.01	0.538	NV	0.5	NC			Y	A
	Metals																		
	7429-90-5	Aluminum	118 J	2660	µg/L	MC-SW-03	29	17	59%	300	600	2660	NV	2000	NC			Y	A
	7440-36-0	Antimony	0.55 J	4 U	µg/L	Multiple Locations	29	1	4%	2	4	4	NV	0.78	NC	5.6	AWQC	Y	C
	7440-38-2	Arsenic	1.1 J	4 U	µg/L	Multiple Locations	29	3	11%	2	4	4	NV	0.052	C	0.018	AWQC	Y	A, G
	7440-39-3	Barium	4.8	129 J	ug/L	MC-SW-04	29	29	100%	NV	NV	129	NV	380	NC	1000	AWQC	N	E
	7440-41-7	Beryllium	0.5 U	1 U	µg/L	Multiple Locations	29	0	0%	0.5	1	1	NV	2.5	NC			N	E
	7440-43-9	Cadmium	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	0.92	NC			Y	C
	7440-70-2	Calcium	9300	35100	µg/L	MC-SW-02	29	29	100%	NV	NV	35100	NV	NV	NV			N	F
	7440-47-3	Chromium	0.63 J	8 U	µg/L	Multiple Locations	29	12	42%	4	8	8	NV	0.035	NC			Y	A
	7440-48-4	Cobalt	0.19 J	2 U	µg/L	Multiple Locations	29	8	28%	1	2	2	NV	0.6	NC			Y	A
	7440-50-8	Copper	1.2 J	80 U	µg/L	Multiple Locations	29	7	25%	4	80	80	NV	80	NC	1300	AWQC	N	E
	7439-89-6	Iron	91.9 J	2270	µg/L	MC-SW-03	29	29	100%	NV	NV	2270	NV	1400	NC			Y	A
	7439-92-1	Lead	0.16 J	6 U	µg/L	Multiple Locations	29	14	49%	3	6	6	NV	15	NC			N	E
	7439-95-4	Magnesium	2380	10500	µg/L	MC-SW-02	29	29	100%	NV	NV	10500	NV	NV	NV			N	F
	7439-96-5	Manganese	14.7	60.3	µg/L	MC-SW-03	29	29	100%	NV	NV	60.3	NV	43	NC	50	AWQC	Y	A, G
	7439-97-6	Mercury	0.2 U	0.2 U	µg/L	Multiple Locations	29	0	0%	0.2	0.2	0.2	NV	0.063	NC	0.0007	6 NYCCR 703.5	Y	C, G
	7440-02-0	Nickel	1 J	8 U	µg/L	Multiple Locations	29	5	18%	4	8	8	NV	39	NC	610	AWQC	N	E
	7440-09-7	Potassium	589	4080	µg/L	MC-SW-03	29	29	100%	NV	NV	4080	NV	NV	NV			N	F
	7782-49-2	Selenium	1.7 J	4 U	µg/L	Multiple Locations	29	1	4%	2	4	4	NV	10	NC	170	AWQC	N	E
	7440-22-4	Silver	0.5 UJ	1.1 J	µg/L	MC-SW-04	29	1	4%	0.5	1	1.1	NV	9.4	NC			N	E
	7440-23-5	Sodium	3320	28300	µg/L	MC-SW-04	29	29	100%	NV	NV	28300	NV	NV	NV			N	F
	7440-28-0	Thallium	0.5 U	1 U	µg/L	Multiple Locations	29	0	0%	0.5	1	1	NV	0.02	NC	0.24	AWQC	Y	C, G
	7440-62-2	Vanadium	0.25 J	2.9	µg/L	MC-SW-03	29	20	69%	1	2	2.9	NV	8.6	NC			N	E
	7440-66-6	Zinc	3.1 J	40 U	µg/L	Multiple Locations	29	8	28%	20	40	40	NV	600	NC	7400	AWQC	N	E

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TABLE B1.7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SURFACE WATER
Human Health Screening for the Current/Future Resident/Recreator Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident and Recreator
Medium: Surface Water
Exposure Medium: Surface Water, All McCaffrey Street Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	PAH																		
	92-52-4	1,1'-Biphenyl	1 U	12 U	µg/L	Multiple Locations	29	0	0%	1	12	12	NV	0.083	NC			Y	C
	91-57-6	2-Methylnaphthalene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	3.6	NC			N	E
	88-74-4	2-Nitroaniline	1 UJ	9 U	µg/L	MC-SW-02	29	0	0%	1	9	9	NV	19	NC			N	E
	99-09-2	3-Nitroaniline	1 U	9 U	µg/L	MC-SW-02	29	0	0%	1	9	9	NV	NV	NV			Y	D
	100-01-6	4-Nitroaniline	1 U	4 U	µg/L	MC-SW-02	29	0	0%	1	4	4	NV	0.025	C			Y	C
	83-32-9	Acenaphthene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	53	NC	70	AWQC	N	E
	208-96-8	Acenaphthylene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	NV	NV			Y	D
	120-12-7	Anthracene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	180	NC	300	AWQC	N	E
	56-55-3	Benzo[a]anthracene	0.5 U	0.6 U	ug/L	Multiple Locations	29	0	0%	0.5	0.6	0.06	NV	0.025	C	0.0012	AWQC	Y	H
	50-32-8	Benzo[a]pyrene	0.5 U	0.6 U	ug/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	0.025	C	0.00012	AWQC	Y	H
	205-99-2	Benzo[b]fluoranthene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.06	NV	0.025	C	0.0012	AWQC	Y	H
	191-24-2	Benzo[g,h,i]perylene	0.5 UJ	0.6 U	ug/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	NV	NV			Y	D
	207-08-9	Benzo[k]fluoranthene	0.5 U	0.6 U	ug/L	Multiple Locations	29	0	0%	0.5	0.6	0.06	NV	0.025	C	0.012	AWQC	Y	H
	218-01-9	Chrysene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.0006	NV	0.025	C	0.12	AWQC	Y	H
	53-70-3	Dibenzo[a,h]anthracene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	0.025	C	0.00012	AWQC	Y	H
	132-64-9	Dibenzofuran	1 U	2 U	ug/L	Multiple Locations	29	0	0%	1	2	2	NV	0.79	NC			Y	C
	206-44-0	Fluoranthene	0.5 U	0.6 U	ug/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	80	NC	20	AWQC	N	E
	86-73-7	Fluorene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	29	NC	50	AWQC	N	E
	193-39-5	Indeno[1,2,3-cd]pyrene	0.5 U	0.6 U	ug/L	Multiple Locations	29	0	0%	0.5	0.6	0.06	NV	0.025	C	0.0012	AWQC	Y	H
	91-20-3	Naphthalene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	0.025	C			Y	C
	85-01-8	Phenanthrene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	12	NC			N	E
	129-00-0	Pyrene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	12	NC	20	AWQC	N	E
		Total B(a)P Equivalents (4)	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	0.025	C			Y	A
	PCBs																		
	12674-11-2	Aroclor 1016	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.14	NC			Y	C
	11104-28-2	Aroclor 1221	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.14	NC			Y	C
	11141-16-5	Aroclor 1232	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.14	NC			Y	C
	53469-21-9	Aroclor 1242	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.14	NC			Y	C
	12672-29-6	Aroclor 1248	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.0078	C			Y	C
	11097-69-1	Aroclor 1254	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.0078	C			Y	C
	11096-82-5	Aroclor 1260	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.0078	C			Y	C
	37324-23-5	Aroclor 1262	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.0078	C			Y	C
	11100-14-4	Aroclor 1268	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.0078	C			Y	C
	1336-36-3	Total PCB Aroclors (5)	0.4 U	0.57 U	µg/L	MC-SW-02	29	0	0%	0.4	0.57	0.57	NV	0.09	C	0.014, 0.000001	AWQC, 6 NYCCR 703.5	Y	C, G
	Pesticides																		
	72-54-8	4,4'-DDD	0.0052 J	0.023 U	µg/L	MC-SW-02	29	1	4%	0.016	0.023	0.023	NV	0.0063	NC	0.00012, 0.00008	AWQC, 6 NYCCR 703.5	Y	C, G
	72-55-9	4,4'-DDE	0.016 U	0.023 U	µg/L	MC-SW-02	29	0	0%	0.016	0.023	0.023	NV	0.046	C	0.000018, 0.000007	AWQC, 6 NYCCR 703.5	Y	G
	50-29-3	4,4'-DDT	0.016 U	0.023 U	µg/L	MC-SW-02	29	0	0%	0.016	0.023	0.023	NV	0.23	C	0.00003, 0.00001	AWQC, 6 NYCCR 703.5	Y	G
	309-00-2	Aldrin	0.008 U	0.011 U	µg/L	Multiple Locations	29	0	0%	0.008	0.011	0.011	NV	0.00092	C	0.00000077, 0.001	AWQC, 6 NYCCR 703.5	Y	C, G
	319-84-6	alpha-Benzenehexachloride	0.008 U	0.011 U	µg/L	Multiple Locations	29	0	0%	0.008	0.011	0.011	NV	0.0072	C	0.00036, 0.002	AWQC, 6 NYCCR 703.5	Y	C, G
	1912-24-9	Atrazine	5 U	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	0.3	C			Y	C
	319-85-7	beta-Benzenehexachloride	0.0028 J	0.011 U	µg/L	Multiple Locations	29	2	7%	0.008	0.011	0.011	NV	0.025	C	0.008, 0.007	AWQC, 6 NYCCR 703.5	Y	G
	86-74-8	Carbazole	1 UJ	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	85	C			N	E
	5103-71-9	cis-Chlordane	0.008 U	0.011 U	µg/L	Multiple Locations	29	0	0%	0.008	0.011	0.011	NV	0.36	NC			N	E
	319-86-8	delta-Benzenehexachloride	0.008 U	0.011 U	µg/L	Multiple Locations	29	0	0%	0.008	0.011	0.011	NV	0.04	C	0.008	6 NYCCR 703.5	Y	G
	60-57-1	Dieldrin	0.016 U	0.023 U	µg/L	MC-SW-02	29	0	0%	0.016	0.023	0.023	NV	0.0018	C	0.0000012, 0.0000006	AWQC, 6 NYCCR 703.5	Y	C, G
	959-98-8	Endosulfan I	0.008 U	0.011 U	µg/L	Multiple Locations	29	0	0%	0.008	0.011	0.011	NV	2	NC	20	AWQC	N	E
	33213-65-9	Endosulfan II	0.024 U	0.034 U	µg/L	MC-SW-02	29	0	0%	0.024	0.034	0.034	NV	2	NC	20	AWQC	N	E

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TABLE B1.7
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McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident and Recreator
Medium: Surface Water
Exposure Medium: Surface Water, All McCaffrey Street Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	1031-07-8	Endosulfan sulfate	0.016 U	0.023 U	µg/L	MC-SW-02	29	0	0%	0.016	0.023	0.023	NV	11	NC	20	AWQC	N	E
	72-20-8	Endrin	0.016 U	0.023 U	µg/L	MC-SW-02	29	0	0%	0.016	0.023	0.023	NV	0.23	NC	0.03, 0.002	AWQC, 6 NYCCR 703.5	Y	G
	7421-93-4	Endrin aldehyde	0.08 U	0.11 U	µg/L	Multiple Locations	29	0	0%	0.08	0.11	0.11	NV	0.1	NC	1	AWQC	Y	C
	53494-70-5	Endrin ketone	0.016 U	0.023 U	µg/L	MC-SW-02	29	0	0%	0.016	0.023	0.023	NV	5	NC			N	E
	58-89-9	gamma-Benzenehexachloride	0.008 U	0.011 U	µg/L	Multiple Locations	29	0	0%	0.008	0.011	0.011	NV	0.042	C	4.2, 0.008	AWQC, 6 NYCCR 703.5	Y	G
	76-44-8	Heptachlor	0.0023 J	0.011 U	µg/L	Multiple Locations	29	2	7%	0.008	0.011	0.011	NV	0.0014	C	0.0000059, 0.0002	AWQC, 6 NYCCR 703.5	Y	A, G
	1024-57-3	Heptachlor epoxide	0.008 U	0.011 U	µg/L	Multiple Locations	29	0	0%	0.008	0.011	0.011	NV	0.0014	C	0.000032, 0.003	AWQC, 6 NYCCR 703.5	Y	C, G
	72-43-5	Methoxychlor	0.08 U	0.11 U	µg/L	Multiple Locations	29	0	0%	0.08	0.11	0.11	NV	3.7	NC	0.02	AWQC	Y	G
	8001-35-2	Toxaphene	0.8 U	1.1 U	µg/L	Multiple Locations	29	0	0%	0.8	1.1	1.1	NV	0.071	C	0.0007, 0.000006	AWQC, 6 NYCCR 703.5	Y	C, G
	5103-74-2	trans-Chlordane	0.008 U	0.023 U	µg/L	MC-SW-02	29	0	0%	0.008	0.023	0.023	NV	1	NC			N	E
	Phenols																		
	58-90-2	2,3,4,6-Tetrachlorophenol	1 UJ	12 U	µg/L	Multiple Locations	29	0	0%	1	12	12	NV	24	NC			N	E
	95-95-4	2,4,5-Trichlorophenol	1 UJ	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	120	NC	300	AWQC	N	E
	88-06-2	2,4,6-Trichlorophenol	1 UJ	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	1.2	NC	1.5	AWQC	Y	C, G
	120-83-2	2,4-Dichlorophenol	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	4.6	NC	10	AWQC	N	E
	95-57-8	2-Chlorophenol	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	9.1	NC	30	AWQC	N	E
	87-86-5	Pentachlorophenol	5 UJ	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	0.041	C	0.03	AWQC	Y	C, G
	Semi-Volatiles																		
	120-82-1	1,2,4-Trichlorobenzene	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	0.4	NC	0.071	AWQC	Y	C, G
	95-50-1	1,2-Dichlorobenzene	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	30	NC	1000	AWQC	N	E
	541-73-1	1,3-Dichlorobenzene	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	0.7	C	7	AWQC	Y	C
	106-46-7	1,4-Dichlorobenzene	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	0.48	C	300	AWQC	Y	C
	105-67-9	2,4-Dimethylphenol	1 U	12 U	µg/L	Multiple Locations	29	0	0%	1	12	12	NV	36	NC	100, 1000	AWQC, 6 NYCCR 703.5	N	E
	51-28-5	2,4-Dinitrophenol	30 U	37 U	µg/L	MC-SW-02	29	0	0%	30	37	37	NV	3.9	NC	10, 400	AWQC, 6 NYCCR 703.5	Y	C, G
	121-14-2	2,4-Dinitrotoluene	5 U	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	0.24	C	0.049	AWQC	Y	C, G
	606-20-2	2,6-Dinitrotoluene	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	0.049	C			Y	C
	91-58-7	2-Chloronaphthalene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	75	NC	800	AWQC	N	E
	95-48-7	2-Methylphenol	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	93	NC			N	E
	88-75-5	2-Nitrophenol	1 U	12 U	µg/L	Multiple Locations	29	0	0%	1	12	12	NV	NV	NV			Y	D
	91-94-1	3,3'-Dichlorobenzidine	5 U	12 U	µg/L	Multiple Locations	29	0	0%	5	12	12	NV	0.13	C	0.049	AWQC	Y	C, G
	534-52-1	4,6-Dinitro-2-methylphenol	15 U	26 U	µg/L	MC-SW-02	29	0	0%	15	26	26	NV	0.15	NC	2	AWQC	Y	C, G
	101-55-3	4-Bromophenyl-phenylether	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	NV	NV			Y	D
	59-50-7	4-Chloro-3-methylphenol	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	140	NC	500	AWQC	N	E
	106-47-8	4-Chloroaniline	4 U	12 U	µg/L	Multiple Locations	29	0	0%	4	12	12	NV	0.37	C			Y	C
	7005-72-3	4-Chlorophenyl-phenyl ether	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	NV	NV			Y	D
	106-44-5	4-Methylphenol	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	190	NC			N	E
	100-02-7	4-Nitrophenol	30 UJ	37 U	µg/L	MC-SW-02	29	0	0%	30	37	37	NV	NV	NV			Y	D
	98-86-2	Acetophenone	1 UJ	12 U	µg/L	Multiple Locations	29	0	0%	1	12	12	NV	190	NC			N	E
	100-52-7	Benzaldehyde	5 U	12 U	µg/L	Multiple Locations	29	0	0%	5	12	12	NV	19	C			N	E
	85-68-7	Benzyl n-butyl phthalate	5 UJ	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	16	C	0.1	AWQC	Y	G
	111-91-1	bis(2-Chloroethoxy)methane	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	5.9	NC			N	E
	111-44-4	Bis(2-chloroethyl)ether	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	0.014	C	0.03	AWQC	Y	C, G
	117-81-7	bis(2-Ethylhexyl)phthalate	5 U	13 U	µg/L	Multiple Locations	29	0	0%	5	13	13	NV	5.6	C	0.32	AWQC	Y	C, G
	105-60-2	Caprolactam	11 U	15 U	µg/L	Multiple Locations	29	0	0%	11	15	15	NV	990	NC			N	E
	84-66-2	Diethyl phthalate	5 U	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	1500	NC	600	AWQC	N	E
	131-11-3	Dimethyl phthalate	5 U	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	200	NC	2000	AWQC	N	E
	84-74-2	Di-n-butyl phthalate	5 U	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	90	NC	20	AWQC	N	E
	117-84-0	Di-n-octylphthalate	5 U	13 U	µg/L	Multiple Locations	29	0	0%	5	13	13	NV	20	NC			N	E
	118-74-1	Hexachlorobenzene	0.5 U	0.6 U	µg/L	Multiple Locations	29	0	0%	0.5	0.6	0.6	NV	0.0098	C	0.000079, 0.00003	AWQC, 6 NYCCR 703.5	Y	C, G

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TABLE B1.7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SURFACE WATER
Human Health Screening for the Current/Future Resident/Recreator Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident and Recreator
Medium: Surface Water
Exposure Medium: Surface Water, All McCaffrey Street Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	87-68-3	Hexachlorobutadiene	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	0.14	C	0.01, 0.01	AWQC, 6 NYCCR 703.5	Y	C, G
	77-47-4	Hexachlorocyclopentadiene	11 U	15 U	µg/L	Multiple Locations	29	0	0%	11	15	15	NV	0.041	NC	4	AWQC	Y	C, G
	67-72-1	Hexachloroethane	5 U	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	0.33	C	0.1, 0.6	AWQC, 6 NYCCR 703.5	Y	C, G
	78-59-1	Isophorone	1 UJ	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	78	C	34	AWQC	N	E
	98-95-3	Nitrobenzene	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	0.14	C	10	AWQC	Y	C
	621-64-7	N-Nitrosodi-n-propylamine	1 U	4 U	µg/L	MC-SW-02	29	0	0%	1	4	4	NV	0.011	C	0.005	AWQC	Y	C, G
	86-30-6	N-Nitrosodiphenylamine	1 UJ	4 U	µg/L	MC-SW-02	29	0	0%	1	4	4	NV	12	C	3.3	AWQC	Y	G
	108-95-2	Phenol	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	580	NC	4000	AWQC	N	E
	Volatiles																		
	71-55-6	1,1,1-Trichloroethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	800	NC	10000	AWQC	N	E
	79-34-5	1,1,2,2-Tetrachloroethane	1 UJ	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.076	C	0.2	AWQC	Y	C, G
	79-00-5	1,1,2-Trichloroethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.041	NC	0.55	AWQC	Y	C, G
	75-34-3	1,1-Dichloroethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	2.8	C			N	E
	75-35-4	1,1-Dichloroethene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	28	NC	300	AWQC	N	E
	87-61-6	1,2,3-Trichlorobenzene	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	0.7	NC			Y	C
	95-94-3	1,2,4,5-Tetrachlorobenzene	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	0.17	NC	0.03	AWQC	Y	C, G
	96-12-8	1,2-Dibromo-3-chloropropane	5 UJ	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	0.00033	C			Y	C
	106-93-4	1,2-Dibromoethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.0075	C			Y	C
	107-06-2	1,2-Dichloroethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.17	C	9.9	AWQC	Y	C
	78-87-5	1,2-Dichloropropane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.82	NC	0.9	AWQC	Y	C, G
	123-91-1	1,4-Dioxane	5 U	6 U	µg/L	Multiple Locations	29	0	0%	5	6	6	NV	0.46	C			Y	C
	78-93-3	2-Butanone	10 U	10 U	µg/L	Multiple Locations	29	0	0%	10	10	10	NV	560	NC			N	E
	591-78-6	2-Hexanone	10 UJ	10 U	µg/L	Multiple Locations	29	0	0%	10	10	10	NV	3.8	NC			Y	C
	108-10-1	4-Methyl-2-pentanone	10 U	10 U	µg/L	Multiple Locations	29	0	0%	10	10	10	NV	630	NC			N	E
	67-64-1	Acetone	0.8 J	20 U	µg/L	Multiple Locations	29	2	7%	20	20	20	NV	1400	NC			N	E
	71-43-2	Benzene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.46	C	0.58, 10	AWQC, 6 NYCCR 703.5	Y	C, G
	39638-32-9	Bis(2-chloroisopropyl) ether	1 U	2 U	µg/L	Multiple Locations	29	0	0%	1	2	2	NV	NV	NV			Y	D
	74-97-5	Bromochloromethane	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	8.3	NC			N	E
	75-27-4	Bromodichloromethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.13	C	0.95	AWQC	Y	C, G
	75-25-2	Bromoform	4 U	4 U	µg/L	Multiple Locations	29	0	0%	4	4	4	NV	3.3	C	7	AWQC	Y	C
	74-83-9	Bromomethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.75	NC	100	AWQC	Y	C
	75-15-0	Carbon disulfide	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	81	NC			N	E
	56-23-5	Carbon Tetrachloride	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.46	C	0.4	AWQC	Y	C, G
	108-90-7	Chlorobenzene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	7.8	NC	100, 400	AWQC, 6 NYCCR 703.5	N	E
	75-00-3	Chloroethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	2100	NC			N	E
	67-66-3	Chloroform	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.22	C	60	AWQC	Y	C
	74-87-3	Chloromethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	19	NC			N	E
	156-59-2	cis-1,2-Dichloroethene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	3.6	NC			N	E
	10061-01-5	cis-1,3-Dichloropropene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.47	C			Y	C
	110-82-7	Cyclohexane	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	1300	NC			N	E
	124-48-1	Dibromochloromethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.87	C	0.8	AWQC	Y	C, G
	75-71-8	Dichlorodifluoromethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	20	NC			N	E
	100-41-4	Ethylbenzene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	1.5	C	68	AWQC	N	E
	98-82-8	Isopropylbenzene	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	45	NC			N	E
	179601-23-1	m,p-Xylene	1 U	5 U	µg/L	Multiple Locations	29	0	0%	1	5	5	NV	19	NC			N	E
	79-20-9	Methyl acetate	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	2000	NC			N	E
	1634-04-4	Methyl tert-butyl ether	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	14	C			N	E
	108-87-2	Methylcyclohexane	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	1300	NC			N	E
	75-09-2	Methylene Chloride	1 U	4 U	µg/L	Multiple Locations	29	0	0%	1	4	4	NV	11	NC	20, 200	AWQC, 6 NYCCR 703.5	N	E

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TABLE B1.7
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SURFACE WATER
Human Health Screening for the Current/Future Resident/Recreator Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Future
Receptor: Resident and Recreator
Medium: Surface Water
Exposure Medium: Surface Water, All McCaffrey Street Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3) (4) (5) (6)	Background Value (7)	Screening Value (8)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (9)
							No. Samples	No. Detects		Min SQL	Max SQL								
	95-47-6	o-Xylene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	19	NC			N	E
	100-42-5	Styrene	5 U	5 U	µg/L	Multiple Locations	29	0	0%	5	5	5	NV	120	NC			N	E
	127-18-4	Tetrachloroethene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	4.1	NC	10	AWQC	N	E
	108-88-3	Toluene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	110	NC	57, 6000	AWQC, 6 NYCCR 703.5	N	E
	156-60-5	trans-1,2-Dichloroethene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	6.8	NC	100	AWQC	N	E
	10061-02-6	trans-1,3-Dichloropropene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.47	C			Y	C
	79-01-6	Trichloroethene	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.28	NC	0.6, 40	AWQC, 6 NYCCR 703.5	Y	C, G
	75-69-4	Trichlorofluoromethane	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	520	NC			N	E
	76-13-1	Trichlorotrifluoroethane	10 U	10 U	µg/L	Multiple Locations	29	0	0%	10	10	10	NV	1000	NC			N	E
	75-01-4	Vinyl Chloride	1 U	1 U	µg/L	Multiple Locations	29	0	0%	1	1	1	NV	0.019	C	0.022	AWQC	Y	C, G

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
AWQC = U.S. Environmental Protection Agency National Ambient Water Quality Criteria
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
SL = screening level
SQL = sample quantitation limit
µg/L = microgram per liter
6 NYCCR 703.5 = New York Codes, Rules and Regulations Title 6, Part 703.5, Surface Water and Groundwater Quality Standards for Taste-, Color-, Odor-Producing, Toxic and Other Deleterious Substances. Last revised effective March 12, 1998.

Footnotes

(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).
(2) Shaded box indicates frequency of detection is less than 5%.
(3) Total PFAS are the sum of PFAS. For samples with all non-detects, the maximum sample quantification limit is used for screening. The minimum and maximum of those results are provided here
(4) Total B(a)P Equivalents are a sum of cPAH analytes after multiplication by a Toxic Equivalency Factor (TEF): Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Indeno[1,2,3-cd]pyrene. Individual cPAH concentrations used for screening are multipled by their TEF. For samples with all non-detects, the maximum sample quantification limit is used for screening.
(5) Total PCBs are sum of aroclors. For samples with all non-detects, the maximum sample quantification limit is used for screening. The minimum and maximum of those results are provided here.
(6) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.
(7) There are no applicable background values for chemicals in surface water.
(8) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.9.
(9) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%, and max detect > RSBC; B) retain: max detect > SL; note that FOD < 5% or max detect ≤ RSBC; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL; F) delete: essential nutrient; G) retain: max detect > ARAR/TBC; H) retain due to retained B(a)P equivalents.

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TABLE B1.8
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN AMBIENT AIR
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current and Future
Receptor: Resident
Medium: Ambient Air
Exposure Medium: Ambient Air, All McCaffrey St. Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3)	Background Value (4)	Screening Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								
Ambient air - Project Area, On- and Off-Site	Semi-Volatiles																		
	95-50-1	1,2-Dichlorobenzene	0.84 U	600 U	µg/m³	Multiple Locations	25	0	0%	0.84	600	600	NV	21	NC			Y	C
	541-73-1	1,3-Dichlorobenzene	0.84 U	600 U	µg/m³	Multiple Locations	25	14	56%	0.84	600	600	NV	NV	NV			Y	D
	106-46-7	1,4-Dichlorobenzene	0.17 U	600 U	µg/m³	Multiple Locations	25	0	0%	0.17	600	600	NV	0.26	C			Y	C
	Volatiles																		
	71-55-6	1,1,1-Trichloroethane	0.15 U	550 U	µg/m³	Multiple Locations	25	0	0%	0.15	550	550	NV	520	NC			Y	C
	79-34-5	1,1,2,2-Tetrachloroethane	0.19 U	690 U	µg/m³	Multiple Locations	25	0	0%	0.19	690	690	NV	0.048	C			Y	C
	79-00-5	1,1,2-Trichloroethane	0.15 U	550 U	µg/m³	Multiple Locations	25	0	0%	0.15	550	550	NV	0.021	NC			Y	C
	75-34-3	1,1-Dichloroethane	0.11 U	400 U	µg/m³	Multiple Locations	25	0	0%	0.11	400	400	NV	1.8	C			Y	C
	75-35-4	1,1-Dichloroethene	0.055 U	400 U	µg/m³	Multiple Locations	25	0	0%	0.055	400	400	NV	21	NC			Y	C
	96-12-8	1,2-Dibromo-3-chloropropane	9.7 U	970 U	µg/m³	Multiple Locations	12	0	0%	9.7	970	970	NV	0.00017	C			Y	C
	106-93-4	1,2-Dibromoethane	0.21 U	770 U	µg/m³	Multiple Locations	25	0	0%	0.21	770	770	NV	0.0047	C			Y	C
	107-06-2	1,2-Dichloroethane	0.11 U	400 U	µg/m³	Multiple Locations	25	4	16%	0.11	400	400	NV	0.11	C			Y	A
	78-87-5	1,2-Dichloropropane	0.64 U	460 U	µg/m³	Multiple Locations	25	0	0%	0.64	460	460	NV	0.42	NC			Y	C
	78-93-3	2-Butanone	2 U	2500	µg/m³	MC-VI-3	25	11	44%	2	590	2500	NV	520	NC			Y	A
	591-78-6	2-Hexanone	2.8 UJ	820 U	µg/m³	Multiple Locations	25	0	0%	2.8	820	820	NV	3.1	NC			Y	C
	108-10-1	4-Methyl-2-pentanone	0.57 U	820 U	µg/m³	Multiple Locations	25	4	16%	0.57	820	820	NV	310	NC			Y	A
	67-64-1	Acetone	6.4 J	110000	µg/m³	MC-VI-3	25	25	100%	NV	NV	110000	NV	3200	NC			Y	A
	71-43-2	Benzene	0.53	320 U	µg/m³	Multiple Locations	25	21	84%	3.2	320	320	NV	0.36	C			Y	A
	75-27-4	Bromodichloromethane	0.93 U	670 U	µg/m³	Multiple Locations	25	0	0%	0.93	670	670	NV	0.076	C			Y	C
	75-25-2	Bromoform	1.4 U	1000 U	µg/m³	Multiple Locations	25	0	0%	1.4	1000	1000	NV	2.6	C			Y	C
	74-83-9	Bromomethane	2.7 U	390 U	µg/m³	Multiple Locations	25	0	0%	2.7	390	390	NV	0.52	NC			Y	C
	75-15-0	Carbon disulfide	2.2 U	570	µg/m³	MC-VI-9	25	2	8%	2.2	310	570	NV	73	NC			Y	A
	56-23-5	Carbon Tetrachloride	0.47 J	630 U	µg/m³	Multiple Locations	25	13	52%	6.3	630	630	NV	0.47	C			Y	A
	108-90-7	Chlorobenzene	0.64 U	460 U	µg/m³	Multiple Locations	25	0	0%	0.64	460	460	NV	5.2	NC			Y	C
	75-00-3	Chloroethane	0.18 U	260 U	µg/m³	Multiple Locations	25	0	0%	0.18	260	260	NV	1000	NC			N	E
	67-66-3	Chloroform	0.13 J	490 U	µg/m³	Multiple Locations	25	3	12%	0.14	490	490	NV	0.12	C			Y	A
	74-87-3	Chloromethane	1.4 U	210 U	µg/m³	Multiple Locations	25	0	0%	1.4	210	210	NV	9.4	NC			Y	C
	156-59-2	cis-1,2-Dichloroethene	0.055 U	400 U	µg/m³	Multiple Locations	25	1	4%	0.055	400	400	NV	NV	NV			Y	D
	10061-01-5	cis-1,3-Dichloropropene	0.63 U	450 U	µg/m³	Multiple Locations	25	0	0%	0.63	450	450	NV	0.7	C			Y	C
	110-82-7	Cyclohexane	0.48 U	340 U	µg/m³	Multiple Locations	25	1	4%	0.48	340	340	NV	630	NC			N	E
	124-48-1	Dibromochloromethane	1.2 U	850 U	µg/m³	Multiple Locations	25	0	0%	1.2	850	850	NV	NV	NV			Y	D
	75-71-8	Dichlorodifluoromethane	2.1	490 U	µg/m³	Multiple Locations	25	22	88%	490	490	490	NV	10	NC			Y	A
	100-41-4	Ethylbenzene	0.12 U	430 U	µg/m³	Multiple Locations	25	10	40%	0.12	430	430	NV	1.1	C			Y	A
	98-82-8	Isopropylbenzene	0.68 U	490 U	µg/m³	Multiple Locations	25	0	0%	0.68	490	490	NV	42	NC			Y	C
	179601-23-1	m,p-Xylene	0.24 U	430 U	µg/m³	Multiple Locations	25	17	68%	0.24	430	430	NV	10	NC			Y	A
	1634-04-4	Methyl tert-butyl ether	0.5 U	360 U	µg/m³	Multiple Locations	25	0	0%	0.5	360	360	NV	11	C			Y	C
	75-09-2	Methylene Chloride	0.78 J	2600	µg/m³	MC-VI-8	25	14	56%	0.96	3.5	2600	NV	63	NC			Y	A
	95-47-6	o-Xylene	0.12 U	430 U	µg/m³	Multiple Locations	25	11	44%	0.12	430	430	NV	10	NC			Y	A
	100-42-5	Styrene	0.59 U	430 U	µg/m³	Multiple Locations	25	2	8%	0.59	430	430	NV	100	NC			Y	A
	127-18-4	Tetrachloroethene	0.19 U	680 U	µg/m³	Multiple Locations	25	2	8%	0.19	680	680	NV	4.2	NC			Y	A
	108-88-3	Toluene	0.58	690	µg/m³	MC-VI-9	25	25	100%	NV	NV	690	NV	520	NC			Y	A
	156-60-5	trans-1,2-Dichloroethene	0.55 U	400 U	µg/m³	Multiple Locations	25	0	0%	0.55	400	400	NV	4.2	NC			Y	C

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TABLE B1.8
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN AMBIENT AIR
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current and Future
Receptor: Resident
Medium: Ambient Air
Exposure Medium: Ambient Air, All McCaffrey St. Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3)	Background Value (4)	Screening Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								
	10061-02-6	trans-1,3-Dichloropropene	0.63 U	450 U	µg/m^3	Multiple Locations	25	0	0%	0.63	450	450	NV	0.7	C			Y	C
	79-01-6	Trichloroethene	0.16	540 U	µg/m^3	Multiple Locations	25	14	56%	5.4	540	540	NV	0.21	NC			Y	A
	75-69-4	Trichlorofluoromethane	1.3	560 U	µg/m^3	Multiple Locations	25	22	88%	560	560	560	NV	NV	NV			Y	D
	76-13-1	Trichlorotrifluoroethane	1.1 U	1500 U	µg/m^3	Multiple Locations	25	0	0%	1.1	1500	1500	NV	520	NC			Y	C
	75-01-4	Vinyl Chloride	0.036 U	260 U	µg/m^3	Multiple Locations	25	0	0%	0.036	260	260	NV	0.17	C			Y	C

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
SL = screening level
SQL = sample quantitation limit
µg/m^3 = microgram per meter cubed

Footnotes
(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).
(2) Shaded box indicates frequency of detection is less than 5%.
(3) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.
(4) There are no applicable background values for chemicals in ambient air.
(5) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.9.
(6) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%; B) retain: max detect > SL; note that FOD < 5%; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL.

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TABLE B1.9
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL VAPOR
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Soil Vapor
Exposure Medium: Ambient Air, All McCaffrety St. Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3)	Background Value (4)	Screening Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								
Air - Soil vapor, Project Area, On- and Off-Site	Semi-Volatiles																		
	95-50-1	1,2-Dichlorobenzene	3.1 J	600 U	µg/m^3	Multiple Locations	19	1	6%	4.2	600	600	NV	700	NC			N	E
	541-73-1	1,3-Dichlorobenzene	1.6 J	600 U	µg/m^3	Multiple Locations	19	4	22%	4.2	600	600	NV	NV	NV			Y	D
	106-46-7	1,4-Dichlorobenzene	4.2 U	600 U	µg/m^3	Multiple Locations	19	1	6%	4.2	600	600	NV	9	C			Y	A
	Volatiles																		
	71-55-6	1,1,1-Trichloroethane	2.9 J	550 U	µg/m^3	Multiple Locations	19	2	11%	3.8	550	550	NV	20000	NC			N	E
	79-34-5	1,1,2,2-Tetrachloroethane	4.8 U	690 U	µg/m^3	Multiple Locations	19	0	0%	4.8	690	690	NV	2	C			Y	C
	79-00-5	1,1,2-Trichloroethane	3.8 U	550 U	µg/m^3	Multiple Locations	19	0	0%	3.8	550	550	NV	0.7	NC			Y	C
	75-34-3	1,1-Dichloroethane	2.8 U	400 U	µg/m^3	Multiple Locations	19	0	0%	2.8	400	400	NV	60	C			Y	C
	75-35-4	1,1-Dichloroethene	2.8 U	400 U	µg/m^3	Multiple Locations	19	1	6%	2.8	400	400	NV	700	NC			N	E
	96-12-8	1,2-Dibromo-3-chloropropane	9.7 U	970 U	µg/m^3	Multiple Locations	7	0	0%	9.7	970	970	NV	0.006	C			Y	C
	106-93-4	1,2-Dibromoethane	5.4 U	770 U	µg/m^3	Multiple Locations	19	1	6%	5.4	770	770	NV	0.2	C			Y	A
	107-06-2	1,2-Dichloroethane	2.8 U	400 U	µg/m^3	Multiple Locations	19	0	0%	2.8	400	400	NV	4	C			Y	C
	78-87-5	1,2-Dichloropropane	3.2 U	460 U	µg/m^3	Multiple Locations	19	0	0%	3.2	460	460	NV	10	NC			Y	C
	78-93-3	2-Butanone	4.8 J	1600	µg/m^3	MC-VI-3	19	8	43%	8.3	590	1600	NV	20000	NC			N	E
	591-78-6	2-Hexanone	2.5 J	820 U	µg/m^3	Multiple Locations	19	1	6%	8.2	820	820	NV	100	NC			Y	A
	108-10-1	4-Methyl-2-pentanone	2.9 U	820 U	µg/m^3	Multiple Locations	19	1	6%	2.9	820	820	NV	10000	NC			N	E
	67-64-1	Acetone	26	39000	µg/m^3	MC-VI-3	19	17	90%	84	210	39000	NV	100000	NC			N	E
	71-43-2	Benzene	1 J	320 U	µg/m^3	Multiple Locations	19	5	27%	2.2	320	320	NV	10	C			Y	A
	75-27-4	Bromodichloromethane	4.7 U	670 U	µg/m^3	Multiple Locations	19	0	0%	4.7	670	670	NV	3	C			Y	C
	75-25-2	Bromoform	7.3 U	1000 U	µg/m^3	Multiple Locations	19	0	0%	7.3	1000	1000	NV	90	C			Y	C
	74-83-9	Bromomethane	3.9 U	390 U	µg/m^3	Multiple Locations	19	0	0%	3.9	390	390	NV	20	NC			Y	C
	75-15-0	Carbon disulfide	2.5 J	310 U	µg/m^3	MC-VI-8	19	2	11%	3.1	310	310	NV	2000	NC			N	E
	56-23-5	Carbon Tetrachloride	4.4 U	630 U	µg/m^3	Multiple Locations	19	0	0%	4.4	630	630	NV	20	C			Y	C
	108-90-7	Chlorobenzene	2.6 J	460 U	µg/m^3	Multiple Locations	19	1	6%	3.2	460	460	NV	200	NC			Y	A
	75-00-3	Chloroethane	2.6 U	260 U	µg/m^3	Multiple Locations	19	0	0%	2.6	260	260	NV	30000	NC			N	E
	67-66-3	Chloroform	3.4 U	490 U	µg/m^3	Multiple Locations	19	2	11%	3.4	490	490	NV	4	C			Y	A
	74-87-3	Chloromethane	2.1 U	210 U	µg/m^3	Multiple Locations	19	0	0%	2.1	210	210	NV	300	NC			N	E
	10061-01-5	cis-1,3-Dichloropropene	2.1 J	450 U	µg/m^3	Multiple Locations	19	1	6%	3.2	450	450	NV	NV	NV			Y	D
	110-82-7	Cyclohexane	1.3 J	340 U	µg/m^3	Multiple Locations	19	2	11%	2.4	340	340	NV	20000	NC			N	E
	75-71-8	Dichlorodifluoromethane	2.9 J	490 U	µg/m^3	Multiple Locations	19	5	27%	3.5	490	490	NV	300	NC			Y	A
	100-41-4	Ethylbenzene	1.1 J	430 U	µg/m^3	Multiple Locations	19	3	16%	3.1	430	430	NV	40	C			Y	A
	98-82-8	Isopropylbenzene	3.5 U	490 U	µg/m^3	Multiple Locations	19	0	0%	3.5	490	490	NV	1000	NC			N	E
	179601-23-1	m,p-Xylene	0.97 J	430 U	µg/m^3	Multiple Locations	19	7	37%	3.1	430	430	NV	NV	NV			Y	D
	1634-04-4	Methyl tert-butyl ether	3.6 U	360 U	µg/m^3	Multiple Locations	19	0	0%	3.6	360	360	NV	400	C			N	E
	75-09-2	Methylene Chloride	1.8 J	1100	µg/m^3	MC-VI-8	19	6	32%	3.5	310	1100	NV	2000	NC			N	E
	95-47-6	o-Xylene	1 J	430 U	µg/m^3	Multiple Locations	19	4	22%	3.1	430	430	NV	300	NC			Y	A
	100-42-5	Styrene	2.4 J	430 U	µg/m^3	Multiple Locations	19	1	6%	3	430	430	NV	3000	NC			N	E
	127-18-4	Tetrachloroethene	1.5 J	680 U	µg/m^3	Multiple Locations	19	5	27%	4.8	680	680	NV	100	NC			Y	A
	108-88-3	Toluene	2.6 U	290 J	µg/m^3	MC-VI-8	19	14	74%	2.6	33	290	NV	20000	NC			N	E
	10061-02-6	trans-1,3-Dichloropropene	3.2 U	450 U	µg/m^3	Multiple Locations	19	1	6%	3.2	450	450	NV	NV	NV			Y	D
	79-01-6	Trichloroethene	3.8 U	13000	µg/m^3	MC-VI-1	19	14	74%	3.8	540	13000	NV	7	NC			Y	A
	75-69-4	Trichlorofluoromethane	1.4 J	560 U	µg/m^3	Multiple Locations	19	5	27%	4	560	560	NV	NV	NV			Y	D
	76-13-1	Trichlorotrifluoroethane	5.4 U	1500 U	µg/m^3	Multiple Locations	19	0	0%	5.4	1500	1500	NV	20000	NC			N	E
	75-01-4	Vinyl Chloride	1.8 U	260 U	µg/m^3	Multiple Locations	19	0	0%	1.8	260	260	NV	6	C			Y	C

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TABLE B1.9
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL VAPOR
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Soil Vapor
Exposure Medium: Ambient Air, All McCaffrety St. Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3)	Background Value (4)	Screening Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
SL = screening level
SQL = sample quantitation limit
µg/m^3 = microgram per meter cubed

Footnotes
(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).
(2) Shaded box indicates frequency of detection is less than 5%.
(3) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.
(4) There are no applicable background values for chemicals in ambient air.
(5) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.9.
(6) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD≥ 5%; B) retain: max detect > SL; note that FOD < 5%; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL.

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TABLE B1.10
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR VAPOR INTRUSION FROM GROUNDWATER
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Groundwater
Exposure Medium: Ambient Air, All McCaffrey St. Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3)	Background Value (4)	Screening Toxicity Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								
Groundwater - McCaffrey St Project Area On- and Off-Site	Metals																		
	7439-97-6	Mercury	0.05 J	0.38	µg/L	MC-PZ-04S	761	33	5%	0.2	0.2	0.38	1	0.0889	NC			Y	B
	PAH																		
	92-52-4	1,1'-Biphenyl	1 UJ	27 U	µg/L	MC-MW-08S	648	0	0%	1	27	27	1	3.31	NC			Y	C
	56-55-3	Benzo[a]anthracene	0.1 J	2.5 U	µg/L	MC-MW-36I	648	1	1%	0.5	2.5	2.5	1	34.4	C			N	E
	91-20-3	Naphthalene	0.16 J	2.5 U	µg/L	MC-MW-36I	648	9	2%	0.5	2.5	2.5	1	4.59	C			N	E
	PCBs																		
	12674-11-2	Aroclor 1016	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	1	17.2	C			Y	C
	11104-28-2	Aroclor 1221	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	1	17.2	C			Y	C
	11141-16-5	Aroclor 1232	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	1	17.2	C			Y	C
	53469-21-9	Aroclor 1242	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	1	17.2	C			Y	C
	12672-29-6	Aroclor 1248	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	1	0.425	C			Y	C
	11097-69-1	Aroclor 1254	0.4 UJ	40 U	µg/L	MC-MW-24	651	0	0%	0.4	40	40	1	0.425	C			Y	C
	11096-82-5	Aroclor 1260	0.4 UJ	170	µg/L	MC-MW-24	651	1	1%	0.4	2.6	170	1	0.425	C			Y	B
	Pesticides																		
	309-00-2	Aldrin	0.0079 U	0.084 U	µg/L	MC-MW-15	634	0	0%	0.0079	0.084	0.084	1	0.319	C			N	E
	76-44-8	Heptachlor	0.002 J	0.084 U	µg/L	Multiple Locations	1286	16	2%	0.0079	0.084	0.084	2	0.18	C			N	E
	1024-57-3	Heptachlor epoxide	0.0028 J	0.084 U	µg/L	MC-MW-15	643	3	1%	0.0079	0.084	0.084	1	1.26	C			N	E
	76-44-8	Heptachlor	0.002 J	0.084 U	µg/L	Multiple Locations	1286	16	2%	0.0079	0.084	0.084	2	0.18	C			N	E
	Semi-Volatiles																		
	120-82-1	1,2,4-Trichlorobenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	3.59	NC			Y	C
	95-50-1	1,2-Dichlorobenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	266	NC			N	E
	106-46-7	1,4-Dichlorobenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	2.59	C			Y	C
	111-44-4	Bis(2-chloroethyl)ether	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	2	12.2	C			N	E
	118-74-1	Hexachlorobenzene	0.5 UJ	2.5 U	µg/L	MC-MW-36I	648	0	0%	0.5	2.5	2.5	1	0.0878	C			Y	C
	87-68-3	Hexachlorobutadiene	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	2	0.303	C			Y	C
	77-47-4	Hexachlorocyclopentadiene	10 U	75 U	µg/L	MC-MW-36I	642	0	0%	10	75	75	1	0.0189	NC			Y	C
	67-72-1	Hexachloroethane	5 UJ	25 U	µg/L	MC-MW-36I	648	0	0%	5	25	25	1	1.6	C			Y	C
	98-95-3	Nitrobenzene	1 UJ	5 U	µg/L	Multiple Locations	648	0	0%	1	5	5	2	71.5	C			N	E
	Volatiles																		
	71-55-6	1,1,1-Trichloroethane	0.3 J	1 U	µg/L	Multiple Locations	791	5	1%	1	1	1	778	742	NC			N	E
	79-34-5	1,1,2,2-Tetrachloroethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	788	3.23	C			N	E
	79-00-5	1,1,2-Trichloroethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	788	0.619	NC			Y	C
	75-34-3	1,1-Dichloroethane	0.3 J	24	µg/L	MC-MW-22	791	6	1%	1	1	24	1	7.64	C			Y	B
	75-35-4	1,1-Dichloroethene	0.5 J	33	µg/L	MC-GP-13	791	5	1%	1	1	33	1	19.5	NC			Y	B
	96-12-8	1,2-Dibromo-3-chloropropane	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	0.0281	C			Y	C
	106-93-4	1,2-Dibromoethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	788	0.176	C			Y	C
	107-06-2	1,2-Dichloroethane	0.4 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	783	2.24	C			N	E
	78-87-5	1,2-Dichloropropane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	788	3.62	NC			N	E
	123-91-1	1,4-Dioxane	1.8 J	25 U	µg/L	MC-MW-36I	647	4	1%	5	25	25	1	2860	C			N	E
	78-93-3	2-Butanone	0.3 J	13	µg/L	MC-GP-05	791	18	3%	10	10	13	1	224000	NC			N	E
	591-78-6	2-Hexanone	10 UJ	10 U	µg/L	Multiple Locations	791	0	0%	10	10	10	783	821	NC			N	E
	108-10-1	4-Methyl-2-pentanone	0.5 J	10 U	µg/L	Multiple Locations	791	2	1%	10	10	10	786	55500	NC			N	E
	67-64-1	Acetone	0.7 J	34	µg/L	MC-GP-05	791	36	5%	20	20	34	1	2250000	NC			N	E
	71-43-2	Benzene	0.2 J	1 J	µg/L	MC-MW-31	791	4	1%	1	1	1	1	1.59	C			N	E
	74-97-5	Bromochloromethane	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	69.9	NC			N	E
	75-27-4	Bromodichloromethane	0.6 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	787	0.876	C			Y	C
	75-25-2	Bromoform	4 UJ	4 U	µg/L	Multiple Locations	791	0	0%	4	4	4	788	117	C			N	E
	74-83-9	Bromomethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	771	1.74	NC			N	E
	75-15-0	Carbon disulfide	0.2 J	11	µg/L	Multiple Locations	791	16	3%	5	5	11	2	124	NC			N	E
	56-23-5	Carbon Tetrachloride	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	787	0.415	C			Y	C
	108-90-7	Chlorobenzene	0.3 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	787	41	NC			N	E
	75-00-3	Chloroethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	777	2300	NC			N	E
	67-66-3	Chloroform	0.2 J	24	µg/L	MC-MW-19	791	18	3%	1	1	24	1	0.814	C			Y	B
	74-87-3	Chloromethane	0.2 J	2	µg/L	MC-MW-24S	791	16	3%	1	1	2	1	26	NC			N	E

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TABLE B1.10
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN FOR VAPOR INTRUSION FROM GROUNDWATER
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Groundwater
Exposure Medium: Ambient Air, All McCaffrey St. Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3)	Background Value (4)	Screening Toxicity Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								
Ground-water	Metals																		
	110-82-7	Cyclohexane	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	102	NC			N	E
	75-71-8	Dichlorodifluoromethane	1 UJ	1 U	µg/L	Multiple Locations	791	0	0%	1	1	1	777	0.744	NC			Y	C
	100-41-4	Ethylbenzene	1 UJ	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	787	3.49	C			N	E
	98-82-8	Isopropylbenzene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	88.7	NC			N	E
	1634-04-4	Methyl tert-butyl ether	0.2 J	5	µg/L	Multiple Locations	791	28	4%	1	1	5	3	450	C			N	E
	75-09-2	Methylene Chloride	0.6 J	4 U	µg/L	Multiple Locations	791	4	1%	1	4	4	102	471	NC			N	E
	95-47-6	o-Xylene	1 UJ	1 J	µg/L	MC-GP-05	791	1	1%	1	1	1	1	49.2	NC			N	E
	100-42-5	Styrene	5 UJ	5 U	µg/L	Multiple Locations	791	0	0%	5	5	5	788	928	NC			N	E
	127-18-4	Tetrachloroethene	0.2 J	1 U	µg/L	Multiple Locations	791	1	1%	1	1	1	787	5.76	NC			N	E
	108-88-3	Toluene	0.6 J	22	µg/L	MC-MW-19	791	3	1%	1	2	22	1	1920	NC			N	E
	79-01-6	Trichloroethene	0.2 J	270	µg/L	MC-GP-13	791	141	18%	1	1	270	1	0.518	NC			Y	A
	76-13-1	Trichlorotrifluoroethane	10 UJ	10 U	µg/L	Multiple Locations	791	0	0%	10	10	10	788	24.2	NC			N	E
	75-01-4	Vinyl Chloride	0.4 J	1 U	µg/L	Multiple Locations	791	16	3%	1	1	1	762	0.147	C			Y	C

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
SL = screening level
SQL = sample quantitation limit
µg/L = microgram per liter

Footnotes
(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).
(2) Shaded box indicates frequency of detection is less than 5%.
(3) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.
(4) There are no applicable background values for volatile or semi-volatile chemicals in groundwater.
(5) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.9.
(6) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%; B) retain: max detect > SL; note that FOD < 5%; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL.

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TABLE B1.11
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN AMBIENT AIR VAPOR INTRUSION
Human Health Screening for the Current/Future Resident Receptor
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Scenario Timeframe: Current/Future
Receptor: Resident
Medium: Ambient Air
Exposure Medium: Ambient Air, All McCaffrey St. Project Area

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency		Frequency of Detect (2)	Range of Detection Limits		Concentration Used for Screening (3)	Background Value (4)	Screening Value (5)	Noncancer/ Cancer (N/C)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (6)
							No. Samples	No. Detects		Min SQL	Max SQL								
Ambient air - Project Area, On- and Off-Site	Semi-Volatiles																		
	95-50-1	1,2-Dichlorobenzene	0.84 U	600 U	µg/m³	Multiple Locations	25	0	0%	0.84	600	600	NV	20	NC			Y	C
	106-46-7	1,4-Dichlorobenzene	0.17 U	600 U	µg/m³	Multiple Locations	25	0	0%	0.17	600	600	NV	0.3	C			Y	C
	Volatiles																		
	71-55-6	1,1,1-Trichloroethane	0.15 U	550 U	µg/m³	Multiple Locations	25	0	0%	0.15	550	550	NV	500	NC			Y	C
	79-34-5	1,1,2,2-Tetrachloroethane	0.19 U	690 U	µg/m³	Multiple Locations	25	0	0%	0.19	690	690	NV	0.048	C			Y	C
	79-00-5	1,1,2-Trichloroethane	0.15 U	550 U	µg/m³	Multiple Locations	25	0	0%	0.15	550	550	NV	0.02	NC			Y	C
	75-34-3	1,1-Dichloroethane	0.11 U	400 U	µg/m³	Multiple Locations	25	0	0%	0.11	400	400	NV	2	C			Y	C
	75-35-4	1,1-Dichloroethene	0.055 U	400 U	µg/m³	Multiple Locations	25	0	0%	0.055	400	400	NV	20	NC			Y	C
	96-12-8	1,2-Dibromo-3-chloropropane	9.7 U	970 U	µg/m³	Multiple Locations	12	0	0%	9.7	970	970	NV	0.0002	C			Y	C
	106-93-4	1,2-Dibromoethane	0.21 U	770 U	µg/m³	Multiple Locations	25	0	0%	0.21	770	770	NV	0.005	C			Y	C
	107-06-2	1,2-Dichloroethane	0.11 U	400 U	µg/m³	Multiple Locations	25	4	16%	0.11	400	400	NV	0.1	C			Y	A
	78-87-5	1,2-Dichloropropane	0.64 U	460 U	µg/m³	Multiple Locations	25	0	0%	0.64	460	460	NV	0.4	NC			Y	C
	78-93-3	2-Butanone	2 U	2500	µg/m³	MC-VI-3	25	11	44%	2	590	2500	NV	500	NC			Y	A
	591-78-6	2-Hexanone	2.8 UJ	820 U	µg/m³	Multiple Locations	25	0	0%	2.8	820	820	NV	3	NC			Y	C
	108-10-1	4-Methyl-2-pentanone	0.57 U	820 U	µg/m³	Multiple Locations	25	4	16%	0.57	820	820	NV	300	NC			Y	A
	67-64-1	Acetone	6.4 J	110000	µg/m³	MC-VI-3	25	25	100%	NV	NV	110000	NV	3000	NC			Y	A
	71-43-2	Benzene	0.53	320 U	µg/m³	Multiple Locations	25	21	84%	3.2	320	320	NV	0.4	C			Y	A
	75-27-4	Bromodichloromethane	0.93 U	670 U	µg/m³	Multiple Locations	25	0	0%	0.93	670	670	NV	0.08	C			Y	C
	75-25-2	Bromoform	1.4 U	1000 U	µg/m³	Multiple Locations	25	0	0%	1.4	1000	1000	NV	3	C			Y	C
	74-83-9	Bromomethane	2.7 U	390 U	µg/m³	Multiple Locations	25	0	0%	2.7	390	390	NV	0.5	NC			Y	C
	75-15-0	Carbon disulfide	2.2 U	570	µg/m³	MC-VI-9	25	2	8%	2.2	310	570	NV	70	NC			Y	A
	56-23-5	Carbon Tetrachloride	0.47 J	630 U	µg/m³	Multiple Locations	25	13	52%	6.3	630	630	NV	0.5	C			Y	A
	108-90-7	Chlorobenzene	0.64 U	460 U	µg/m³	Multiple Locations	25	0	0%	0.64	460	460	NV	5	NC			Y	C
	75-00-3	Chloroethane	0.18 U	260 U	µg/m³	Multiple Locations	25	0	0%	0.18	260	260	NV	1000	NC			N	E
	67-66-3	Chloroform	0.13 J	490 U	µg/m³	Multiple Locations	25	3	12%	0.14	490	490	NV	0.1	C			Y	A
	74-87-3	Chloromethane	1.4 U	210 U	µg/m³	Multiple Locations	25	0	0%	1.4	210	210	NV	9	NC			Y	C
	110-82-7	Cyclohexane	0.48 U	340 U	µg/m³	Multiple Locations	25	1	4%	0.48	340	340	NV	600	NC			N	E
	75-71-8	Dichlorodifluoromethane	2.1	490 U	µg/m³	Multiple Locations	25	22	88%	490	490	490	NV	10	NC			Y	A
	100-41-4	Ethylbenzene	0.12 U	430 U	µg/m³	Multiple Locations	25	10	40%	0.12	430	430	NV	1	C			Y	A
	98-82-8	Isopropylbenzene	0.68 U	490 U	µg/m³	Multiple Locations	25	0	0%	0.68	490	490	NV	40	NC			Y	C
	1634-04-4	Methyl tert-butyl ether	0.5 U	360 U	µg/m³	Multiple Locations	25	0	0%	0.5	360	360	NV	10	C			Y	C
	75-09-2	Methylene Chloride	0.78 J	2600	µg/m³	MC-VI-8	25	14	56%	0.96	3.5	2600	NV	60	NC			Y	A
	95-47-6	o-Xylene	0.12 U	430 U	µg/m³	Multiple Locations	25	11	44%	0.12	430	430	NV	10	NC			Y	A
	100-42-5	Styrene	0.59 U	430 U	µg/m³	Multiple Locations	25	2	8%	0.59	430	430	NV	100	NC			Y	A
	127-18-4	Tetrachloroethene	0.19 U	680 U	µg/m³	Multiple Locations	25	2	8%	0.19	680	680	NV	4	NC			Y	A
	108-88-3	Toluene	0.58	690	µg/m³	MC-VI-9	25	25	100%	NV	NV	690	NV	500	NC			Y	A
	79-01-6	Trichloroethene	0.16	540 U	µg/m³	Multiple Locations	25	14	56%	5.4	540	540	NV	0.2	NC			Y	A
	76-13-1	Trichlorotrifluoroethane	1.1 U	1500 U	µg/m³	Multiple Locations	25	0	0%	1.1	1500	1500	NV	500	NC			Y	C
	75-01-4	Vinyl Chloride	0.036 U	260 U	µg/m³	Multiple Locations	25	0	0%	0.036	260	260	NV	0.2	C			Y	C

ARAR/TBC = applicable or relevant and appropriate requirement, to be considered
C = carcinogen
COPC = contaminant of potential concern
FOD = frequency of detect
NC = noncarcinogen
ND = non detect
NV = no screening value available
SL = screening level
SQL = sample quantitation limit
µg/m³ = microgram per meter cubed

Footnotes
(1) Data qualifiers include: J (estimated value between method detection limit and method reporting limit), U (not detected above the method detection limit), and UJ (estimated and value is equal to the method detection limit).
(2) Shaded box indicates frequency of detection is less than 5%.
(3) The maximum concentration (detect or non-detect) is used to compare with screening levels to establish a preliminary COPC list for the baseline risk assessment.
(4) There are no applicable background values for chemicals in ambient air.
(5) The sources for all risk-based screening levels are further described in Tables B2.1 - B2.9.
(6) Final determination for inclusion on the COPC list is one of the following: A) retain: max detect > SL, and FOD ≥ 5%; B) retain: max detect > SL; note that FOD < 5%; C) retain: max ND > SL; note that FOD < 5%; D) retain: no screening level or not analyzed; E) delete: max (detect or ND) ≤ SL.

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TABLE B2.1
Current and Future Residential Soil Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
PFAS	375-22-4	Heptafluorobutanoic acid	--	--	--	--
	2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid	--	--	--	--
	2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid	--	--	--	--
	375-73-5	Perfluorobutanesulfonic acid	NC	1.9E+0	mg/kg	USEPA, 2021
	335-77-3	Perfluorodecane sulfonic acid	--	--	--	--
	335-76-2	Perfluorodecanoic acid	--	--	--	--
	307-55-1	Perfluorododecanoic acid	--	--	--	--
	375-92-8	Perfluoroheptane sulfonate	--	--	--	--
	375-85-9	Perfluoroheptanoic acid	--	--	--	--
	355-46-4	Perfluorohexane sulfonic acid	--	--	--	--
	307-24-4	Perfluorohexanoic acid	--	--	--	--
	375-95-1	Perfluorononanoic acid	--	--	--	--
	754-91-6	Perfluorooctane sulfonamide	--	--	--	--
	1763-23-1	Perfluorooctanesulfonic acid	NC	6.6E-4	mg/kg	NYSDEC, 2021
	335-67-1	Perfluorooctanoic acid	NC	8.8E-4	mg/kg	NYSDEC, 2021
	2706-90-3	Perfluoropentanoic acid	--	--	--	--
	376-06-7	Perfluorotetradecanoic acid	--	--	--	--
	72629-94-8	Perfluorotridecanoic acid	--	--	--	--
	2058-94-8	Perfluoroundecanoic acid	--	--	--	--
	39108-34-4	Sodium 1H,1H,2H,2H-perfluordecane sulfonate (8:2)	--	--	--	--
	27619-97-2	Sodium 1h,1h,2h,2h-perfluorooctane sulfonate (6:2)	--	--	--	--
Metals	7429-90-5	Aluminum	NC	7.7E+3	mg/kg	USEPA, 2020a
	7440-36-0	Antimony	NC	3.1E+0	mg/kg	USEPA, 2020a
	7440-38-2	Arsenic	C	6.8E-1	mg/kg	USEPA, 2020a
	7440-39-3	Barium	NC	1.5E+3	mg/kg	USEPA, 2020a
	7440-41-7	Beryllium	NC	1.6E+1	mg/kg	USEPA, 2020a
	7440-43-9	Cadmium	NC	7.1E+0	mg/kg	USEPA, 2020a
	7440-70-2	Calcium	--	--	--	USEPA, 1989, 2018
	7440-47-3	Chromium	NC	3.0E-1	mg/kg	Chromium VI (USEPA, 2020a)
	7440-48-4	Cobalt	NC	2.3E+0	mg/kg	USEPA, 2020a
	7440-50-8	Copper	NC	3.1E+2	mg/kg	USEPA, 2020a
	7439-89-6	Iron	NC	5.5E+3	mg/kg	USEPA, 2020a
	7439-92-1	Lead	NC	2.0E+2	mg/kg	NYSDEC/USEPA comment on draft Work Plan
	7439-95-4	Magnesium	--	--	--	USEPA, 1989, 2018
	7439-96-5	Manganese	NC	1.8E+2	mg/kg	USEPA, 2020a
	7439-97-6	Mercury	NC	1.1E+0	mg/kg	USEPA, 2020a
	7440-02-0	Nickel	NC	1.5E+2	mg/kg	USEPA, 2020a
	7440-09-7	Potassium	--	--	--	USEPA, 1989, 2018
	7782-49-2	Selenium	NC	3.9E+1	mg/kg	USEPA, 2020a
	7440-22-4	Silver	NC	3.9E+1	mg/kg	USEPA, 2020a
	7440-23-5	Sodium	--	--	--	USEPA, 1989, 2018
	7440-28-0	Thallium	NC	7.8E-2	mg/kg	USEPA, 2020a
	7440-62-2	Vanadium	NC	3.9E+1	mg/kg	USEPA, 2020a
	7440-66-6	Zinc	NC	2.3E+3	mg/kg	USEPA, 2020a
PAHs	92-52-4	1,1'-Biphenyl	NC	4.7E+0	mg/kg	USEPA, 2020a
	91-57-6	2-Methylnaphthalene	NC	2.4E+1	mg/kg	USEPA, 2020a
	88-74-4	2-Nitroaniline	NC	6.3E+1	mg/kg	USEPA, 2020a
	99-09-2	3-Nitroaniline	NC	5.0E-2	mg/kg	NYSDEC, 2010
	100-01-6	4-Nitroaniline	NC	2.5E+1	mg/kg	USEPA, 2020a
	83-32-9	Acenaphthene	NC	3.6E+2	mg/kg	USEPA, 2020a
	208-96-8	Acenaphthylene	NC	1.0E+1	mg/kg	NYSDEC, 2010
	120-12-7	Anthracene	NC	1.8E+3	mg/kg	USEPA, 2020a
	56-55-3	Benzo[a]anthracene	C	1.1E-1	mg/kg	BaP (USEPA, 2020a)
	50-32-8	Benzo[a]pyrene	C	1.1E-1	mg/kg	USEPA, 2020a
	205-99-2	Benzo[b]fluoranthene	C	1.1E-1	mg/kg	BaP (USEPA, 2020a)
	191-24-2	Benzo[g,h,i]perylene	NC	1.0E+1	mg/kg	NYSDEC, 2010
	207-08-9	Benzo[k]fluoranthene	C	1.1E-1	mg/kg	BaP (USEPA, 2020a)
	218-01-9	Chrysene	C	1.1E-1	mg/kg	BaP (USEPA, 2020a)
	53-70-3	Dibenzo[a,h]anthracene	C	1.1E-1	mg/kg	BaP (USEPA, 2020a)
	132-64-9	Dibenzofuran	NC	7.8E+0	mg/kg	USEPA, 2020a
	206-44-0	Fluoranthene	NC	2.4E+2	mg/kg	USEPA, 2020a
	86-73-7	Fluorene	NC	2.4E+2	mg/kg	USEPA, 2020a
	193-39-5	Indeno[1,2,3-cd]pyrene	C	1.1E-1	mg/kg	BaP (USEPA, 2020a)
	91-20-3	Naphthalene	C	1.1E-1	mg/kg	BaP (USEPA, 2020a)
	85-01-8	Phenanthrene	NC	1.0E+1	mg/kg	NYSDEC, 2010
	129-00-0	Pyrene	NC	1.8E+2	mg/kg	USEPA, 2020a
	--	BaP toxic equivalents[e]	C	1.1E-1	mg/kg	USEPA, 2020a
PCBs	12674-11-2	Aroclor 1016	NC	4.1E-1	mg/kg	USEPA, 2020a
	11104-28-2	Aroclor 1221	NC	4.1E-1	mg/kg	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11141-16-5	Aroclor 1232	NC	4.1E-1	mg/kg	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	53469-21-9	Aroclor 1242	NC	4.1E-1	mg/kg	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	12672-29-6	Aroclor 1248	NC	1.2E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11097-69-1	Aroclor 1254	NC	1.2E-1	mg/kg	USEPA, 2020a
	11096-82-5	Aroclor 1260	NC	1.2E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	37324-23-5	Aroclor 1262	NC	1.2E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11100-14-4	Aroclor 1268	NC	1.2E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	1336-36-3	Total Aroclors	C	2.3E-1	mg/kg	USEPA, 2020a

GSI ENVIRONMENTAL

TABLE B2.1
Current and Future Residential Soil Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Pesticides	72-54-8	4,4'-DDD	NC	1.9E-1	mg/kg	USEPA, 2020a
	72-55-9	4,4'-DDE	C	2.0E+0	mg/kg	USEPA, 2020a
	50-29-3	4,4'-DDT	C	1.9E+0	mg/kg	USEPA, 2020a
	309-00-2	Aldrin	C	3.9E-2	mg/kg	USEPA, 2020a
	319-84-6	alpha-Benzenehexachloride	C	8.6E-2	mg/kg	USEPA, 2020a
	1912-24-9	Atrazine	C	2.4E+0	mg/kg	USEPA, 2020a
	319-85-7	beta-Benzenehexachloride	C	3.0E-1	mg/kg	USEPA, 2020a
	86-74-8	Carbazole	--	--	--	--
	5103-71-9	cis-Chlordane	NC	3.6E+0	mg/kg	USEPA, 2021
	319-86-8	delta-Benzenehexachloride	NC	1.8E+1	mg/kg	NYSDEC & NYSDOH, 2006
	60-57-1	Dieldrin	C	3.4E-2	mg/kg	USEPA, 2020a
	959-98-8	Endosulfan I	NC	4.7E+1	mg/kg	Endosulfan (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	33213-65-9	Endosulfan II	NC	4.7E+1	mg/kg	Endosulfan (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	1031-07-8	Endosulfan sulfate	NC	3.8E+1	mg/kg	USEPA, 2020a
	72-20-8	Endrin	NC	1.9E+0	mg/kg	USEPA, 2020a
	7421-93-4	Endrin aldehyde	--	--	--	--
	53494-70-5	Endrin ketone	--	--	--	--
	58-89-9	gamma-Benzenehexachloride	C	5.7E-1	mg/kg	USEPA, 2020a
	76-44-8	Heptachlor	C	1.3E-1	mg/kg	USEPA, 2020a
	1024-57-3	Heptachlor epoxide	C	7.0E-2	mg/kg	USEPA, 2020a
	72-43-5	Methoxychlor	NC	3.2E+1	mg/kg	USEPA, 2020a
	8001-35-2	Toxaphene	C	4.9E-1	mg/kg	USEPA, 2020a
	5103-74-2	trans-Chlordane	NC	3.6E+0	mg/kg	USEPA, 2021
Phenols	58-90-2	2,3,4,6-Tetrachlorophenol	NC	1.9E+2	mg/kg	USEPA, 2020a
	95-95-4	2,4,5-Trichlorophenol	NC	6.3E+2	mg/kg	USEPA, 2020a
	88-06-2	2,4,6-Trichlorophenol	NC	6.3E+0	mg/kg	USEPA, 2020a
	120-83-2	2,4-Dichlorophenol	NC	1.9E+1	mg/kg	USEPA, 2020a
	95-57-8	2-Chlorophenol	NC	3.9E+1	mg/kg	USEPA, 2020a
	87-86-5	Pentachlorophenol	C	1.0E+0	mg/kg	USEPA, 2020a
Semi-volatiles	120-82-1	1,2,4-Trichlorobenzene	NC	5.8E+0	mg/kg	USEPA, 2020a
	95-50-1	1,2-Dichlorobenzene	NC	1.8E+2	mg/kg	USEPA, 2020a
	541-73-1	1,3-Dichlorobenzene	NC	1.7E+0	mg/kg	NYSDEC & NYSDOH, 2006
	106-46-7	1,4-Dichlorobenzene	C	2.6E+0	mg/kg	USEPA, 2020a
	105-67-9	2,4-Dimethylphenol	NC	1.3E+2	mg/kg	USEPA, 2020a
	51-28-5	2,4-Dinitrophenol	NC	1.3E+1	mg/kg	USEPA, 2020a
	121-14-2	2,4-Dinitrotoluene	C	1.7E+0	mg/kg	USEPA, 2020a
	606-20-2	2,6-Dinitrotoluene	C	3.6E-1	mg/kg	USEPA, 2020a
	91-58-7	2-Chloronaphthalene	NC	4.8E+2	mg/kg	USEPA, 2020a
	95-48-7	2-Methylphenol	NC	3.2E+2	mg/kg	USEPA, 2020a
	88-75-5	2-Nitrophenol	--	--	--	--
	91-94-1	3,3'-Dichlorobenzidine	C	1.2E+0	mg/kg	USEPA, 2020a
	534-52-1	4,6-Dinitro-2-methylphenol	NC	5.1E-1	mg/kg	USEPA, 2020a
	101-55-3	4-Bromophenyl-phenylether	--	--	--	--
	59-50-7	4-Chloro-3-methylphenol	NC	6.3E+2	mg/kg	USEPA, 2020a
	106-47-8	4-Chloroaniline	C	2.7E+0	mg/kg	USEPA, 2020a
	7005-72-3	4-Chlorophenyl-phenyl ether	--	--	--	--
	106-44-5	4-Methylphenol	NC	6.3E+2	mg/kg	USEPA, 2020a
	100-02-7	4-Nitrophenol	--	--	--	--
	98-86-2	Acetophenone	NC	7.8E+2	mg/kg	USEPA, 2020a
	100-52-7	Benzaldehyde	C	1.7E+2	mg/kg	USEPA, 2020a
	85-68-7	Benzyl n-butyl phthalate	C	2.9E+2	mg/kg	USEPA, 2020a
	111-91-1	bis(2-Chloroethoxy)methane	NC	1.9E+1	mg/kg	USEPA, 2020a
	111-44-4	Bis(2-chloroethyl)ether	C	2.3E-1	mg/kg	USEPA, 2020a
	117-81-7	bis(2-Ethylhexyl)phthalate	C	3.9E+1	mg/kg	USEPA, 2020a
	105-60-2	Caprolactam	NC	3.1E+3	mg/kg	USEPA, 2020a
	84-66-2	Diethyl phthalate	NC	5.1E+3	mg/kg	USEPA, 2020a
	131-11-3	Dimethyl phthalate	--	--	--	--
	84-74-2	Di-n-butyl phthalate	NC	6.3E+2	mg/kg	USEPA, 2020a
	117-84-0	Di-n-octylphthalate	NC	6.3E+1	mg/kg	USEPA, 2020a
	118-74-1	Hexachlorobenzene	C	2.1E-1	mg/kg	USEPA, 2020a
	87-68-3	Hexachlorobutadiene	C	1.2E+0	mg/kg	USEPA, 2020a
	77-47-4	Hexachlorocyclopentadiene	NC	1.8E-1	mg/kg	USEPA, 2020a
	67-72-1	Hexachloroethane	C	1.8E+0	mg/kg	USEPA, 2020a
	78-59-1	Isophorone	C	5.7E+2	mg/kg	USEPA, 2020a
	98-95-3	Nitrobenzene	C	5.1E+0	mg/kg	USEPA, 2020a
	621-64-7	N-Nitrosodi-n-propylamine	C	7.8E-2	mg/kg	USEPA, 2020a
	86-30-6	N-Nitrosodiphenylamine	C	1.1E+2	mg/kg	USEPA, 2020a
	108-95-2	Phenol	NC	1.9E+3	mg/kg	USEPA, 2020a

GSI ENVIRONMENTAL

TABLE B2.1
Current and Future Residential Soil Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	8.1E+2	mg/kg	USEPA, 2020a
	79-34-5	1,1,2,2-Tetrachloroethane	C	6.0E-1	mg/kg	USEPA, 2020a
	79-00-5	1,1,2-Trichloroethane	NC	1.5E-1	mg/kg	USEPA, 2020a
	75-34-3	1,1-Dichloroethane	C	3.6E+0	mg/kg	USEPA, 2020a
	75-35-4	1,1-Dichloroethene	NC	2.3E+1	mg/kg	USEPA, 2020a
	87-61-6	1,2,3-Trichlorobenzene	NC	6.3E+0	mg/kg	USEPA, 2020a
	95-94-3	1,2,4,5-Tetrachlorobenzene	NC	2.3E+0	mg/kg	USEPA, 2020a
	96-12-8	1,2-Dibromo-3-chloropropane	C	5.3E-3	mg/kg	USEPA, 2020a
	106-93-4	1,2-Dibromoethane	C	3.6E-2	mg/kg	USEPA, 2020a
	107-06-2	1,2-Dichloroethane	C	4.6E-1	mg/kg	USEPA, 2020a
	78-87-5	1,2-Dichloropropane	NC	1.6E+0	mg/kg	USEPA, 2020a
	123-91-1	1,4-Dioxane	C	5.3E+0	mg/kg	USEPA, 2020a
	78-93-3	2-Butanone	NC	2.7E+3	mg/kg	USEPA, 2020a
	591-78-6	2-Hexanone	NC	2.0E+1	mg/kg	USEPA, 2020a
	108-10-1	4-Methyl-2-pentanone	NC	3.3E+3	mg/kg	USEPA, 2020a
	67-64-1	Acetone	NC	6.1E+3	mg/kg	USEPA, 2020a
	71-43-2	Benzene	C	1.2E+0	mg/kg	USEPA, 2020a
	39638-32-9	Bis(2-chloroisopropyl) ether	--	--	--	--
	74-97-5	Bromochloromethane	NC	1.5E+1	mg/kg	USEPA, 2020a
	75-27-4	Bromodichloromethane	C	2.9E-1	mg/kg	USEPA, 2020a
	75-25-2	Bromoform	C	1.9E+1	mg/kg	USEPA, 2020a
	74-83-9	Bromomethane	NC	6.8E-1	mg/kg	USEPA, 2020a
	75-15-0	Carbon disulfide	NC	7.7E+1	mg/kg	USEPA, 2020a
	56-23-5	Carbon Tetrachloride	C	6.5E-1	mg/kg	USEPA, 2020a
	108-90-7	Chlorobenzene	NC	2.8E+1	mg/kg	USEPA, 2020a
	75-00-3	Chloroethane	NC	1.4E+3	mg/kg	USEPA, 2020a
	67-66-3	Chloroform	C	3.2E-1	mg/kg	USEPA, 2020a
	74-87-3	Chloromethane	NC	1.1E+1	mg/kg	USEPA, 2020a
	156-59-2	cis-1,2-Dichloroethene	NC	1.6E+1	mg/kg	USEPA, 2020a
	10061-01-5	cis-1,3-Dichloropropene	C	1.8E+0	mg/kg	1,3-Dichloropropene (USEPA, 2020a)
	110-82-7	Cyclohexane	NC	6.5E+2	mg/kg	USEPA, 2020a
	124-48-1	Dibromochloromethane	C	8.3E+0	mg/kg	USEPA, 2020a
	75-71-8	Dichlorodifluoromethane	NC	8.7E+0	mg/kg	USEPA, 2020a
	100-41-4	Ethylbenzene	C	5.8E+0	mg/kg	USEPA, 2020a
	98-82-8	Isopropylbenzene	NC	1.9E+2	mg/kg	USEPA, 2020a
	179601-23-1	m,p-Xylene	NC	5.5E+1	mg/kg	Xylene (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	79-20-9	Methyl acetate	NC	7.8E+3	mg/kg	USEPA, 2020a
	1634-04-4	Methyl tert-butyl ether	C	4.7E+1	mg/kg	USEPA, 2020a
	108-87-2	Methylcyclohexane	NC	6.5E+2	mg/kg	Cyclohexane (USEPA, 2020a; per CDTSC, 2019)
	75-09-2	Methylene Chloride	NC	3.5E+1	mg/kg	USEPA, 2020a
	95-47-6	o-Xylene	NC	6.5E+1	mg/kg	USEPA, 2020a
	100-42-5	Styrene	NC	6.0E+2	mg/kg	USEPA, 2020a
	127-18-4	Tetrachloroethene	NC	8.1E+0	mg/kg	USEPA, 2020a
	108-88-3	Toluene	NC	4.9E+2	mg/kg	USEPA, 2020a
	156-60-5	trans-1,2-Dichloroethene	NC	7.0E+0	mg/kg	USEPA, 2020a
	10061-02-6	trans-1,3-Dichloropropene	C	1.8E+0	mg/kg	1,3-Dichloropropene (USEPA, 2020a)
	79-01-6	Trichloroethene	NC	4.1E-1	mg/kg	USEPA, 2020a
	75-69-4	Trichlorofluoromethane	NC	2.3E+3	mg/kg	USEPA, 2020a
	76-13-1	Trichlorotrifluoroethane	NC	6.7E+2	mg/kg	USEPA, 2020a
	75-01-4	Vinyl Chloride	C	5.9E-2	mg/kg	USEPA, 2020a
	1330-20-7	Xylenes	NC	5.8E+1	mg/kg	USEPA, 2020a

Footnotes

[a] All RBSL are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.

[b] NYSDEC & NYSDOH derived non-cancer levels using a THQ of 1.0. GSI divided these non-cancer levels by 10 to present RBSLs with THQ of 0.1. The New York soil cleanup objectives are for residential land use (NYSDEC & NYSDOH, 2006).

[c] If a RBSL was not available for the specified chemical, a RBSL for a similar chemical was identified.

[d] Calcium, magnesium, potassium, and sodium are considered essential nutrients at low levels (USEPA, 1989, 2018).

[e] At the request of NYSDEC/USEPA, carcinogenic PAHs will be screened using a toxic equivalency approach. Toxic equivalents are based on the relative potency of each compound relative to BaP. See Appendix B Table B3.

Notes

CDTSC = California Department of Toxic Substances Control
"--" = no value is available
NYSDEC = New York State Department of Environmental Conservation
NYSDOH = New York State Department of Health
RBSL = risk-based screening level
THQ = target hazard quotient
USEPA = United States Environmental Protection Agency

References

CDTSC. (2019). *Human Health Risk Assessment (HHRA) Note Number 10, Toxicity Criteria*. California Department of Toxic Substances Control.

NYSDEC and NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document.* New York State Department of Environmental Conservation and New York State Department of Health.

NYSDEC. (2010). *Final Commissioner Policy, CP-51, Soil Cleanup Guidance*. New York State Department of Environmental Conservation, Alexander B. Grannis, Commissioner.

NYSDEC. (2021). *Sampling, Analysis, and Assessment of Per- and PolyFluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs*. New York State Department of Environmental Conservation. January.

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A)*. U.S. Environmental Protection Agency.

USEPA. (2018). *Region 4 Human Health Risk Assessment Supplemental Guidance. March 2018 Update.* Scientific Support Section, Supefund Division, U.S. Environmental Protection Agency Region 4.

USEPA. (2020a). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency.

USEPA. (2021). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency. Updated in May 2021

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TABLE B2.2
Current and Future Commerical/Industrial Worker Soil Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
PFAS	375-73-5	Perfluorobutanesulfonic acid	NC	2.5E+1	mg/kg	USEPA, 2021
	335-76-2	Perfluorodecanoic acid	--	--	--	--
	307-55-1	Perfluorododecanoic acid	--	--	--	--
	375-85-9	Perfluoroheptanoic acid	--	--	--	--
	355-46-4	Perfluorohexane sulfonic acid	--	--	--	--
	307-24-4	Perfluorohexanoic acid	--	--	--	--
	375-95-1	Perfluorononanoic acid	--	--	--	--
	1763-23-1	Perfluorooctanesulfonic acid	NC	4.4E-1	mg/kg	NYSDEC, 2021
	335-67-1	Perfluorooctanoic acid	NC	5.0E-1	mg/kg	NYSDEC, 2021
	376-06-7	Perfluorotetradecanoic acid	--	--	--	--
	72629-94-8	Perfluorotridecanoic acid	--	--	--	--
	2058-94-8	Perfluoroundecanoic acid	--	--	--	--
Metals	7429-90-5	Aluminum	NC	1.1E+5	mg/kg	USEPA, 2020a
	7440-36-0	Antimony	NC	4.7E+1	mg/kg	USEPA, 2020a
	7440-38-2	Arsenic	C	3.0E+0	mg/kg	USEPA, 2020a
	7440-39-3	Barium	NC	2.2E+4	mg/kg	USEPA, 2020a
	7440-41-7	Beryllium	NC	2.3E+2	mg/kg	USEPA, 2020a
	7440-43-9	Cadmium	NC	9.8E+1	mg/kg	USEPA, 2020a
	7440-70-2	Calcium	--	--	--	USEPA, 1989, 2018
	7440-47-3	Chromium	NC	6.3E+0	mg/kg	Chromium VI (USEPA, 2020a)
	7440-48-4	Cobalt	NC	3.5E+1	mg/kg	USEPA, 2020a
	7440-50-8	Copper	NC	4.7E+3	mg/kg	USEPA, 2020a
	7439-89-6	Iron	NC	8.2E+4	mg/kg	USEPA, 2020a
	7439-92-1	Lead	NC	4.0E+2	mg/kg	NYSDEC/USEPA comment on draft Work Plan
	7439-95-4	Magnesium	--	--	--	USEPA, 1989, 2018
	7439-96-5	Manganese	NC	2.6E+3	mg/kg	USEPA, 2020a
	7439-97-6	Mercury	NC	4.6E+0	mg/kg	USEPA, 2020a
	7440-02-0	Nickel	NC	2.2E+3	mg/kg	USEPA, 2020a
	7440-09-7	Potassium	--	--	--	USEPA, 1989, 2018
	7782-49-2	Selenium	NC	5.8E+2	mg/kg	USEPA, 2020a
	7440-22-4	Silver	NC	5.8E+2	mg/kg	USEPA, 2020a
	7440-23-5	Sodium	--	--	--	USEPA, 1989, 2018
	7440-28-0	Thallium	NC	1.2E+0	mg/kg	USEPA, 2020a
	7440-62-2	Vanadium	NC	5.8E+2	mg/kg	USEPA, 2020a
	7440-66-6	Zinc	NC	3.5E+4	mg/kg	USEPA, 2020a
PAHs	92-52-4	1,1'-Biphenyl	NC	2.0E+1	mg/kg	USEPA, 2020a
	91-57-6	2-Methylnaphthalene	NC	3.0E+2	mg/kg	USEPA, 2020a
	88-74-4	2-Nitroaniline	NC	8.0E+2	mg/kg	USEPA, 2020a
	99-09-2	3-Nitroaniline	--	--	--	--
	100-01-6	4-Nitroaniline	C	1.1E+2	mg/kg	USEPA, 2020a
	83-32-9	Acenaphthene	NC	4.5E+3	mg/kg	USEPA, 2020a
	208-96-8	Acenaphthylene	NC	1.0E+1	mg/kg	NYSDEC, 2010
	120-12-7	Anthracene	NC	2.3E+4	mg/kg	USEPA, 2020a
	56-55-3	Benzo[a]anthracene	C	2.1E+0	mg/kg	BaP (USEPA, 2020a)
	50-32-8	Benzo[a]pyrene	C	2.1E+0	mg/kg	USEPA, 2020a
	205-99-2	Benzo[b]fluoranthene	C	2.1E+0	mg/kg	BaP (USEPA, 2020a)
	191-24-2	Benzo[g,h,i]perylene	NC	1.0E+1	mg/kg	NYSDEC, 2010
	207-08-9	Benzo[k]fluoranthene	C	2.1E+0	mg/kg	BaP (USEPA, 2020a)
	218-01-9	Chrysene	C	2.1E+0	mg/kg	BaP (USEPA, 2020a)
	53-70-3	Dibenzo[a,h]anthracene	C	2.1E+0	mg/kg	BaP (USEPA, 2020a)
	132-64-9	Dibenzofuran	NC	1.2E+2	mg/kg	USEPA, 2020a
	206-44-0	Fluoranthene	NC	3.0E+3	mg/kg	USEPA, 2020a
	86-73-7	Fluorene	NC	3.0E+3	mg/kg	USEPA, 2020a
	193-39-5	Indeno[1,2,3-cd]pyrene	C	2.1E+0	mg/kg	BaP (USEPA, 2020a)
	91-20-3	Naphthalene	C	2.1E+0	mg/kg	BaP (USEPA, 2020a)
	85-01-8	Phenanthrene	NC	1.0E+1	mg/kg	NYSDEC, 2010
	129-00-0	Pyrene	NC	2.3E+3	mg/kg	USEPA, 2020a
	--	BaP toxic equivalents[e]	C	2.1E+0	mg/kg	USEPA, 2020
PCBs	12674-11-2	Aroclor 1016	NC	5.1E+0	mg/kg	USEPA, 2020a
	11104-28-2	Aroclor 1221	NC	5.1E+0	mg/kg	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11141-16-5	Aroclor 1232	NC	5.1E+0	mg/kg	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	53469-21-9	Aroclor 1242	NC	5.1E+0	mg/kg	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	12672-29-6	Aroclor 1248	C	9.7E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11097-69-1	Aroclor 1254	C	9.7E-1	mg/kg	USEPA, 2020a
	11096-82-5	Aroclor 1260	C	9.7E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	37324-23-5	Aroclor 1262	C	9.7E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11100-14-4	Aroclor 1268	C	9.7E-1	mg/kg	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	1336-36-3	Total Aroclors	C	9.4E-1	mg/kg	NYSDEC & NYSDOH, 2006

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TABLE B2.2
Current and Future Commerical/Industrial Worker Soil Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Pesticides	72-54-8	4,4'-DDD	NC	2.5E+0	mg/kg	USEPA, 2020a
	72-55-9	4,4'-DDE	C	9.3E+0	mg/kg	USEPA, 2020a
	50-29-3	4,4'-DDT	C	8.5E+0	mg/kg	USEPA, 2020a
	309-00-2	Aldrin	C	1.8E-1	mg/kg	USEPA, 2020a
	319-84-6	alpha-Benzenehexachloride	C	3.6E-1	mg/kg	USEPA, 2020a
	1912-24-9	Atrazine	C	1.0E+1	mg/kg	USEPA, 2020a
	319-85-7	beta-Benzenehexachloride	C	1.3E+0	mg/kg	USEPA, 2020a
	86-74-8	Carbazole	--	--	--	--
	5103-71-9	cis-Chlordane	NC	5.0E+1	mg/kg	USEPA, 2021
	319-86-8	delta-Benzenehexachloride	NC	7.4E+2	mg/kg	NYSDEC & NYSDOH, 2006
	60-57-1	Dieldrin	C	1.4E-1	mg/kg	USEPA, 2020a
	959-98-8	Endosulfan I	NC	7.0E+2	mg/kg	Endosulfan (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	33213-65-9	Endosulfan II	NC	7.0E+2	mg/kg	Endosulfan (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	1031-07-8	Endosulfan sulfate	NC	4.9E+2	mg/kg	USEPA, 2020a
	72-20-8	Endrin	NC	2.5E+1	mg/kg	USEPA, 2020a
	7421-93-4	Endrin aldehyde	--	--	--	--
	53494-70-5	Endrin ketone	--	--	--	--
	58-89-9	gamma-Benzenehexachloride	C	2.5E+0	mg/kg	USEPA, 2020a
	76-44-8	Heptachlor	C	6.3E-1	mg/kg	USEPA, 2020a
	1024-57-3	Heptachlor epoxide	C	3.3E-1	mg/kg	USEPA, 2020a
	72-43-5	Methoxychlor	NC	4.1E+2	mg/kg	USEPA, 2020a
	8001-35-2	Toxaphene	C	2.1E+0	mg/kg	USEPA, 2020a
	5103-74-2	trans-Chlordane	NC	5.0E+1	mg/kg	USEPA, 2021
Phenols	58-90-2	2,3,4,6-Tetrachlorophenol	NC	2.5E+3	mg/kg	USEPA, 2020a
	95-95-4	2,4,5-Trichlorophenol	NC	8.2E+3	mg/kg	USEPA, 2020a
	88-06-2	2,4,6-Trichlorophenol	NC	8.2E+1	mg/kg	USEPA, 2020a
	120-83-2	2,4-Dichlorophenol	NC	2.5E+2	mg/kg	USEPA, 2020a
	95-57-8	2-Chlorophenol	NC	5.8E+2	mg/kg	USEPA, 2020a
	87-86-5	Pentachlorophenol	C	4.0E+0	mg/kg	USEPA, 2020a
Semi-volatiles	120-82-1	1,2,4-Trichlorobenzene	NC	2.6E+1	mg/kg	USEPA, 2020a
	95-50-1	1,2-Dichlorobenzene	NC	9.3E+2	mg/kg	USEPA, 2020a
	541-73-1	1,3-Dichlorobenzene	NC	2.8E+1	mg/kg	NYSDEC & NYSDOH, 2006
	106-46-7	1,4-Dichlorobenzene	C	1.1E+1	mg/kg	USEPA, 2020a
	105-67-9	2,4-Dimethylphenol	NC	1.6E+3	mg/kg	USEPA, 2020a
	51-28-5	2,4-Dinitrophenol	NC	1.6E+2	mg/kg	USEPA, 2020a
	121-14-2	2,4-Dinitrotoluene	C	7.4E+0	mg/kg	USEPA, 2020a
	606-20-2	2,6-Dinitrotoluene	C	1.5E+0	mg/kg	USEPA, 2020a
	91-58-7	2-Chloronaphthalene	NC	6.0E+3	mg/kg	USEPA, 2020a
	95-48-7	2-Methylphenol	NC	4.1E+3	mg/kg	USEPA, 2020a
	88-75-5	2-Nitrophenol	--	--	--	--
	91-94-1	3,3'-Dichlorobenzidine	C	5.1E+0	mg/kg	USEPA, 2020a
	534-52-1	4,6-Dinitro-2-methylphenol	NC	6.6E+0	mg/kg	USEPA, 2020a
	101-55-3	4-Bromophenyl-phenylether	NC	--	--	USEPA, 2020
	59-50-7	4-Chloro-3-methylphenol	NC	8.2E+3	mg/kg	USEPA, 2020a
	106-47-8	4-Chloroaniline	C	1.1E+1	mg/kg	USEPA, 2020a
	7005-72-3	4-Chlorophenyl-phenyl ether	--	--	--	USEPA, 2020
	106-44-5	4-Methylphenol	NC	8.2E+3	mg/kg	USEPA, 2020a
	100-02-7	4-Nitrophenol	--	--	--	--
	98-86-2	Acetophenone	NC	1.2E+4	mg/kg	USEPA, 2020a
	100-52-7	Benzaldehyde	C	8.2E+2	mg/kg	USEPA, 2020a
	85-68-7	Benzyl n-butyl phthalate	C	1.2E+3	mg/kg	USEPA, 2020a
	111-91-1	bis(2-Chloroethoxy)methane	NC	2.5E+2	mg/kg	USEPA, 2020a
	111-44-4	Bis(2-chloroethyl)ether	C	1.0E+0	mg/kg	USEPA, 2020a
	117-81-7	bis(2-Ethylhexyl)phthalate	C	1.6E+2	mg/kg	USEPA, 2020a
	105-60-2	Caprolactam	NC	4.0E+4	mg/kg	USEPA, 2020a
	84-66-2	Diethyl phthalate	NC	6.6E+4	mg/kg	USEPA, 2020a
	131-11-3	Dimethyl phthalate	NC	--	--	--
	84-74-2	Di-n-butyl phthalate	NC	8.2E+3	mg/kg	USEPA, 2020a
	117-84-0	Di-n-octylphthalate	NC	8.2E+2	mg/kg	USEPA, 2020a
	118-74-1	Hexachlorobenzene	C	9.6E-1	mg/kg	USEPA, 2020a
	87-68-3	Hexachlorobutadiene	C	5.3E+0	mg/kg	USEPA, 2020a
	77-47-4	Hexachlorocyclopentadiene	NC	7.5E-1	mg/kg	USEPA, 2020a
	67-72-1	Hexachloroethane	C	8.0E+0	mg/kg	USEPA, 2020a
	78-59-1	Isophorone	C	2.4E+3	mg/kg	USEPA, 2020a
	98-95-3	Nitrobenzene	C	2.2E+1	mg/kg	USEPA, 2020a
	621-64-7	N-Nitrosodi-n-propylamine	C	3.3E-1	mg/kg	USEPA, 2020a
	86-30-6	N-Nitrosodiphenylamine	C	4.7E+2	mg/kg	USEPA, 2020a
	108-95-2	Phenol	NC	2.5E+4	mg/kg	USEPA, 2020a

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TABLE B2.2
Current and Future Commerical/Industrial Worker Soil Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	3.6E+3	mg/kg	USEPA, 2020a
	79-34-5	1,1,2,2-Tetrachloroethane	C	2.7E+0	mg/kg	USEPA, 2020a
	79-00-5	1,1,2-Trichloroethane	NC	6.3E-1	mg/kg	USEPA, 2020a
	75-34-3	1,1-Dichloroethane	C	1.6E+1	mg/kg	USEPA, 2020a
	75-35-4	1,1-Dichloroethene	NC	1.0E+2	mg/kg	USEPA, 2020a
	87-61-6	1,2,3-Trichlorobenzene	NC	9.3E+1	mg/kg	USEPA, 2020a
	95-94-3	1,2,4,5-Tetrachlorobenzene	NC	3.5E+1	mg/kg	USEPA, 2020a
	96-12-8	1,2-Dibromo-3-chloropropane	C	6.4E-2	mg/kg	USEPA, 2020a
	106-93-4	1,2-Dibromoethane	C	1.6E-1	mg/kg	USEPA, 2020a
	107-06-2	1,2-Dichloroethane	C	2.0E+0	mg/kg	USEPA, 2020a
	78-87-5	1,2-Dichloropropane	NC	6.6E+0	mg/kg	USEPA, 2020a
	123-91-1	1,4-Dioxane	C	2.4E+1	mg/kg	USEPA, 2020a
	78-93-3	2-Butanone	NC	1.9E+4	mg/kg	USEPA, 2020a
	591-78-6	2-Hexanone	NC	1.3E+2	mg/kg	USEPA, 2020a
	108-10-1	4-Methyl-2-pentanone	NC	1.4E+4	mg/kg	USEPA, 2020a
	67-64-1	Acetone	NC	6.7E+4	mg/kg	USEPA, 2020a
	71-43-2	Benzene	C	5.1E+0	mg/kg	USEPA, 2020a
	39638-32-9	Bis(2-chloroisopropyl) ether	--	--	--	USEPA, 2020
	74-97-5	Bromochloromethane	NC	6.3E+1	mg/kg	USEPA, 2020a
	75-27-4	Bromodichloromethane	C	1.3E+0	mg/kg	USEPA, 2020a
	75-25-2	Bromoform	C	8.6E+1	mg/kg	USEPA, 2020a
	74-83-9	Bromomethane	NC	3.0E+0	mg/kg	USEPA, 2020a
	75-15-0	Carbon disulfide	NC	3.5E+2	mg/kg	USEPA, 2020a
	56-23-5	Carbon Tetrachloride	C	2.9E+0	mg/kg	USEPA, 2020a
	108-90-7	Chlorobenzene	NC	1.3E+2	mg/kg	USEPA, 2020a
	75-00-3	Chloroethane	NC	5.7E+3	mg/kg	USEPA, 2020a
	67-66-3	Chloroform	C	1.4E+0	mg/kg	USEPA, 2020a
	74-87-3	Chloromethane	NC	4.6E+1	mg/kg	USEPA, 2020a
	156-59-2	cis-1,2-Dichloroethene	NC	2.3E+2	mg/kg	USEPA, 2020a
	10061-01-5	cis-1,3-Dichloropropene	C	8.2E+0	mg/kg	1,3-Dichloropropene (USEPA, 2020a)
	110-82-7	Cyclohexane	NC	2.7E+3	mg/kg	USEPA, 2020a
	124-48-1	Dibromochloromethane	C	3.9E+1	mg/kg	USEPA, 2020a
	75-71-8	Dichlorodifluoromethane	NC	3.7E+1	mg/kg	USEPA, 2020a
	100-41-4	Ethylbenzene	C	2.5E+1	mg/kg	USEPA, 2020a
	98-82-8	Isopropylbenzene	NC	9.9E+2	mg/kg	USEPA, 2020a
	179601-23-1	m,p-Xylene	NC	2.4E+2	mg/kg	Xylene (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	79-20-9	Methyl acetate	NC	1.2E+5	mg/kg	USEPA, 2020a
	1634-04-4	Methyl tert-butyl ether	C	2.1E+2	mg/kg	USEPA, 2020a
	108-87-2	Methylcyclohexane	NC	2.7E+3	mg/kg	Cyclohexane (USEPA, 2020a; per CDTSC, 2019)
	75-09-2	Methylene Chloride	NC	3.2E+2	mg/kg	USEPA, 2020a
	95-47-6	o-Xylene	NC	2.8E+2	mg/kg	USEPA, 2020a
	100-42-5	Styrene	NC	3.5E+3	mg/kg	USEPA, 2020a
	127-18-4	Tetrachloroethene	NC	3.9E+1	mg/kg	USEPA, 2020a
	108-88-3	Toluene	NC	4.7E+3	mg/kg	USEPA, 2020a
	156-60-5	trans-1,2-Dichloroethene	NC	3.0E+1	mg/kg	USEPA, 2020a
	10061-02-6	trans-1,3-Dichloropropene	C	8.2E+0	mg/kg	1,3-Dichloropropene (USEPA, 2020a)
	79-01-6	Trichloroethene	NC	1.9E+0	mg/kg	USEPA, 2020a
	75-69-4	Trichlorofluoromethane	NC	3.5E+4	mg/kg	USEPA, 2020a
	76-13-1	Trichlorotrifluoroethane	NC	2.8E+3	mg/kg	USEPA, 2020a
	75-01-4	Vinyl Chloride	C	1.7E+0	mg/kg	USEPA, 2020a

Footnotes

[a] All RBSL are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.

[b] NYSDEC & NYSDOH (2006) derived non-cancer RBSLs using a THQ of 1.0. GSI divided these non-cancer RBSLs by 10 to present values with THQ of 0.1. The New York soil cleanup objectives are for commercial land use.

[c] If a RBSL was not available for the specified chemical, a RBSL for a similar chemical was identified.

[d] Calcium, magnesium, potassium, and sodium are considered essential nutrients at low levels (USEPA, 1989, 2018).

[e] At the request of NYSDEC/USEPA, carcinogenic PAHs will be screened using a toxic equivalency approach. Toxic equivalents are based on the relative potency of each compound relative to BaP. See Appendix B Table B3.

Notes

CDTSC = California Department of Toxic Substances Control
"--" = no value is available
NYSDEC = New York State Department of Environmental Conservation
NYSDOH = New York State Department of Health
RBSL = risk-based screening level
THQ = target hazard quotient
USEPA = United States Environmental Protection Agency

References

CDTSC. (2019). *Human Health Risk Assessment (HHRA) Note Number 10, Toxicity Criteria*. California Department of Toxic Substances Control.

NYSDEC and NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document.* New York State Department of Environmental Conservation and New York State Department of Health.

NYSDEC. (2010). *Final Commissioner Policy, CP-51, Soil Cleanup Guidance*. New York State Department of Environmental Conservation, Alexander B. Grannis, Commissioner.

NYSDEC. (2021). *Sampling, Analysis, and Assessment of Per- and PolyFluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs.* New York State Department of Environmental Conservation. January.

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A)*. U.S. Environmental Protection Agency.

USEPA. (2018). *Region 4 Human Health Risk Assessment Supplemental Guidance. March 2018 Update.* Scientific Support Section, Supefund Division, U.S. Environmental Protection Agency Region 4.

USEPA. (2020a). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency.

USEPA. (2021). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency. Updated in May 2021

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TABLE B2.3
Current and Future Residential Groundwater Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
PFAS	375-22-4	Heptafluorobutanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	375-73-5	Perfluorobutanesulfonic acid	NC	6.0E-1	µg/L	USEPA, 2021
	335-77-3	Perfluorodecane sulfonic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	335-76-2	Perfluorodecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	307-55-1	Perfluorododecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	375-92-8	Perfluoroheptane sulfonate	NC	1.0E-1	µg/L	NYSDEC, 2021
	375-85-9	Perfluoroheptanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	355-46-4	Perfluorohexane sulfonic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	307-24-4	Perfluorohexanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	375-95-1	Perfluorononanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	754-91-6	Perfluorooctane sulfonamide	NC	1.0E-1	µg/L	NYSDEC, 2021
	1763-23-1	Perfluorooctanesulfonic acid	NC	4.0E-2	µg/L	USEPA, 2019
	335-67-1	Perfluorooctanoic acid	NC	4.0E-2	µg/L	USEPA, 2019
	2706-90-3	Perfluoropentanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	376-06-7	Perfluorotetradecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	72629-94-8	Perfluorotridecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	2058-94-8	Perfluoroundecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	39108-34-4	Sodium 1H,1H,2H,2H-perfluordecane sulfonate (8:2)	NC	1.0E-1	µg/L	NYSDEC, 2021
	27619-97-2	Sodium 1h,1h,2h,2h-perfluorooctane sulfonate (6:2)	NC	1.0E-1	µg/L	NYSDEC, 2021
		Total PFAS	NC	5.0E-1	µg/L	NYSDEC, 2021
Metals	7429-90-5	Aluminum	NC	2.0E+3	µg/L	USEPA, 2020a
	7440-36-0	Antimony	NC	7.8E-1	µg/L	USEPA, 2020a
	7440-38-2	Arsenic	C	5.2E-2	µg/L	USEPA, 2020a
	7440-39-3	Barium	NC	3.8E+2	µg/L	USEPA, 2020a
	7440-41-7	Beryllium	NC	2.5E+0	µg/L	USEPA, 2020a
	7440-43-9	Cadmium	NC	9.2E-1	µg/L	USEPA, 2020a
	7440-70-2	Calcium	--	--	--	USEPA, 1989, 2018
	7440-47-3	Chromium	NC	3.5E-2	µg/L	Chromium VI (USEPA, 2020a)
	7440-48-4	Cobalt	NC	6.0E-1	µg/L	USEPA, 2020a
	7440-50-8	Copper	NC	8.0E+1	µg/L	USEPA, 2020a
	7439-89-6	Iron	NC	1.4E+3	µg/L	USEPA, 2020a
	7439-92-1	Lead	NC	1.5E+1	µg/L	USEPA, 2020a
	7439-95-4	Magnesium	--	--	--	USEPA, 1989, 2018
	7439-96-5	Manganese	NC	4.3E+1	µg/L	USEPA, 2020a
	7439-97-6	Mercury	NC	6.3E-2	µg/L	USEPA, 2020a
	7440-02-0	Nickel	NC	3.9E+1	µg/L	USEPA, 2020a
	7440-09-7	Potassium	--	--	--	USEPA, 1989, 2018
	7782-49-2	Selenium	NC	1.0E+1	µg/L	USEPA, 2020a
	7440-22-4	Silver	NC	9.4E+0	µg/L	USEPA, 2020a
	7440-23-5	Sodium	--	--	--	USEPA, 1989, 2018
	7440-28-0	Thallium	NC	2.0E-2	µg/L	USEPA, 2020a
	7440-62-2	Vanadium	NC	8.6E+0	µg/L	USEPA, 2020a
	7440-66-6	Zinc	NC	6.0E+2	µg/L	USEPA, 2020a
PAHs	92-52-4	1,1'-Biphenyl	NC	8.3E-2	µg/L	USEPA, 2020a
	91-57-6	2-Methylnaphthalene	NC	3.6E+0	µg/L	USEPA, 2020a
	88-74-4	2-Nitroaniline	NC	1.9E+1	µg/L	USEPA, 2020a
	99-09-2	3-Nitroaniline	--	--	--	--
	100-01-6	4-Nitroaniline	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	83-32-9	Acenaphthene	NC	5.3E+1	µg/L	USEPA, 2020a
	208-96-8	Acenaphthylene	--	--	--	--
	120-12-7	Anthracene	NC	1.8E+2	µg/L	USEPA, 2020a
	56-55-3	Benzo[a]anthracene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	50-32-8	Benzo[a]pyrene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	205-99-2	Benzo[b]fluoranthene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	191-24-2	Benzo[g,h,i]perylene	--	--	--	--
	207-08-9	Benzo[k]fluoranthene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	218-01-9	Chrysene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	53-70-3	Dibenzo[a,h]anthracene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	132-64-9	Dibenzofuran	NC	7.9E-1	µg/L	USEPA, 2020a
	206-44-0	Fluoranthene	NC	8.0E+1	µg/L	USEPA, 2020a
	86-73-7	Fluorene	NC	2.9E+1	µg/L	USEPA, 2020a
	193-39-5	Indeno[1,2,3-cd]pyrene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	91-20-3	Naphthalene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	85-01-8	Phenanthrene	NC	1.2E+1	µg/L	Pyrene (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	129-00-0	Pyrene	NC	1.2E+1	µg/L	USEPA, 2020a
	--	BaP toxic equivalents[e]	C	2.5E-2	µg/L	USEPA, 2020a
PCBs	12674-11-2	Aroclor 1016	NC	1.4E-1	µg/L	USEPA, 2020a
	11104-28-2	Aroclor 1221	NC	1.4E-1	µg/L	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11141-16-5	Aroclor 1232	NC	1.4E-1	µg/L	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	53469-21-9	Aroclor 1242	NC	1.4E-1	µg/L	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	12672-29-6	Aroclor 1248	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11097-69-1	Aroclor 1254	C	7.8E-3	µg/L	USEPA, 2020a
	11096-82-5	Aroclor 1260	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	37324-23-5	Aroclor 1262	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11100-14-4	Aroclor 1268	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	1336-36-3	Total PCBs	C	9.0E-2	µg/L	NYCRR, 2020

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TABLE B2.3
Current and Future Residential Groundwater Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Pesticides	72-54-8	4,4'-DDD	NC	6.3E-3	µg/L	USEPA, 2020a
	72-55-9	4,4'-DDE	C	4.6E-2	µg/L	USEPA, 2020a
	50-29-3	4,4'-DDT	C	2.3E-1	µg/L	USEPA, 2020a
	309-00-2	Aldrin	C	9.2E-4	µg/L	USEPA, 2020a
	319-84-6	alpha-Benzenehexachloride	C	7.2E-3	µg/L	USEPA, 2020a
	1912-24-9	Atrazine	C	3.0E-1	µg/L	USEPA, 2020a
	319-85-7	beta-Benzenehexachloride	C	2.5E-2	µg/L	USEPA, 2020a
	86-74-8	Carbazole	--	--	--	--
	5103-71-9	cis-Chlordane	NC	3.6E-1	µg/L	USEPA, 2021
	319-86-8	delta-Benzenehexachloride	C	4.0E-2	µg/L	NYCRR, 2020
	60-57-1	Dieldrin	C	1.8E-3	µg/L	USEPA, 2020a
	959-98-8	Endosulfan I	NC	1.0E+1	µg/L	Endosulfan (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	33213-65-9	Endosulfan II	NC	1.0E+1	µg/L	Endosulfan (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	1031-07-8	Endosulfan sulfate	NC	1.1E+1	µg/L	USEPA, 2020a
	72-20-8	Endrin	NC	2.3E-1	µg/L	USEPA, 2020a
	7421-93-4	Endrin aldehyde	NC	5.0E+0	µg/L	NYCRR, 2020
	53494-70-5	Endrin ketone	NC	5.0E+0	µg/L	NYCRR, 2020
	58-89-9	gamma-Benzenehexachloride	C	4.2E-2	µg/L	USEPA, 2020a
	76-44-8	Heptachlor	C	1.4E-3	µg/L	USEPA, 2020a
	1024-57-3	Heptachlor epoxide	C	1.4E-3	µg/L	USEPA, 2020a
	72-43-5	Methoxychlor	NC	3.7E+0	µg/L	USEPA, 2020a
	8001-35-2	Toxaphene	C	7.1E-2	µg/L	USEPA, 2020a
	5103-74-2	trans-Chlordane	NC	1.0E+0	µg/L	USEPA, 2021
Phenols	58-90-2	2,3,4,6-Tetrachlorophenol	NC	2.4E+1	µg/L	USEPA, 2020a
	95-95-4	2,4,5-Trichlorophenol	NC	1.2E+2	µg/L	USEPA, 2020a
	88-06-2	2,4,6-Trichlorophenol	NC	1.2E+0	µg/L	USEPA, 2020a
	120-83-2	2,4-Dichlorophenol	NC	4.6E+0	µg/L	USEPA, 2020a
	95-57-8	2-Chlorophenol	NC	9.1E+0	µg/L	USEPA, 2020a
	87-86-5	Pentachlorophenol	C	4.1E-2	µg/L	USEPA, 2020a
Semi-volatiles	120-82-1	1,2,4-Trichlorobenzene	NC	4.0E-1	µg/L	USEPA, 2020a
	95-50-1	1,2-Dichlorobenzene	NC	3.0E+1	µg/L	USEPA, 2020a
	541-73-1	1,3-Dichlorobenzene	C	3.0E+0	µg/L	NYCRR, 2020
	106-46-7	1,4-Dichlorobenzene	C	4.8E-1	µg/L	USEPA, 2020a
	105-67-9	2,4-Dimethylphenol	NC	3.6E+1	µg/L	USEPA, 2020a
	51-28-5	2,4-Dinitrophenol	NC	3.9E+0	µg/L	USEPA, 2020a
	121-14-2	2,4-Dinitrotoluene	C	2.4E-1	µg/L	USEPA, 2020a
	606-20-2	2,6-Dinitrotoluene	C	4.9E-2	µg/L	USEPA, 2020a
	91-58-7	2-Chloronaphthalene	NC	7.5E+1	µg/L	USEPA, 2020a
	95-48-7	2-Methylphenol	NC	9.3E+1	µg/L	USEPA, 2020a
	88-75-5	2-Nitrophenol	--	--	--	--
	91-94-1	3,3'-Dichlorobenzidine	C	1.3E-1	µg/L	USEPA, 2020a
	534-52-1	4,6-Dinitro-2-methylphenol	NC	1.5E-1	µg/L	USEPA, 2020a
	101-55-3	4-Bromophenyl-phenylether	--	--	--	--
	59-50-7	4-Chloro-3-methylphenol	NC	1.4E+2	µg/L	USEPA, 2020a
	106-47-8	4-Chloroaniline	C	3.7E-1	µg/L	USEPA, 2020a
	7005-72-3	4-Chlorophenyl-phenyl ether	--	--	--	--
	106-44-5	4-Methylphenol	NC	1.9E+2	µg/L	USEPA, 2020a
	100-02-7	4-Nitrophenol	--	--	--	--
	98-86-2	Acetophenone	NC	1.9E+2	µg/L	USEPA, 2020a
	100-52-7	Benzaldehyde	C	1.9E+1	µg/L	USEPA, 2020a
	85-68-7	Benzyl n-butyl phthalate	C	1.6E+1	µg/L	USEPA, 2020a
	111-91-1	bis(2-Chloroethoxy)methane	NC	5.9E+0	µg/L	USEPA, 2020a
	111-44-4	Bis(2-chloroethyl)ether	C	1.4E-2	µg/L	USEPA, 2020a
	117-81-7	bis(2-Ethylhexyl)phthalate	C	5.6E+0	µg/L	USEPA, 2020a
	105-60-2	Caprolactam	NC	9.9E+2	µg/L	USEPA, 2020a
	84-66-2	Diethyl phthalate	NC	1.5E+3	µg/L	USEPA, 2020a
	131-11-3	Dimethyl phthalate	--	--	--	--
	84-74-2	Di-n-butyl phthalate	NC	9.0E+1	µg/L	USEPA, 2020a
	117-84-0	Di-n-octylphthalate	NC	2.0E+1	µg/L	USEPA, 2020a
	118-74-1	Hexachlorobenzene	C	9.8E-3	µg/L	USEPA, 2020a
	87-68-3	Hexachlorobutadiene	C	1.4E-1	µg/L	USEPA, 2020a
	77-47-4	Hexachlorocyclopentadiene	NC	4.1E-2	µg/L	USEPA, 2020a
	67-72-1	Hexachloroethane	C	3.3E-1	µg/L	USEPA, 2020a
	78-59-1	Isophorone	C	7.8E+1	µg/L	USEPA, 2020a
	98-95-3	Nitrobenzene	C	1.4E-1	µg/L	USEPA, 2020a
	621-64-7	N-Nitrosodi-n-propylamine	C	1.1E-2	µg/L	USEPA, 2020a
	86-30-6	N-Nitrosodiphenylamine	C	1.2E+1	µg/L	USEPA, 2020a
	108-95-2	Phenol	NC	5.8E+2	µg/L	USEPA, 2020a

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TABLE B2.3
Current and Future Residential Groundwater Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	8.0E+2	µg/L	USEPA, 2020a
	79-34-5	1,1,2,2-Tetrachloroethane	C	7.6E-2	µg/L	USEPA, 2020a
	79-00-5	1,1,2-Trichloroethane	NC	4.1E-2	µg/L	USEPA, 2020a
	75-34-3	1,1-Dichloroethane	C	2.8E+0	µg/L	USEPA, 2020a
	75-35-4	1,1-Dichloroethene	NC	2.8E+1	µg/L	USEPA, 2020a
	87-61-6	1,2,3-Trichlorobenzene	NC	7.0E-1	µg/L	USEPA, 2020a
	95-94-3	1,2,4,5-Tetrachlorobenzene	NC	1.7E-1	µg/L	USEPA, 2020a
	96-12-8	1,2-Dibromo-3-chloropropane	C	3.3E-4	µg/L	USEPA, 2020a
	106-93-4	1,2-Dibromoethane	C	7.5E-3	µg/L	USEPA, 2020a
	107-06-2	1,2-Dichloroethane	C	1.7E-1	µg/L	USEPA, 2020a
	78-87-5	1,2-Dichloropropane	NC	8.2E-1	µg/L	USEPA, 2020a
	123-91-1	1,4-Dioxane	C	4.6E-1	µg/L	USEPA, 2020a
	78-93-3	2-Butanone	NC	5.6E+2	µg/L	USEPA, 2020a
	591-78-6	2-Hexanone	NC	3.8E+0	µg/L	USEPA, 2020a
	108-10-1	4-Methyl-2-pentanone	NC	6.3E+2	µg/L	USEPA, 2020a
	67-64-1	Acetone	NC	1.4E+3	µg/L	USEPA, 2020a
	71-43-2	Benzene	C	4.6E-1	µg/L	USEPA, 2020a
	39638-32-9	Bis(2-chloroisopropyl) ether	--	--	--	--
	74-97-5	Bromochloromethane	NC	8.3E+0	µg/L	USEPA, 2020a
	75-27-4	Bromodichloromethane	C	1.3E-1	µg/L	USEPA, 2020a
	75-25-2	Bromoform	C	3.3E+0	µg/L	USEPA, 2020a
	74-83-9	Bromomethane	NC	7.5E-1	µg/L	USEPA, 2020a
	75-15-0	Carbon disulfide	NC	8.1E+1	µg/L	USEPA, 2020a
	56-23-5	Carbon Tetrachloride	C	4.6E-1	µg/L	USEPA, 2020a
	108-90-7	Chlorobenzene	NC	7.8E+0	µg/L	USEPA, 2020a
	75-00-3	Chloroethane	NC	2.1E+3	µg/L	USEPA, 2020a
	67-66-3	Chloroform	C	2.2E-1	µg/L	USEPA, 2020a
	74-87-3	Chloromethane	NC	1.9E+1	µg/L	USEPA, 2020a
	156-59-2	cis-1,2-Dichloroethene	NC	3.6E+0	µg/L	USEPA, 2020a
	10061-01-5	cis-1,3-Dichloropropene	C	4.7E-1	µg/L	1,3-Dichloropropene (USEPA, 2020a)
	110-82-7	Cyclohexane	NC	1.3E+3	µg/L	USEPA, 2020a
	124-48-1	Dibromochloromethane	C	8.7E-1	µg/L	USEPA, 2020a
	75-71-8	Dichlorodifluoromethane	NC	2.0E+1	µg/L	USEPA, 2020a
	100-41-4	Ethylbenzene	C	1.5E+0	µg/L	USEPA, 2020a
	98-82-8	Isopropylbenzene	NC	4.5E+1	µg/L	USEPA, 2020a
	179601-23-1	m,p-Xylene	NC	1.9E+1	µg/L	Xylene (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	79-20-9	Methyl acetate	NC	2.0E+3	µg/L	USEPA, 2020a
	1634-04-4	Methyl tert-butyl ether	C	1.4E+1	µg/L	USEPA, 2020a
	108-87-2	Methylcyclohexane	NC	1.3E+3	µg/L	Cyclohexane (USEPA, 2020a; per CDTSC, 2019)
	75-09-2	Methylene Chloride	NC	1.1E+1	µg/L	USEPA, 2020a
	95-47-6	o-Xylene	NC	1.9E+1	µg/L	USEPA, 2020a
	100-42-5	Styrene	NC	1.2E+2	µg/L	USEPA, 2020a
	127-18-4	Tetrachloroethene	NC	4.1E+0	µg/L	USEPA, 2020a
	108-88-3	Toluene	NC	1.1E+2	µg/L	USEPA, 2020a
	156-60-5	trans-1,2-Dichloroethene	NC	6.8E+0	µg/L	USEPA, 2020a
	10061-02-6	trans-1,3-Dichloropropene	C	4.7E-1	µg/L	1,3-Dichloropropene (USEPA, 2020a)
	79-01-6	Trichloroethene	NC	2.8E-1	µg/L	USEPA, 2020a
	75-69-4	Trichlorofluoromethane	NC	5.2E+2	µg/L	USEPA, 2020a
	76-13-1	Trichlorotrifluoroethane	NC	1.0E+3	µg/L	USEPA, 2020a
	75-01-4	Vinyl Chloride	C	1.9E-2	µg/L	USEPA, 2020a
	1330-20-7	Xylenes	NC	1.9E+1	µg/L	USEPA, 2020a

Footnotes

[a] All RBSL are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.
[b] NYSDEC & NYSDOH and Health Canada derived non-cancer RBSLs using a THQ of 1.0. GSI divided these non-cancer RBSLs by 10 to present values with THQ of 0.1.
[c] If a RBSL was not available for the specified chemical, a RBSL for a similar chemical was identified.
[d] Calcium, magnesium, potassium, and sodium are considered essential nutrients at low levels (USEPA, 1989, 2018) and were removed from this table.
[e] At the request of NYSDEC/USEPA, carcinogenic PAHs will be screened using a toxic equivalency approach. Toxic equivalents are based on the relative potency of each compound relative to BaP. See Appendix B Table B3.

Notes

CDTSC = California Department of Toxic Substances Control
"--" = no value is available
NYCRR = New York Compilation of Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
NYSDOH = New York State Department of Health
RBSL = risk-based screening level
THQ = target hazard quotient
USEPA = United States Environmental Protection Agency

References

CDTSC. (2019). *Human Health Risk Assessment (HHRA) Note Number 10, Toxicity Criteria*. California Department of Toxic Substances Control.

NYSDEC and NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document.* New York State Department of Environmental Conservation and New York State Department of Health.

NYCRR. (2020). *6 NYCRR Part 703.5 Water quality standards for taste-, color- and odor-producing, toxic and other deleterious substances*. Official Compilation of Codes, Rules and Regulations of the State of New York. Groundwater standards were last revised effective March 12, 1998. Per Part I (1) of TOGS 1.1.1 (Division of Water Technical and Operational Guideline Series (TOGS) 1.1.1, June 1998, replaces prior document dated October 22, 1993). Current as of March 2020. Accessed August 28, 2020.

NYSDEC. (2021). *Sampling, Analysis, and Assessment of Per- and PolyFluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs.* New York State Department of Environmental Conservation. January.

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A)*. U.S. Environmental Protection Agency.

USEPA. (2018). *Region 4 Human Health Risk Assessment Supplemental Guidance. March 2018 Update.* Scientific Support Section, Supefund Division, U.S. Environmental Protection Agency Region 4.

USEPA. (2019). *Interim Recommendations to Address Groundwater Contaminated with Perfluorooctanoic Acid and Perfluorooctanesulfonate. OLEM Directive No. 9283.1-47 December.*

USEPA. (2020a). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency.

USEPA. (2021). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency. Updated in May 2021

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TABLE B2.4
Current and Future Resident and Recreator Surface Water Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
PFAS	375-22-4	Heptafluorobutanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	375-73-5	Perfluorobutanesulfonic acid	NC	6.0E-1	µg/L	USEPA, 2021
	335-77-3	Perfluorodecane sulfonic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	335-76-2	Perfluorodecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	307-55-1	Perfluorododecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	375-85-9	Perfluoroheptanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	355-46-4	Perfluorohexane sulfonic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	307-24-4	Perfluorohexanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	375-95-1	Perfluorononanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	754-91-6	Perfluorooctane sulfonamide	NC	1.0E-1	µg/L	NYSDEC, 2021
	1763-23-1	Perfluorooctanesulfonic acid	NC	4.0E-2	µg/L	USEPA, 2019
	335-67-1	Perfluorooctanoic acid	NC	4.0E-2	µg/L	USEPA, 2019
	2706-90-3	Perfluoropentanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	376-06-7	Perfluorotetradecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	72629-94-8	Perfluorotridecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	2058-94-8	Perfluoroundecanoic acid	NC	1.0E-1	µg/L	NYSDEC, 2021
	39108-34-4	Sodium 1H,1H,2H,2H-perfluordecane sulfonate (8:2)	NC	1.0E-1	µg/L	NYSDEC, 2021
	27619-97-2	Sodium 1h,1h,2h,2h-perfluorooctane sulfonate (6:2)	NC	1.0E-1	µg/L	NYSDEC, 2021
		Total PFAS	NC	5.0E-1	µg/L	NYSDEC, 2021
Metals	7429-90-5	Aluminum	NC	2.0E+3	µg/L	USEPA 2020a
	7440-36-0	Antimony	NC	7.8E-1	µg/L	USEPA 2020a
	7440-38-2	Arsenic	C	5.2E-2	µg/L	USEPA 2020a
	7440-39-3	Barium	NC	3.8E+2	µg/L	USEPA 2020a
	7440-41-7	Beryllium	NC	2.5E+0	µg/L	USEPA 2020a
	7440-43-9	Cadmium	NC	9.2E-1	µg/L	USEPA 2020a
	7440-70-2	Calcium	--	--	--	USEPA, 1989, 2018
	7440-47-3	Chromium	NC	3.5E-2	µg/L	Chromium VI (USEPA, 2020a)
	7440-48-4	Cobalt	NC	6.0E-1	µg/L	USEPA 2020a
	7440-50-8	Copper	NC	8.0E+1	µg/L	USEPA 2020a
	7439-89-6	Iron	NC	1.4E+3	µg/L	USEPA 2020a
	7439-92-1	Lead	NC	1.5E+1	µg/L	USEPA 2020a
	7439-95-4	Magnesium	--	--	--	USEPA, 1989, 2018
	7439-96-5	Manganese	NC	4.3E+1	µg/L	USEPA 2020a
	7439-97-6	Mercury	NC	6.3E-2	µg/L	USEPA 2020a
	7440-02-0	Nickel	NC	3.9E+1	µg/L	USEPA 2020a
	7440-09-7	Potassium	--	--	--	USEPA, 1989, 2018
	7782-49-2	Selenium	NC	1.0E+1	µg/L	USEPA 2020a
	7440-22-4	Silver	NC	9.4E+0	µg/L	USEPA 2020a
	7440-23-5	Sodium	--	--	--	USEPA, 1989, 2018
	7440-28-0	Thallium	NC	2.0E-2	µg/L	USEPA 2020a
	7440-62-2	Vanadium	NC	8.6E+0	µg/L	USEPA 2020a
	7440-66-6	Zinc	NC	6.0E+2	µg/L	USEPA 2020a
PAH	92-52-4	1,1'-Biphenyl	NC	8.3E-2	µg/L	USEPA 2020a
	91-57-6	2-Methylnaphthalene	NC	3.6E+0	µg/L	USEPA 2020a
	88-74-4	2-Nitroaniline	NC	1.9E+1	µg/L	USEPA 2020a
	99-09-2	3-Nitroaniline	--	--	--	--
	100-01-6	4-Nitroaniline	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	83-32-9	Acenaphthene	NC	5.3E+1	µg/L	USEPA 2020a
	208-96-8	Acenaphthylene	--	--	--	--
	120-12-7	Anthracene	NC	1.8E+2	µg/L	USEPA 2020a
	56-55-3	Benzo[a]anthracene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	50-32-8	Benzo[a]pyrene	C	2.5E-2	µg/L	USEPA 2020a
	205-99-2	Benzo[b]fluoranthene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	191-24-2	Benzo[g,h,i]perylene	--	--	--	--
	207-08-9	Benzo[k]fluoranthene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	218-01-9	Chrysene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	53-70-3	Dibenzo[a,h]anthracene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	132-64-9	Dibenzofuran	NC	7.9E-1	µg/L	USEPA 2020a
	206-44-0	Fluoranthene	NC	8.0E+1	µg/L	USEPA 2020a
	86-73-7	Fluorene	NC	2.9E+1	µg/L	USEPA 2020a
	193-39-5	Indeno[1,2,3-cd]pyrene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	91-20-3	Naphthalene	C	2.5E-2	µg/L	BaP (USEPA, 2020a)
	85-01-8	Phenanthrene	NC	1.2E+1	µg/L	Pyrene (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	129-00-0	Pyrene	NC	1.2E+1	µg/L	USEPA 2020a
	--	BaP toxic equivalents[e]	C	2.5E-2	µg/L	USEPA 2020a
PCBs	12674-11-2	Aroclor 1016	NC	1.4E-1	µg/L	USEPA, 2020a
	11104-28-2	Aroclor 1221	NC	1.4E-1	µg/L	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11141-16-5	Aroclor 1232	NC	1.4E-1	µg/L	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	53469-21-9	Aroclor 1242	NC	1.4E-1	µg/L	Aroclor 1016 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	12672-29-6	Aroclor 1248	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11097-69-1	Aroclor 1254	C	7.8E-3	µg/L	USEPA, 2020a
	11096-82-5	Aroclor 1260	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	37324-23-5	Aroclor 1262	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	11100-14-4	Aroclor 1268	C	7.8E-3	µg/L	Aroclor 1254 (USEPA, 2020a; per NYSDEC/USEPA comments on Work Plan)
	1336-36-3	Total PCBs	C	9.0E-2	µg/L	NYCRR, 2020

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TABLE B2.4
Current and Future Resident and Recreator Surface Water Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Pesticides	72-54-8	4,4'-DDD	NC	6.3E-3	µg/L	USEPA 2020a
	72-55-9	4,4'-DDE	C	4.6E-2	µg/L	USEPA 2020a
	50-29-3	4,4'-DDT	C	2.3E-1	µg/L	USEPA 2020a
	309-00-2	Aldrin	C	9.2E-4	µg/L	USEPA 2020a
	319-84-6	alpha-Benzenehexachloride	C	7.2E-3	µg/L	USEPA 2020a
	1912-24-9	Atrazine	C	3.0E-1	µg/L	USEPA 2020a
	319-85-7	beta-Benzenehexachloride	C	2.5E-2	µg/L	USEPA 2020a
	86-74-8	Carbazole	C	8.5E+1	µg/L	USEPA, 2020a
	5103-71-9	cis-Chlordane	NC	3.6E-1	µg/L	USEPA, 2021
	319-86-8	delta-Benzenehexachloride	C	4.0E-2	µg/L	NYCRR, 2020
	60-57-1	Dieldrin	C	1.8E-3	µg/L	USEPA 2020a
	959-98-8	Endosulfan I	NC	2.0E+0	µg/L	USEPA 2020b
	33213-65-9	Endosulfan II	NC	2.0E+0	µg/L	USEPA 2020b
	1031-07-8	Endosulfan sulfate	NC	1.1E+1	µg/L	USEPA 2020a
	72-20-8	Endrin	NC	2.3E-1	µg/L	USEPA 2020a
	7421-93-4	Endrin aldehyde	NC	1.0E-1	µg/L	USEPA 2020b
	53494-70-5	Endrin ketone	NC	5.0E+0	µg/L	NYCRR, 2020
	58-89-9	gamma-Benzenehexachloride	C	4.2E-2	µg/L	USEPA 2020a
	76-44-8	Heptachlor	C	1.4E-3	µg/L	USEPA 2020a
	1024-57-3	Heptachlor epoxide	C	1.4E-3	µg/L	USEPA 2020a
	72-43-5	Methoxychlor	NC	3.7E+0	µg/L	USEPA 2020a
	8001-35-2	Toxaphene	C	7.1E-2	µg/L	USEPA 2020a
	5103-74-2	trans-Chlordane	NC	1.0E+0	µg/L	USEPA, 2021
Phenols	58-90-2	2,3,4,6-Tetrachlorophenol	NC	2.4E+1	µg/L	USEPA 2020a
	95-95-4	2,4,5-Trichlorophenol	NC	1.2E+2	µg/L	USEPA 2020a
	88-06-2	2,4,6-Trichlorophenol	NC	1.2E+0	µg/L	USEPA 2020a
	120-83-2	2,4-Dichlorophenol	NC	4.6E+0	µg/L	USEPA 2020a
	95-57-8	2-Chlorophenol	NC	9.1E+0	µg/L	USEPA 2020a
	87-86-5	Pentachlorophenol	C	4.1E-2	µg/L	USEPA 2020a
Semi-volatiles	120-82-1	1,2,4-Trichlorobenzene	NC	4.0E-1	µg/L	USEPA 2020a
	95-50-1	1,2-Dichlorobenzene	NC	3.0E+1	µg/L	USEPA 2020a
	541-73-1	1,3-Dichlorobenzene	C	7.0E-1	µg/L	USEPA 2020b
	106-46-7	1,4-Dichlorobenzene	C	4.8E-1	µg/L	USEPA 2020a
	105-67-9	2,4-Dimethylphenol	NC	3.6E+1	µg/L	USEPA 2020a
	51-28-5	2,4-Dinitrophenol	NC	3.9E+0	µg/L	USEPA 2020a
	121-14-2	2,4-Dinitrotoluene	C	2.4E-1	µg/L	USEPA 2020a
	606-20-2	2,6-Dinitrotoluene	C	4.9E-2	µg/L	USEPA 2020a
	91-58-7	2-Chloronaphthalene	NC	7.5E+1	µg/L	USEPA 2020a
	95-48-7	2-Methylphenol	NC	9.3E+1	µg/L	USEPA 2020a
	88-75-5	2-Nitrophenol	--	--	--	--
	91-94-1	3,3'-Dichlorobenzidine	C	1.3E-1	µg/L	USEPA 2020a
	534-52-1	4,6-Dinitro-2-methylphenol	NC	1.5E-1	µg/L	USEPA 2020a
	101-55-3	4-Bromophenyl-phenylether	--	--	--	--
	59-50-7	4-Chloro-3-methylphenol	NC	1.4E+2	µg/L	USEPA 2020a
	106-47-8	4-Chloroaniline	C	3.7E-1	µg/L	USEPA 2020a
	7005-72-3	4-Chlorophenyl-phenyl ether	--	--	--	--
	106-44-5	4-Methylphenol	NC	1.9E+2	µg/L	USEPA 2020a
	100-02-7	4-Nitrophenol	--	--	--	--
	98-86-2	Acetophenone	NC	1.9E+2	µg/L	USEPA 2020a
	100-52-7	Benzaldehyde	C	1.9E+1	µg/L	USEPA 2020a
	85-68-7	Benzyl n-butyl phthalate	C	1.6E+1	µg/L	USEPA 2020a
	111-91-1	bis(2-Chloroethoxy)methane	NC	5.9E+0	µg/L	USEPA 2020a
	111-44-4	Bis(2-chloroethyl)ether	C	1.4E-2	µg/L	USEPA 2020a
	117-81-7	bis(2-Ethylhexyl)phthalate	C	5.6E+0	µg/L	USEPA 2020a
	105-60-2	Caprolactam	NC	9.9E+2	µg/L	USEPA 2020a
	84-66-2	Diethyl phthalate	NC	1.5E+3	µg/L	USEPA 2020a
	131-11-3	Dimethyl phthalate	NC	2.0E+2	µg/L	USEPA 2020b
	84-74-2	Di-n-butyl phthalate	NC	9.0E+1	µg/L	USEPA 2020a
	117-84-0	Di-n-octylphthalate	NC	2.0E+1	µg/L	USEPA 2020a
	118-74-1	Hexachlorobenzene	C	9.8E-3	µg/L	USEPA 2020a
	87-68-3	Hexachlorobutadiene	C	1.4E-1	µg/L	USEPA 2020a
	77-47-4	Hexachlorocyclopentadiene	NC	4.1E-2	µg/L	USEPA 2020a
	67-72-1	Hexachloroethane	C	3.3E-1	µg/L	USEPA 2020a
	78-59-1	Isophorone	C	7.8E+1	µg/L	USEPA 2020a
	98-95-3	Nitrobenzene	C	1.4E-1	µg/L	USEPA 2020a
	621-64-7	N-Nitrosodi-n-propylamine	C	1.1E-2	µg/L	USEPA 2020a
	86-30-6	N-Nitrosodiphenylamine	C	1.2E+1	µg/L	USEPA 2020a
	108-95-2	Phenol	NC	5.8E+2	µg/L	USEPA 2020a

TABLE B2.4
Current and Future Resident and Recreator Surface Water Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c,d,e]
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	8.0E+2	µg/L	USEPA 2020a
	79-34-5	1,1,2,2-Tetrachloroethane	C	7.6E-2	µg/L	USEPA 2020a
	79-00-5	1,1,2-Trichloroethane	NC	4.1E-2	µg/L	USEPA 2020a
	75-34-3	1,1-Dichloroethane	C	2.8E+0	µg/L	USEPA 2020a
	75-35-4	1,1-Dichloroethene	NC	2.8E+1	µg/L	USEPA 2020a
	87-61-6	1,2,3-Trichlorobenzene	NC	7.0E-1	µg/L	USEPA 2020a
	95-94-3	1,2,4,5-Tetrachlorobenzene	NC	1.7E-1	µg/L	USEPA 2020a
	96-12-8	1,2-Dibromo-3-chloropropane	C	3.3E-4	µg/L	USEPA 2020a
	106-93-4	1,2-Dibromoethane	C	7.5E-3	µg/L	USEPA 2020a
	107-06-2	1,2-Dichloroethane	C	1.7E-1	µg/L	USEPA 2020a
	78-87-5	1,2-Dichloropropane	NC	8.2E-1	µg/L	USEPA 2020a
	123-91-1	1,4-Dioxane	C	4.6E-1	µg/L	USEPA 2020a
	78-93-3	2-Butanone	NC	5.6E+2	µg/L	USEPA 2020a
	591-78-6	2-Hexanone	NC	3.8E+0	µg/L	USEPA 2020a
	108-10-1	4-Methyl-2-pentanone	NC	6.3E+2	µg/L	USEPA 2020a
	67-64-1	Acetone	NC	1.4E+3	µg/L	USEPA 2020a
	71-43-2	Benzene	C	4.6E-1	µg/L	USEPA 2020a
	39638-32-9	Bis(2-chloroisopropyl) ether	--	--	--	--
	74-97-5	Bromochloromethane	NC	8.3E+0	µg/L	USEPA 2020a
	75-27-4	Bromodichloromethane	C	1.3E-1	µg/L	USEPA 2020a
	75-25-2	Bromoform	C	3.3E+0	µg/L	USEPA 2020a
	74-83-9	Bromomethane	NC	7.5E-1	µg/L	USEPA 2020a
	75-15-0	Carbon disulfide	NC	8.1E+1	µg/L	USEPA 2020a
	56-23-5	Carbon Tetrachloride	C	4.6E-1	µg/L	USEPA 2020a
	108-90-7	Chlorobenzene	NC	7.8E+0	µg/L	USEPA 2020a
	75-00-3	Chloroethane	NC	2.1E+3	µg/L	USEPA 2020a
	67-66-3	Chloroform	C	2.2E-1	µg/L	USEPA 2020a
	74-87-3	Chloromethane	NC	1.9E+1	µg/L	USEPA 2020a
	156-59-2	cis-1,2-Dichloroethene	NC	3.6E+0	µg/L	USEPA 2020a
	10061-01-5	cis-1,3-Dichloropropene	C	4.7E-1	µg/L	1,3-Dichloropropene (USEPA, 2020a)
	110-82-7	Cyclohexane	NC	1.3E+3	µg/L	USEPA 2020a
	124-48-1	Dibromochloromethane	C	8.7E-1	µg/L	USEPA 2020a
	75-71-8	Dichlorodifluoromethane	NC	2.0E+1	µg/L	USEPA 2020a
	100-41-4	Ethylbenzene	C	1.5E+0	µg/L	USEPA 2020a
	98-82-8	Isopropylbenzene	NC	4.5E+1	µg/L	USEPA 2020a
	79601-23-1	m,p-Xylene	NC	1.9E+1	µg/L	Xylene (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	79-20-9	Methyl acetate	NC	2.0E+3	µg/L	USEPA 2020a
	1634-04-4	Methyl tert-butyl ether	C	1.4E+1	µg/L	USEPA 2020a
	108-87-2	Methylcyclohexane	NC	1.3E+3	µg/L	Cyclohexane (USEPA, 2020a; per CDTSC, 2019)
	75-09-2	Methylene Chloride	NC	1.1E+1	µg/L	USEPA 2020a
	95-47-6	o-Xylene	NC	1.9E+1	µg/L	USEPA 2020a
	100-42-5	Styrene	NC	1.2E+2	µg/L	USEPA 2020a
	127-18-4	Tetrachloroethene	NC	4.1E+0	µg/L	USEPA 2020a
	108-88-3	Toluene	NC	1.1E+2	µg/L	USEPA 2020a
	156-60-5	trans-1,2-Dichloroethene	NC	6.8E+0	µg/L	USEPA 2020a
	10061-02-6	trans-1,3-Dichloropropene	C	4.7E-1	µg/L	1,3-Dichloropropene (USEPA, 2020a)
	79-01-6	Trichloroethene	NC	2.8E-1	µg/L	USEPA 2020a
	75-69-4	Trichlorofluoromethane	NC	5.2E+2	µg/L	USEPA 2020a
	76-13-1	Trichlorotrifluoroethane	NC	1.0E+3	µg/L	USEPA 2020a
	75-01-4	Vinyl Chloride	C	1.9E-2	µg/L	USEPA 2020a

Footnotes

[a] All RBSL are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.

[b] USEPA (2020b) RBSLs consist of ambient water quality criteria (AWQC) that were based on the human health consumption of water plus organism and used a THQ of 1.0. GSI divided these non-cancer RBSLs by 10 to present values with THQ of 0.1.

[c] If a RBSL was not available for the specified chemical, a RBSL for a similar chemical was identified.

[d] Calcium, magnesium, potassium, and sodium are considered essential nutrients at low levels (USEPA, 1989, 2018).

[e] At the request of NYSDEC/USEPA, carcinogenic PAHs will be screened using a toxic equivalency approach. Toxic equivalents are based on the relative potency of each compound relative to BaP. See Appendix B Table B3.

Notes

CDTSC = California Department of Toxic Substances Control
"--" = no value is available
NYCRR = New York Compilation of Codes, Rules and Regulations
NYSDEC = New York State Department of Environmental Conservation
NYSDOH = New York State Department of Health
RBSL = risk-based screening level
THQ = target hazard quotient
USEPA = United States Environmental Protection Agency

References

CDTSC. (2019). *Human Health Risk Assessment (HHRA) Note Number 10, Toxicity Criteria*. California Department of Toxic Substances Control.

NYSDEC and NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document.* New York State Department of Environmental Conservation and New York State Department of Health.

NYCRR. (2020). *6 NYCRR Part 703.5 Water quality standards for taste-, color- and odor-producing, toxic and other deleterious substances*. Official Compilation of Codes, Rules and Regulations of the State of New York. Groundwater standards were last revised effective March 12, 1998. Per Part I (1) of TOGS 1.1.1 (Division of Water Technical and Operational Guideline Series (TOGS) 1.1.1, June 1998, replaces prior document dated October 22, 1993). Current as of March 2020. Accessed August 28, 2020.

NYSDEC. (2021). *Sampling, Analysis, and Assessment of Per- and PolyFluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs.* New York State Department of Environmental Conservation. January.

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A)*. U.S. Environmental Protection Agency.

USEPA. (2018). *Region 4 Human Health Risk Assessment Supplemental Guidance. March 2018 Update.* Scientific Support Section, Supefund Division, U.S. Environmental Protection Agency Region 4.

USEPA. (2019). *Interim Recommendations to Address Groundwater Contaminated with Perfluorooctanoic Acid and Perfluorooctanesulfonate. OLEM Directive No. 9283.1-47 December.*

USEPA. (2020a). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency.

USEPA. (2021). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency. Updated in May 2021

TABLE B2.5
Current and Future Resident and Recreator Sediment Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a]
PFAS	375-73-5	Perfluorobutanesulfonic acid	NC	1.9E+0	mg/kg	USEPA, 2021
	335-76-2	Perfluorodecanoic acid	--	--	--	--
	307-55-1	Perfluorododecanoic acid	--	--	--	--
	375-85-9	Perfluoroheptanoic acid	--	--	--	--
	355-46-4	Perfluorohexane sulfonic acid	--	--	--	--
	307-24-4	Perfluorohexanoic acid	--	--	--	--
	375-95-1	Perfluorononanoic acid	--	--	--	--
	1763-23-1	Perfluorooctanesulfonic acid	NC	6.6E-4	mg/kg	NYSDEC, 2021
	335-67-1	Perfluorooctanoic acid	NC	8.8E-4	mg/kg	NYSDEC, 2021
	376-06-7	Perfluorotetradecanoic acid	--	--	--	--
	72629-94-8	Perfluorotridecanoic acid	--	--	--	--
	2058-94-8	Perfluoroundecanoic acid	--	--	--	--

Footnotes
[a]All RBSL are THQ=0.1 for non-carcinogens, calculated using the USEPA RSL default equation for soil.

Notes
"--" = no value is available
RBSL = risk-based screening level
RSL = regional screening level
THQ = target hazard quotient
USEPA = United States Environmental Protection Agency

References
NYSDEC. (2021). *Sampling, Analysis, and Assessment of Per- and PolyFluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs*. New York State Department of Environmental Conservation. January.
USEPA. (2021). *Regional Screening Levels (RSLs), Residential Soil*. U.S. Environmental Protection Agency. Updated in May 2021

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TABLE B2.6
Residential Ambient Air Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b]
Semi-volatiles	95-50-1	1,2-Dichlorobenzene	NC	2.1E+1	µg/m^3	USEPA, 2020a
	541-73-1	1,3-Dichlorobenzene	--	--	--	--
	106-46-7	1,4-Dichlorobenzene	C	2.6E-1	µg/m^3	USEPA, 2020a
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	5.2E+2	µg/m^3	USEPA, 2020a
	79-34-5	1,1,2,2-Tetrachloroethane	C	4.8E-2	µg/m^3	USEPA, 2020a
	79-00-5	1,1,2-Trichloroethane	NC	2.1E-2	µg/m^3	USEPA, 2020a
	75-34-3	1,1-Dichloroethane	C	1.8E+0	µg/m^3	USEPA, 2020a
	75-35-4	1,1-Dichloroethene	NC	2.1E+1	µg/m^3	USEPA, 2020a
	96-12-8	1,2-Dibromo-3-chloropropane	C	1.7E-4	µg/m^3	USEPA, 2020a
	106-93-4	1,2-Dibromoethane	C	4.7E-3	µg/m^3	USEPA, 2020a
	107-06-2	1,2-Dichloroethane	C	1.1E-1	µg/m^3	USEPA, 2020a
	78-87-5	1,2-Dichloropropane	NC	4.2E-1	µg/m^3	USEPA, 2020a
	78-93-3	2-Butanone	NC	5.2E+2	µg/m^3	USEPA, 2020a
	591-78-6	2-Hexanone	NC	3.1E+0	µg/m^3	USEPA, 2020a
	108-10-1	4-Methyl-2-pentanone	NC	3.1E+2	µg/m^3	USEPA, 2020a
	67-64-1	Acetone	NC	3.2E+3	µg/m^3	USEPA, 2020a
	71-43-2	Benzene	C	3.6E-1	µg/m^3	USEPA, 2020a
	75-27-4	Bromodichloromethane	C	7.6E-2	µg/m^3	USEPA, 2020a
	75-25-2	Bromoform	C	2.6E+0	µg/m^3	USEPA, 2020a
	74-83-9	Bromomethane	NC	5.2E-1	µg/m^3	USEPA, 2020a
	75-15-0	Carbon disulfide	NC	7.3E+1	µg/m^3	USEPA, 2020a
	56-23-5	Carbon Tetrachloride	C	4.7E-1	µg/m^3	USEPA, 2020a
	108-90-7	Chlorobenzene	NC	5.2E+0	µg/m^3	USEPA, 2020a
	75-00-3	Chloroethane	NC	1.0E+3	µg/m^3	USEPA, 2020a
	67-66-3	Chloroform	C	1.2E-1	µg/m^3	USEPA, 2020a
	74-87-3	Chloromethane	NC	9.4E+0	µg/m^3	USEPA, 2020a
	156-59-2	cis-1,2-Dichloroethene	--	--	--	--
	10061-01-5	cis-1,3-Dichloropropene	C	7.0E-1	µg/m^3	1,3-Dichloropropene (USEPA, 2020a)
	110-82-7	Cyclohexane	NC	6.3E+2	µg/m^3	USEPA, 2020a
	124-48-1	Dibromochloromethane	--	--	--	--
	75-71-8	Dichlorodifluoromethane	NC	1.0E+1	µg/m^3	USEPA, 2020a
	100-41-4	Ethylbenzene	C	1.1E+0	µg/m^3	USEPA, 2020a
	98-82-8	Isopropylbenzene	NC	4.2E+1	µg/m^3	USEPA, 2020a
	179601-23-1	m,p-Xylene	NC	1.0E+1	µg/m^3	Xylene (USEPA, 2020a; per NYSDEC & NYSDOH, 2006)
	1634-04-4	Methyl tert-butyl ether	C	1.1E+1	µg/m^3	USEPA, 2020a
	75-09-2	Methylene Chloride	NC	6.3E+1	µg/m^3	USEPA, 2020a
	95-47-6	o-Xylene	NC	1.0E+1	µg/m^3	USEPA, 2020a
	100-42-5	Styrene	NC	1.0E+2	µg/m^3	USEPA, 2020a
	127-18-4	Tetrachloroethene	NC	4.2E+0	µg/m^3	USEPA, 2020a
	108-88-3	Toluene	NC	5.2E+2	µg/m^3	USEPA, 2020a
	156-60-5	trans-1,2-Dichloroethene	NC	4.2E+0	µg/m^3	USEPA, 2020a
	10061-02-6	trans-1,3-Dichloropropene	C	7.0E-1	µg/m^3	1,3-Dichloropropene (USEPA, 2020a)
	79-01-6	Trichloroethene	NC	2.1E-1	µg/m^3	USEPA, 2020a
	75-69-4	Trichlorofluoromethane	--	--	--	--
	76-13-1	Trichlorotrifluoroethane	NC	5.2E+2	µg/m^3	USEPA, 2020a
	75-01-4	Vinyl Chloride	C	1.7E-1	µg/m^3	USEPA, 2020a

Footnotes
[a] All RBSL are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.
[b] If a RBSL was not available for the specified chemical, a RBSL for a similar chemical was identified.

Notes
"--" = no value is available
NYSDEC = New York State Department of Environmental Conservation
NYSDOH = New York State Department of Health
RBSL = risk-based screening level
THQ = target hazard quotient
USEPA = United States Environmental Protetction Agency

References
NYSDEC and NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document.* New York State Department of Environmental Conservation and New York State Department
USEPA. (2020a). *Regional Screening Levels, Ambient Air Residential*. U.S. Environmental Protection Agency.

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TABLE B2.7
Current and Future Residential Soil Vapor Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b,c]
Semi-volatiles	95-50-1	1,2-Dichlorobenzene	NC	7.0E+2	µg/m^3	USEPA, 2020b
	541-73-1	1,3-Dichlorobenzene	--	--	--	--
	106-46-7	1,4-Dichlorobenzene	C	9.0E+0	µg/m^3	USEPA, 2020b
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	2.0E+4	µg/m^3	USEPA, 2020b
	79-34-5	1,1,2,2-Tetrachloroethane	C	2.0E+0	µg/m^3	USEPA, 2020b
	79-00-5	1,1,2-Trichloroethane	NC	7.0E-1	µg/m^3	USEPA, 2020b
	75-34-3	1,1-Dichloroethane	C	6.0E+1	µg/m^3	USEPA, 2020b
	75-35-4	1,1-Dichloroethene	NC	7.0E+2	µg/m^3	USEPA, 2020b
	96-12-8	1,2-Dibromo-3-chloropropane	C	6.0E-3	µg/m^3	USEPA, 2020b
	106-93-4	1,2-Dibromoethane	C	2.0E-1	µg/m^3	USEPA, 2020b
	107-06-2	1,2-Dichloroethane	C	4.0E+0	µg/m^3	USEPA, 2020b
	78-87-5	1,2-Dichloropropane	NC	1.0E+1	µg/m^3	USEPA, 2020b
	78-93-3	2-Butanone	NC	2.0E+4	µg/m^3	USEPA, 2020b
	591-78-6	2-Hexanone	NC	1.0E+2	µg/m^3	USEPA, 2020b
	108-10-1	4-Methyl-2-pentanone	NC	1.0E+4	µg/m^3	USEPA, 2020b
	67-64-1	Acetone	NC	1.0E+5	µg/m^3	USEPA, 2020b
	71-43-2	Benzene	C	1.0E+1	µg/m^3	USEPA, 2020b
	75-27-4	Bromodichloromethane	C	3.0E+0	µg/m^3	USEPA, 2020b
	75-25-2	Bromoform	C	9.0E+1	µg/m^3	USEPA, 2020b
	74-83-9	Bromomethane	NC	2.0E+1	µg/m^3	USEPA, 2020b
	75-15-0	Carbon disulfide	NC	2.0E+3	µg/m^3	USEPA, 2020b
	56-23-5	Carbon Tetrachloride	C	2.0E+1	µg/m^3	USEPA, 2020b
	108-90-7	Chlorobenzene	NC	2.0E+2	µg/m^3	USEPA, 2020b
	75-00-3	Chloroethane	NC	3.0E+4	µg/m^3	USEPA, 2020b
	67-66-3	Chloroform	C	4.0E+0	µg/m^3	USEPA, 2020b
	74-87-3	Chloromethane	NC	3.0E+2	µg/m^3	USEPA, 2020b
	156-59-2	cis-1,2-Dichloroethene	--	--	--	--
	10061-01-5	cis-1,3-Dichloropropene	--	--	--	--
	110-82-7	Cyclohexane	NC	2.0E+4	µg/m^3	USEPA, 2020b
	124-48-1	Dibromochloromethane	--	--	--	--
	75-71-8	Dichlorodifluoromethane	NC	3.0E+2	µg/m^3	USEPA, 2020b
	100-41-4	Ethylbenzene	C	4.0E+1	µg/m^3	USEPA, 2020b
	98-82-8	Isopropylbenzene	NC	1.0E+3	µg/m^3	USEPA, 2020b
	179601-23-1	m,p-Xylene	--	--	--	--
	1634-04-4	Methyl tert-butyl ether	C	4.0E+2	µg/m^3	USEPA, 2020b
	75-09-2	Methylene Chloride	NC	2.0E+3	µg/m^3	USEPA, 2020b
	95-47-6	o-Xylene	NC	3.0E+2	µg/m^3	USEPA, 2020b
	100-42-5	Styrene	NC	3.0E+3	µg/m^3	USEPA, 2020b
	127-18-4	Tetrachloroethene	NC	1.0E+2	µg/m^3	USEPA, 2020b
	108-88-3	Toluene	NC	2.0E+4	µg/m^3	USEPA, 2020b
	156-60-5	trans-1,2-Dichloroethene	--	--	--	--
	10061-02-6	trans-1,3-Dichloropropene	--	--	--	--
	79-01-6	Trichloroethene	NC	7.0E+0	µg/m^3	USEPA, 2020b
	75-69-4	Trichlorofluoromethane	--	--	--	--
	76-13-1	Trichlorotrifluoroethane	NC	2.0E+4	µg/m^3	USEPA, 2020b
	75-01-4	Vinyl Chloride	C	6.0E+0	µg/m^3	USEPA, 2020b

Footnotes

[a] All RBSL are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.

[b] USEPA default resident vapor intrusion screening level (VISL) for sub-slab and near-source soil gas (USEPA, 2020b).

[c] If the VISL was not available, the RBSL was calculated using ambient air RSL (USEPA, 2020a) and an attentuation factor of 0.03. If the RSL was not available for the specified chemical, the RSL for a similar chemical was used.

Notes

"--" = no value is available
RBSL = risk-based screening level
RSL = regional screening level
USEPA = United States Environmental Protection Agency
VISL = vapor intrustion screening level

References

USEPA. (2020b). Vapor Intrusion Screening Levels (VISL) Calculator. U.S. Environmental Protection Agency.

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TABLE B2.8
Residential Ambient Air Vapor Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b]
Semi-volatiles	95-50-1	1,2-Dichlorobenzene	NC	2.0E+1	µg/m^3	USEPA, 2020b
	541-73-1	1,3-Dichlorobenzene	--	--	--	--
	106-46-7	1,4-Dichlorobenzene	C	3.0E-1	µg/m^3	USEPA, 2020b
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	5.0E+2	µg/m^3	USEPA, 2020b
	79-34-5	1,1,2,2-Tetrachloroethane	C	4.8E-2	µg/m^3	USEPA, 2020b
	79-00-5	1,1,2-Trichloroethane	NC	2.0E-2	µg/m^3	USEPA, 2020b
	75-34-3	1,1-Dichloroethane	C	2.0E+0	µg/m^3	USEPA, 2020b
	75-35-4	1,1-Dichloroethene	NC	2.0E+1	µg/m^3	USEPA, 2020b
	96-12-8	1,2-Dibromo-3-chloropropane	C	2.0E-4	µg/m^3	USEPA, 2020b
	106-93-4	1,2-Dibromoethane	C	5.0E-3	µg/m^3	USEPA, 2020b
	107-06-2	1,2-Dichloroethane	C	1.0E-1	µg/m^3	USEPA, 2020b
	78-87-5	1,2-Dichloropropane	NC	4.0E-1	µg/m^3	USEPA, 2020b
	78-93-3	2-Butanone	NC	5.0E+2	µg/m^3	USEPA, 2020b
	591-78-6	2-Hexanone	NC	3.0E+0	µg/m^3	USEPA, 2020b
	108-10-1	4-Methyl-2-pentanone	NC	3.0E+2	µg/m^3	USEPA, 2020b
	67-64-1	Acetone	NC	3.0E+3	µg/m^3	USEPA, 2020b
	71-43-2	Benzene	C	4.0E-1	µg/m^3	USEPA, 2020b
	75-27-4	Bromodichloromethane	C	8.0E-2	µg/m^3	USEPA, 2020b
	75-25-2	Bromoform	C	3.0E+0	µg/m^3	USEPA, 2020b
	74-83-9	Bromomethane	NC	5.0E-1	µg/m^3	USEPA, 2020b
	75-15-0	Carbon disulfide	NC	7.0E+1	µg/m^3	USEPA, 2020b
	56-23-5	Carbon Tetrachloride	C	5.0E-1	µg/m^3	USEPA, 2020b
	108-90-7	Chlorobenzene	NC	5.0E+0	µg/m^3	USEPA, 2020b
	75-00-3	Chloroethane	NC	1.0E+3	µg/m^3	USEPA, 2020b
	67-66-3	Chloroform	C	1.0E-1	µg/m^3	USEPA, 2020b
	74-87-3	Chloromethane	NC	9.0E+0	µg/m^3	USEPA, 2020b
	156-59-2	cis-1,2-Dichloroethene	--	--	--	--
	10061-01-5	cis-1,3-Dichloropropene	--	--	--	--
	110-82-7	Cyclohexane	NC	6.0E+2	µg/m^3	USEPA, 2020b
	124-48-1	Dibromochloromethane	--	--	--	--
	75-71-8	Dichlorodifluoromethane	NC	1.0E+1	µg/m^3	USEPA, 2020b
	100-41-4	Ethylbenzene	C	1.0E+0	µg/m^3	USEPA, 2020b
	98-82-8	Isopropylbenzene	NC	4.0E+1	µg/m^3	USEPA, 2020b
	179601-23-1	m,p-Xylene	--	--	--	--
	1634-04-4	Methyl tert-butyl ether	C	1.0E+1	µg/m^3	USEPA, 2020b
	75-09-2	Methylene Chloride	NC	6.0E+1	µg/m^3	USEPA, 2020b
	95-47-6	o-Xylene	NC	1.0E+1	µg/m^3	USEPA, 2020b
	100-42-5	Styrene	NC	1.0E+2	µg/m^3	USEPA, 2020b
	127-18-4	Tetrachloroethene	NC	4.0E+0	µg/m^3	USEPA, 2020b
	108-88-3	Toluene	NC	5.0E+2	µg/m^3	USEPA, 2020b
	156-60-5	trans-1,2-Dichloroethene	--	--	--	--
	10061-02-6	trans-1,3-Dichloropropene	--	--	--	--
	79-01-6	Trichloroethene	NC	2.0E-1	µg/m^3	USEPA, 2020b
	75-69-4	Trichlorofluoromethane	--	--	--	--
	76-13-1	Trichlorotrifluoroethane	NC	5.0E+2	µg/m^3	USEPA, 2020b
	75-01-4	Vinyl Chloride	C	2.0E-1	µg/m^3	USEPA, 2020b

Footnotes
[a] All RBSLs are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.
[b] USEPA default resident vapor intrusion screening level (VISL) for indoor air (USEPA, 2020b).

Notes
"--" = no value is available
RBSL = risk-based screening level
THQ = target hazard quotient
USEPA = United States Environmental Protetction Agency
VISL = vapor intrustion screening level

References
USEPA. (2020b). Vapor Intrusion Screening Levels (VISL) Calculator. U.S. Environmental Protection Agency.

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TABLE B2.9
Current and Future Residential Groundwater Vapor Intrusion Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b]
Metals	7429-90-5	Aluminum	--	--	--	USEPA, 2020b
	7440-36-0	Antimony	--	--	--	USEPA, 2020b
	7440-38-2	Arsenic	--	--	--	USEPA, 2020b
	7440-39-3	Barium	--	--	--	USEPA, 2020b
	7440-41-7	Beryllium	--	--	--	USEPA, 2020b
	7440-43-9	Cadmium	--	--	--	USEPA, 2020b
	7440-70-2	Calcium	--	--	--	--
	7440-47-3	Chromium	--	--	--	--
	7440-48-4	Cobalt	--	--	--	USEPA, 2020b
	7440-50-8	Copper	--	--	--	USEPA, 2020b
	7439-89-6	Iron	--	--	--	USEPA, 2020b
	7439-92-1	Lead	--	--	--	--
	7439-95-4	Magnesium	--	--	--	--
	7439-96-5	Manganese	--	--	--	USEPA, 2020b
	7439-97-6	Mercury	NC	8.9E-2	µg/L	USEPA, 2020b
	7440-02-0	Nickel	--	--	--	USEPA, 2020b
	7440-09-7	Potassium	--	--	--	--
	7782-49-2	Selenium	--	--	--	USEPA, 2020b
	7440-22-4	Silver	--	--	--	USEPA, 2020b
	7440-23-5	Sodium	--	--	--	--
	7440-28-0	Thallium	--	--	--	USEPA, 2020b
	7440-62-2	Vanadium	--	--	--	USEPA, 2020b
	7440-66-6	Zinc	--	--	--	USEPA, 2020b
PAHs	92-52-4	1,1'-Biphenyl	NC	3.3E+0	µg/L	USEPA, 2020b
	91-57-6	2-Methylnaphthalene	--	--	--	USEPA, 2020b
	88-74-4	2-Nitroaniline	--	--	--	USEPA, 2020b
	99-09-2	3-Nitroaniline	--	--	--	--
	100-01-6	4-Nitroaniline	--	--	--	USEPA, 2020b
	83-32-9	Acenaphthene	--	--	--	USEPA, 2020b
	208-96-8	Acenaphthylene	--	--	--	--
	120-12-7	Anthracene	--	--	--	USEPA, 2020b
	56-55-3	Benzo[a]anthracene	C	3.4E+1	µg/L	USEPA, 2020b
	50-32-8	Benzo[a]pyrene	--	--	--	USEPA, 2020b
	205-99-2	Benzo[b]fluoranthene	--	--	--	USEPA, 2020b
	191-24-2	Benzo[g,h,i]perylene	--	--	--	--
	207-08-9	Benzo[k]fluoranthene	--	--	--	USEPA, 2020b
	218-01-9	Chrysene	--	--	--	USEPA, 2020b
	53-70-3	Dibenzo[a,h]anthracene	--	--	--	USEPA, 2020b
	132-64-9	Dibenzofuran	--	--	--	USEPA, 2020b
	206-44-0	Fluoranthene	--	--	--	USEPA, 2020b
	86-73-7	Fluorene	--	--	--	USEPA, 2020b
	193-39-5	Indeno[1,2,3-cd]pyrene	--	--	--	USEPA, 2020b
	91-20-3	Naphthalene	C	4.6E+0	µg/L	USEPA, 2020b
	85-01-8	Phenanthrene	--	--	--	--
	129-00-0	Pyrene	--	--	--	USEPA, 2020b
PCBs	12674-11-2	Aroclor 1016	C	1.7E+1	µg/L	USEPA, 2020b
	11104-28-2	Aroclor 1221	C	1.7E+1	µg/L	Aroclor 1016 (USEPA,
	11141-16-5	Aroclor 1232	C	1.7E+1	µg/L	Aroclor 1016 (USEPA,
	53469-21-9	Aroclor 1242	C	1.7E+1	µg/L	Aroclor 1016 (USEPA,
	12672-29-6	Aroclor 1248	C	4.3E-1	µg/L	Aroclor 1254 (USEPA, 202
	11097-69-1	Aroclor 1254	C	4.3E-1	µg/L	USEPA, 2020c
	11096-82-5	Aroclor 1260	C	4.3E-1	µg/L	Aroclor 1254 (USEPA, 202
	37324-23-5	Aroclor 1262	--	4.3E-1	µg/L	Aroclor 1254 (USEPA, 202
	11100-14-4	Aroclor 1268	--	4.3E-1	µg/L	Aroclor 1254 (USEPA, 202
Pesticides	72-54-8	4,4'-DDD	--	--	--	USEPA, 2020b
	72-55-9	4,4'-DDE	C	1.7E+1	µg/L	USEPA, 2020b
	50-29-3	4,4'-DDT	--	--	--	USEPA, 2020b
	309-00-2	Aldrin	C	3.2E-1	µg/L	USEPA, 2020b
	319-84-6	alpha-Benzenehexachloride	--	--	--	USEPA, 2020b
	1912-24-9	Atrazine	--	--	--	USEPA, 2020b
	319-85-7	beta-Benzenehexachloride	--	--	--	USEPA, 2020b
	86-74-8	Carbazole	--	--	--	--
	5103-71-9	cis-Chlordane	--	--	--	--
	319-86-8	delta-Benzenehexachloride	--	--	--	--
	60-57-1	Dieldrin	--	--	--	USEPA, 2020b
	959-98-8	Endosulfan I	--	--	--	--
	33213-65-9	Endosulfan II	--	--	--	--
	1031-07-8	Endosulfan sulfate	--	--	--	USEPA, 2020b
	72-20-8	Endrin	--	--	--	USEPA, 2020b
	7421-93-4	Endrin aldehyde	--	--	--	--
	53494-70-5	Endrin ketone	--	--	--	--
	58-89-9	gamma-Benzenehexachloride	--	--	--	USEPA, 2020b
	76-44-8	Heptachlor	C	1.8E-1	µg/L	USEPA, 2020b
	1024-57-3	Heptachlor epoxide	C	1.3E+0	µg/L	USEPA, 2020b
	72-43-5	Methoxychlor	--	--	--	USEPA, 2020b
	8001-35-2	Toxaphene	--	--	--	USEPA, 2020b
	5103-74-2	trans-Chlordane	--	--	--	--

TABLE B2.9
Current and Future Residential Groundwater Vapor Intrusion Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b]
Phenols	58-90-2	2,3,4,6-Tetrachlorophenol	--	--	--	USEPA, 2020b
	95-95-4	2,4,5-Trichlorophenol	--	--	--	USEPA, 2020b
	88-06-2	2,4,6-Trichlorophenol	--	--	--	USEPA, 2020b
	120-83-2	2,4-Dichlorophenol	--	--	--	USEPA, 2020b
	95-57-8	2-Chlorophenol	--	--	--	USEPA, 2020b
	87-86-5	Pentachlorophenol	--	--	--	USEPA, 2020b
Semi-volatiles	120-82-1	1,2,4-Trichlorobenzene	NC	3.6E+0	µg/L	USEPA, 2020b
	95-50-1	1,2-Dichlorobenzene	NC	2.7E+2	µg/L	USEPA, 2020b
	541-73-1	1,3-Dichlorobenzene	--	--	--	--
	106-46-7	1,4-Dichlorobenzene	C	2.6E+0	µg/L	USEPA, 2020b
	105-67-9	2,4-Dimethylphenol	--	--	--	USEPA, 2020b
	51-28-5	2,4-Dinitrophenol	--	--	--	USEPA, 2020b
	121-14-2	2,4-Dinitrotoluene	--	--	--	USEPA, 2020b
	606-20-2	2,6-Dinitrotoluene	--	--	--	USEPA, 2020b
	91-58-7	2-Chloronaphthalene	--	--	--	USEPA, 2020b
	95-48-7	2-Methylphenol	--	--	--	USEPA, 2020b
	88-75-5	2-Nitrophenol	--	--	--	--
	91-94-1	3,3'-Dichlorobenzidine	--	--	--	USEPA, 2020b
	534-52-1	4,6-Dinitro-2-methylphenol	--	--	--	USEPA, 2020b
	101-55-3	4-Bromophenyl-phenylether	--	--	--	--
	59-50-7	4-Chloro-3-methylphenol	--	--	--	USEPA, 2020b
	106-47-8	4-Chloroaniline	--	--	--	USEPA, 2020b
	7005-72-3	4-Chlorophenyl-phenyl ether	--	--	--	--
	106-44-5	4-Methylphenol	--	--	--	USEPA, 2020b
	100-02-7	4-Nitrophenol	--	--	--	--
	98-86-2	Acetophenone	--	--	--	USEPA, 2020b
	100-52-7	Benzaldehyde	--	--	--	USEPA, 2020b
	85-68-7	Benzyl n-butyl phthalate	--	--	--	USEPA, 2020b
	111-91-1	bis(2-Chloroethoxy)methane	--	--	--	USEPA, 2020b
	111-44-4	Bis(2-chloroethyl)ether	C	1.2E+1	µg/L	USEPA, 2020b
	117-81-7	bis(2-Ethylhexyl)phthalate	--	--	--	USEPA, 2020b
	105-60-2	Caprolactam	--	--	--	USEPA, 2020b
	84-66-2	Diethyl phthalate	--	--	--	USEPA, 2020b
	131-11-3	Dimethyl phthalate	--	--	--	--
	84-74-2	Di-n-butyl phthalate	--	--	--	USEPA, 2020b
	117-84-0	Di-n-octylphthalate	--	--	--	USEPA, 2020b
	118-74-1	Hexachlorobenzene	C	8.8E-2	µg/L	USEPA, 2020b
	87-68-3	Hexachlorobutadiene	C	3.0E-1	µg/L	USEPA, 2020b
	77-47-4	Hexachlorocyclopentadiene	NC	1.9E-2	µg/L	USEPA, 2020b
	67-72-1	Hexachloroethane	C	1.6E+0	µg/L	USEPA, 2020b
	78-59-1	Isophorone	--	--	--	USEPA, 2020b
	98-95-3	Nitrobenzene	C	7.2E+1	µg/L	USEPA, 2020b
	621-64-7	N-Nitrosodi-n-propylamine	--	--	--	USEPA, 2020b
	86-30-6	N-Nitrosodiphenylamine	--	--	--	USEPA, 2020b
	108-95-2	Phenol	--	--	--	USEPA, 2020b

TABLE B2.9
Current and Future Residential Groundwater Vapor Intrusion Risk-Based Screening Levels for Screening Level HHRA
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Chemical Class	CASRN	Analyte Name	Cancer/ Noncancer	Screening Level	Units	Source[a,b]
Volatiles	71-55-6	1,1,1-Trichloroethane	NC	7.4E+2	µg/L	USEPA, 2020b
	79-34-5	1,1,2,2-Tetrachloroethane	C	3.2E+0	µg/L	USEPA, 2020b
	79-00-5	1,1,2-Trichloroethane	NC	6.2E-1	µg/L	USEPA, 2020b
	75-34-3	1,1-Dichloroethane	C	7.6E+0	µg/L	USEPA, 2020b
	75-35-4	1,1-Dichloroethene	NC	2.0E+1	µg/L	USEPA, 2020b
	87-61-6	1,2,3-Trichlorobenzene	--	--	--	USEPA, 2020b
	95-94-3	1,2,4,5-Tetrachlorobenzene	--	--	--	USEPA, 2020b
	96-12-8	1,2-Dibromo-3-chloropropane	C	2.8E-2	µg/L	USEPA, 2020b
	106-93-4	1,2-Dibromoethane	C	1.8E-1	µg/L	USEPA, 2020b
	107-06-2	1,2-Dichloroethane	C	2.2E+0	µg/L	USEPA, 2020b
	78-87-5	1,2-Dichloropropane	NC	3.6E+0	µg/L	USEPA, 2020b
	123-91-1	1,4-Dioxane	C	2.9E+3	µg/L	USEPA, 2020b
	78-93-3	2-Butanone	NC	2.2E+5	µg/L	USEPA, 2020b
	591-78-6	2-Hexanone	NC	8.2E+2	µg/L	USEPA, 2020b
	108-10-1	4-Methyl-2-pentanone	NC	5.6E+4	µg/L	USEPA, 2020b
	67-64-1	Acetone	NC	2.3E+6	µg/L	USEPA, 2020b
	71-43-2	Benzene	C	1.6E+0	µg/L	USEPA, 2020b
	39638-32-9	Bis(2-chloroisopropyl) ether	--	--	--	--
	74-97-5	Bromochloromethane	NC	7.0E+1	µg/L	USEPA, 2020b
	75-27-4	Bromodichloromethane	C	8.8E-1	µg/L	USEPA, 2020b
	75-25-2	Bromoform	C	1.2E+2	µg/L	USEPA, 2020b
	74-83-9	Bromomethane	NC	1.7E+0	µg/L	USEPA, 2020b
	75-15-0	Carbon disulfide	NC	1.2E+2	µg/L	USEPA, 2020b
	56-23-5	Carbon Tetrachloride	C	4.2E-1	µg/L	USEPA, 2020b
	108-90-7	Chlorobenzene	NC	4.1E+1	µg/L	USEPA, 2020b
	75-00-3	Chloroethane	NC	2.3E+3	µg/L	USEPA, 2020b
	67-66-3	Chloroform	C	8.1E-1	µg/L	USEPA, 2020b
	74-87-3	Chloromethane	NC	2.6E+1	µg/L	USEPA, 2020b
	156-59-2	cis-1,2-Dichloroethene	--	--	--	USEPA, 2020b
	10061-01-5	cis-1,3-Dichloropropene	--	--	--	--
	110-82-7	Cyclohexane	NC	1.0E+2	µg/L	USEPA, 2020b
	124-48-1	Dibromochloromethane	--	--	--	USEPA, 2020b
	75-71-8	Dichlorodifluoromethane	NC	7.4E-1	µg/L	USEPA, 2020b
	100-41-4	Ethylbenzene	C	3.5E+0	µg/L	USEPA, 2020b
	98-82-8	Isopropylbenzene	NC	8.9E+1	µg/L	USEPA, 2020b
	179601-23-1	m,p-Xylene	--	--	--	--
	79-20-9	Methyl acetate	--	--	--	USEPA, 2020b
	1634-04-4	Methyl tert-butyl ether	C	4.5E+2	µg/L	USEPA, 2020b
	108-87-2	Methylcyclohexane	--	--	--	--
	75-09-2	Methylene Chloride	NC	4.7E+2	µg/L	USEPA, 2020b
	95-47-6	o-Xylene	NC	4.9E+1	µg/L	USEPA, 2020b
	100-42-5	Styrene	NC	9.3E+2	µg/L	USEPA, 2020b
	127-18-4	Tetrachloroethene	NC	5.8E+0	µg/L	USEPA, 2020b
	108-88-3	Toluene	NC	1.9E+3	µg/L	USEPA, 2020b
	156-60-5	trans-1,2-Dichloroethene	NC	1.1E+1	µg/L	USEPA, 2020b
	10061-02-6	trans-1,3-Dichloropropene	--	--	--	--
	79-01-6	Trichloroethene	NC	5.2E-1	µg/L	USEPA, 2020b
	75-69-4	Trichlorofluoromethane	--	--	--	USEPA, 2020b
	76-13-1	Trichlorotrifluoroethane	NC	2.4E+1	µg/L	USEPA, 2020b
	75-01-4	Vinyl Chloride	C	1.5E-1	µg/L	USEPA, 2020b
	1330-20-7	Xylenes	NC	3.9E+1	µg/L	USEPA, 2020b

Footnotes
[a] All RBSL are either THQ=0.1 for non-carcinogens or 10^{-6} risk level for carcinogens.
[b] USEPA default resident vapor intrusion screening level (VISL) for groundwater (USEPA, 2020b).

Notes
"--" = no value is available
RBSL = risk-based screening level
THQ = target hazard quotient
USEPA = United States Environmental Protection Agency
VISL = vapor intrustion screening level

References
USEPA. (2020b). Vapor Intrusion Screening Levels (VISL) Calculator. U.S. Environmental Protection Agency.

GSI ENVIRONMENTAL

TABLE B3

Derivation of Benzo(a)Pyrene Toxic Equivalents for Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs)

McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

CASRN	cPAH Analyte Name	Toxic Equivalency Factor (1)
56-55-3	Benzo[a]anthracene	0.1
50-32-8	Benzo[a]pyrene	1
205-99-2	Benzo[b]fluoranthene	0.1
207-08-9	Benzo[k]fluoranthene	0.1
218-01-9	Chrysene	0.001
53-70-3	Dibenzo[a,h]anthracene	1
193-39-5	Indeno[1,2,3-cd]pyrene	0.1

cPAH = carcinogenic polycyclic aromatic hydrocarbons

Footnotes

(1) Toxic equivalents are based on the relative potency of each compound, relative to benzo(a)pyrene. (USEPA, 1993).

USEPA. (1993). *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons. EPA/600/R-93/069*. Office of Research and Development, Washington DC.

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TABLE B4.1
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Surface and Subsurface Soil: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Soil
Exposure Medium:	Surface and Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Younger Child (0 - <6 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_s(mg/kg-day) = \frac{C_s \times CF_1 \times IR_s \times RBA_s \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment		10^{-6} kg/1 mg	1E-06	--	1E-06	--
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	200	USEPA 2017. Table 5-1	80	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	350	USEPA 2014	155	Equivalent EF based on NYSDEC & NYSDOH 2006 child resident	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment		10^{-6} kg/1 mg	1E-06	--	1E-06	--
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	200	USEPA 2017. Table 5-1	60	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	350	USEPA 2014	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult resident	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment		10^{-6} kg/1 mg	1E-06	--	1E-06	--
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	100	USEPA 2017. Table 5-1	50	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	350	USEPA 2014	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult resident	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	2	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Food Ingestion (plants)	Residents	Younger Child (0 - <6 years)	C_{food}	Concentration of COPC in food	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_{food}(mg/kg-day) = \frac{C_{food} \times (1-Loss) \times IR_{food} \times ABS_{GI,food} \times FI_{food} \times ED}{AT \times BW}$
			Loss	Fraction of chemical-specific reduction due to preparation and cooking	unitless	0	Per USEPA request	Chemical-specific	--	
			IR_{food}	Average daily food ingestion rate	g/kg-day	Food product specific	--	Food product specific	--	
			$ABS_{GI,food}$	Fraction absorbed from food in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			FI_{food}	Fraction of total food intake that is site-related	unitless	1	Professional judgement	1	Professional judgement	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_{food}	Concentration of COPC in food	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			Loss	Fraction of chemical-specific reduction due to preparation and cooking	unitless	0	Per USEPA request	Chemical-specific	--	
			IR_{food}	Average daily food ingestion rate	g/kg-day	Food product specific	--	Food product specific	--	
			$ABS_{GI,food}$	Fraction absorbed from food in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			FI_{food}	Fraction of total food intake that is site-related	unitless	1	Professional judgement	1	Professional judgement	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_{food}	Concentration of COPC in food	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			Loss	Fraction of chemical-specific reduction due to preparation and cooking	unitless	0	Per USEPA request	Chemical-specific	--	
			IR_{food}	Average daily food ingestion rate	g/kg-day	Food product specific	--	Food product specific	--	
			$ABS_{GI,food}$	Fraction absorbed from food in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			FI_{food}	Fraction of total food intake that is site-related	unitless	1	Professional judgement	1	Professional judgement	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	2	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

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Surface and Subsurface Soil: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Soil
Exposure Medium:	Surface and Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Residents	Younger Child (0 - <6 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_d(mg/kg-day) = \frac{C_s \times CF_1 \times EV_s \times SA_s \times AF_s \times ABS_d \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	2,373	USEPA 2014. Based on USEPA 2011	1,870	NYSDEC & NYSDOH 2006	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	USEPA 2004. Exhibit 3-5	0.04	USEPA 2004. Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004. Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	350	USEPA 2014	155	Equivalent EF based on NYSDEC & NYSDOH 2006 child resident	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	4,540	USEPA 2011. Table 7-2 (Males and females forearms, hands, feet, lower legs)	4,530	Professional judgement. NYSDEC & NYSDOH 2006 for adolescent industrial	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	USEPA 2004. Exhibit 3-5	0.04	USEPA 2004. Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	350	USEPA 2014	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult resident	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	6,032	USEPA 2014. Based on USEPA 2011	4,850	NYSDEC & NYSDOH 2006	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.07	USEPA 2004. Exhibit 3-5	0.01	USEPA 2004. Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	350	USEPA 2014	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult resident	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	2	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Ingestion	Commercial/ Industrial Workers	Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_s(mg/kg-day) = \frac{C_s \times CF_1 \times IR_s \times RBA_s \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	50	USEPA 2014. Based on USEPA 1991	50	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	250	USEPA 2014. Based on USEPA 1991. For indoor worker	124	Equivalent EF based on NYSDEC & NYSDOH 2006 adult commercial	
			ED	Exposure duration	years	25	USEPA 2014	6.6	USEPA 2011. Table 16-103. Median occupational tenure	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	9,125	USEPA 1989	2,409	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Dermal	Commercial/ Industrial Workers	Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_d(mg/kg-day) = \frac{C_s \times CF_1 \times EV_s \times SA_s \times AF_s \times ABS_d \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	3,527	USEPA 2014. Based on USEPA 2011	2,480	NYSDEC & NYSDOH 2006	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	USEPA 2004 Exhibit 3-5	0.07	USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	250	USEPA 2014. Based on USEPA 1991. For indoor worker	124	Equivalent EF based on NYSDEC & NYSDOH 2006 adult commercial	
			ED	Exposure duration	years	25	USEPA 2014	6.6	USEPA 2011. Table 16-103. Median occupational tenure	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	9,125	USEPA 1989	2,409	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Ingestion	Construction Workers	Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_s(mg/kg-day) = \frac{C_s \times CF_1 \times IR_s \times RBA_s \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	330	USEPA 2002. Exhibit 1-2	330	USEPA 2002. Exhibit 1-2	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	225	USEPA 2014. Based on USEPA 2002. For outdoor worker	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult industrial	
			ED	Exposure duration	years	1	USEPA 2002. Exhibit 5-1	1	USEPA 2002. Exhibit 5-1	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	365	USEPA 1989	365	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

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Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Soil
Exposure Medium:	Surface and Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Construction Workers	Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_d(mg/kg-day) = \frac{C_s \times CF_1 \times EV_s \times SA_s \times AF_s \times ABS_d \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	3,527	USEPA 2014. Based on USEPA 2011	2,480	Professional judgement. NYSDEC & NYSDOH 2006 for adult commercial and industrial	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.3	USEPA 2004 Exhibit 3-3	0.1	USEPA 2004 Exhibit 3-3	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	225	USEPA 2014. Based on USEPA 2002. For outdoor worker	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult industrial	
			ED	Exposure duration	years	1	USEPA 2002. Exhibit 5-1	1	USEPA 2002. Exhibit 5-1	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	365	USEPA 1989	365	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Inhalation (dust)	Construction Workers	Adult (16+)	C_s	Constituent concentration in surface soil	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$EC_{air}(\mu g/m^3) = \frac{C_{air} \times CF_3 \times ET \times EF \times ED}{AT}$ **For metals, pesticides, SVOCs, and PFAS** $C_{air}\ (\mu g/m^3) = \frac{C_s \times CF_6}{PEF}$ **For VOCs** $C_{air}\ (\mu g/m^3) = \frac{C_s \times CF_6}{V_f}$
			CF_6	Mass conversion factor for soil or sediment	1000 µg/1 mg	1,000	--	1,000	--	
			PEF	Particulate Emission Factor	m^3/kg	1.36E+09	USEPA 2002	1.36E+09	USEPA 2002	
			VF	Volatilization Factor	m^3/kg	Chemical-specific	USEPA 2002. Calculated	Chemical-specific	USEPA 2002. Calculated	
			C_{air}	Chemical concentration in air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			ET	Exposure time spent in impacted environment	hours/day	8	USEPA 2014. Based on work day	8	USEPA 2014. Based on work day	
			$EF_{outdoor}$	Exposure frequency	days/year	225	USEPA 2014. Based on USEPA 2002. For outdoor worker	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult industrial	
			ED	Exposure duration	years	1	USEPA 2002. Exhibit 5-1	1	USEPA 2002. Exhibit 5-1	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	365	USEPA 1989	365	USEPA 1989	
Ingestion	Trespassers/ Visitors	Older Child (6 - <16 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_s(mg/kg-day) = \frac{C_s \times CF_1 \times IR_s \times RBA_s \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	100	Professional judgement. USEPA 2014. Outdoor worker	60	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	31	Equivalent EF based on NYSDEC & NYSDOH 2006 adolescent trespasser	
			ED	Exposure duration	years	10	Professional judgement. Based on Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	100	Professional judgement. USEPA 2014. Outdoor worker	50	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	16	Professional judgement. Based on Resident ED. USEPA 2014	8	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	5,840	USEPA 1989	2,920	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Dermal	Trespassers/ Visitors	Older Child (6 - <16 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_d(mg/kg-day) = \frac{C_s \times CF_1 \times EV_s \times SA_s \times AF_s \times ABS_d \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	4,540	USEPA 2011. Table 7-2 (Males and females forearms, hands, feet, lower legs)	4,530	Professional judgement. NYSDEC & NYSDOH 2006 for adolescent industrial	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	0.04	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	31	Equivalent EF based on NYSDEC & NYSDOH 2006 adolescent trespasser	
			ED	Exposure duration	years	10	Professional judgement. Based on Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	6,032	USEPA 2014. Based on USEPA 2011. Table 7-2	4,850	Professional judgement. NYSDEC & NYSDOH 2006 for adult resident	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.07	Professional judgment. Based on adult resident value. USEPA 2004 Exhibit 3-5	0.01	Professional judgment. Based on adult resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	16	Professional judgement. Based on Resident ED. USEPA 2014	8	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	5,840	USEPA 1989	2,920	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

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TABLE B4.1
Values Used for Daily Intake Calculations
Surface and Subsurface Soil: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Soil
Exposure Medium:	Surface and Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreators	Younger Child (0 - <6 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_s(mg/kg-day) = \frac{C_s \times CF_1 \times IR_s \times RBA_s \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	100	Professional judgement. USEPA 2014. Outdoor worker	80	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	6	Professional judgement. Based on USEPA 2014 Resident ED	6	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	100	Professional judgement. USEPA 2014. Outdoor worker	60	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			IR_s	Average daily ingestion rate of soil or sediment	mg/day	100	Professional judgement. USEPA 2014. Outdoor worker	50	USEPA 2017. Table 5-1	
			RBA_s	Bioavailability from soil or sediment relative to bioavailability from water	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on USEPA 2014 Resident ED	2	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

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TABLE B4.1
Values Used for Daily Intake Calculations
Surface and Subsurface Soil: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Soil
Exposure Medium:	Surface and Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreators	Younger Child (0 - <6 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_d(mg/kg-day) = \frac{C_s \times CF_1 \times EV_s \times SA_s \times AF_s \times ABS_d \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	2,373	Professional judgement. USEPA 2014. Child resident	1,870	Professional judgement. NYSDEC & NYSDOH 2006 for child resident	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	0.04	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	6	Professional judgement. Based on USEPA 2014 Resident ED	6	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	4,540	USEPA 2011. Table 7-2 (Males and females forearms, hands, feet, lower legs)	4,530	Professional judgement. NYSDEC & NYSDOH 2006 for adolescent industrial	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	0.04	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	6,032	Professional judgement. USEPA 2014. Adult resident	4,850	Professional judgement. NYSDEC & NYSDOH 2006 for adult resident	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.07	Professional judgment. Based on adult resident value. USEPA 2004 Exhibit 3-5	0.01	Professional judgment. Based on adult resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on USEPA 2014 Resident ED	2	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

References

NYSDEC, & NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document*. New York State Department of Environmental Conservation and New York State Department of Health. https://www.dec.ny.gov/chemical/34189.html

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A) EPA/540/I-89/002*. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf

USEPA. (2002). *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. Office of Solid Waste and Emergency Response. OSWER 9355.4-24*. U.S. Environmental Protection Agency, Solid Waste and Emergency Response.

USEPA. (2004). *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual. Part E, Supplemental Guidance for Dermal Risk Assessment. Final*. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/part_e_final_revision_10-03-07.pdf

USEPA. (2011). *Exposure Factors Handbook: 2011 Edition*. U.S. Environmental Protection Agency Office of Research and Development.

USEPA. (2014). *Memorandum: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.* U.S. Environmental Protection Agency.

USEPA. (2017). *Exposure Factors Handbook: 2017 Update to Chapter 5: Soil and Dust Ingestion*. U.S. Environmental Protection Agency Office of Research and Development.

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TABLE B4.2
Values Used for Daily Intake Calculations
Residential Tap Water: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Groundwater
Exposure Medium:	Residential Tap Water

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Younger Child (0 - <6 years)	C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_w(mg/kg-day) = \frac{C_w \times IR_w \times ABS_{GI,water} \times EF \times ED}{AT \times BW}$
			IR_w	Average daily ingestion rate of groundwater or surface water	L/day	0.78	USEPA 2014	0.36	USEPA 2019. Table 3-1. Mean consumers-only	
			$ABS_{GI,\ water}$	Fraction absorbed from water in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			IR_w	Average daily ingestion rate of groundwater or surface water	L/day	1.5	USEPA 2019. Table 3-1. 95th percentile consumers-only	0.51	USEPA 2019. Table 3-1. Mean consumers-only	
			$ABS_{GI,\ water}$	Fraction absorbed from water in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			IR_w	Average daily ingestion rate of groundwater or surface water	L/day	2.5	USEPA 2014	1.3	USEPA 2019. Table 3-1. Mean consumers-only	
			$ABS_{GI,\ water}$	Fraction absorbed from water in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	2	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

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TABLE B4.2
Values Used for Daily Intake Calculations
Residential Tap Water: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Groundwater
Exposure Medium:	Residential Tap Water

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Residents	Younger Child (0 - <6 years)	Ev_w	Average daily event frequency for groundwater or surface water	events/day	1	Professional judgement	1	Professional judgement	$ADD_d\,(mg/kg-day) = \frac{DA_{event} \times EV_w \times SA_w \times EF \times ED}{AT \times BW}$
			SA_w	Skin surface area available for contact with groundwater or surface water	cm^2	6,378	USEPA 2014. Based on USEPA 2011, Table 7-10	6,365	USEPA 2011. Table 7-9. Weighted average of 50th percentile	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			K_p	Permeability coefficient	cm/hour	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			t_{event}	Water dermal event duration	hours/event	0.54	USEPA 2014. Based on USEPA 2011, Table 16-28	0.30	USEPA 2011. Table 16-1. Mean showering/bathing per day	**For Inorganics**
			t*	Time to reach steady-state	hours	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	$DA_{event}(mg/cm^2-event) = C_w \times K_p \times CF_2 \times t_{event}$
			FA	Fraction absorbed	unitless	Chemical-specific	USEPA 2004	Chemical-specific	USEPA 2004	
			tau_{event}	Lag time per event	hours/event	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			B	Ratio of permeability coefficients	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			MW	Molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			K_{ow}	Octanol-water partition coefficient	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	**For Organics**
		Older Child (6 - <16 years)	Ev_w	Average daily event frequency for groundwater or surface water	events/day	1	Professional judgement	1	Professional judgement	$If\ t_{event} \le t^*\ then:\ DA_{event} = 2\,FA \times K_p \times C_w \times CF_2 \times \sqrt{\frac{6\,tau_{event} \times t_{event}}{\pi}}$
			SA_w	Skin surface area available for contact with groundwater or surface water	cm^2	16,500	USEPA 2011. Table 7-9. Weighted average of 90th percentile	13,350	USEPA 2011. Table 7-9. Weighted average of 50th percentile	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	$If\ t_{event} > t^*\ then:\ DA_{event} = FA \times K_p \times C_w \times CF_2 \times \left[\frac{t_{event}}{1+B} + 2\,tau_{event} \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right]$
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	$tau_{event}(hour/event) = 0.105 \times 10^{(0.0056 \times MW)}$
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	$log\,K_p(unitless) = -2.80 + 0.66\,log\,K_{ow} - 0.0056\,MW$
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			K_p	Permeability coefficient	cm/hour	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	$B = K_p \times \frac{\sqrt{MW}}{2.6}$
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			t_{event}	Water dermal event duration	hours/event	0.71	USEPA 2014. Adult dermal event duration	0.30	USEPA 2011. Table 16-1. Mean showering/bathing per day	$If\ B \le 0.6, then\ t^* = 2.4\,tau_{event}$
			t*	Time to reach steady-state	hours	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			FA	Fraction absorbed	unitless	Chemical-specific	USEPA 2004	Chemical-specific	USEPA 2004	$If\ B > 0.6, then\ t^* = 6\,tau_{event}\left(b - \sqrt{b^2 - c^2}\right)$
			tau_{event}	Lag time per event	hours/event	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			B	Ratio of permeability coefficients	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	$b = \frac{2\,(1+B)^2}{\pi} - c$
			MW	Molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			K_{ow}	Octanol-water partition coefficient	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	$c = \frac{1+3B+3B^2}{3(1+B)}$
		Adult (16+)	Ev_w	Average daily event frequency for groundwater or surface water	events/day	1	Professional judgement	1	Professional judgement	
			SA_w	Skin surface area available for contact with groundwater or surface water	cm^2	20,900	USEPA 2014. Based on USEPA 2011. Table 7-10	19,661	USEPA 2011. Table 7-9. Weighted average of 50th percentile	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	2	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			K_p	Permeability coefficient	cm/hour	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			t_{event}	Water dermal event duration	hours/event	0.71	USEPA 2014. Based on USEPA 2011, Table 16-30 and 16-31	0.29	USEPA 2011. Table 16-1. Mean showering/bathing per day	
			t*	Time to reach steady-state	hours	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			FA	Fraction absorbed	unitless	Chemical-specific	USEPA 2004	Chemical-specific	USEPA 2004	
			tau_{event}	Lag time per event	hours/event	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			B	Ratio of permeability coefficients	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			MW	Molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			K_{ow}	Octanol-water partition coefficient	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	

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TABLE B4.2
Values Used for Daily Intake Calculations
Residential Tap Water: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Groundwater
Exposure Medium:	Residential Tap Water

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Inhalation (shower)	Residents	Younger Child (0 - <6 years)	C_{air}	Chemical concentration in air	µg/m^3	Chemical-specific	Site-specific. Calculated	Chemical-specific	Site-specific. Calculated	$EC_{air}(\mu g/m^3) = \frac{C_{air} \times EF \times ED \times ET \times CF_3}{AT}$
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	1.25	Sum of time in shower and time in room after shower	0.63	Sum of time in shower and time in room after shower	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			$C_{air-max}$	Maximum concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$C_{air}(\mu g/m^3) = \frac{\frac{C_{air-max}}{2} \times t_{event1} + C_{air-max} \times t_{event2}}{t_{event1} + t_{event2}}$
			t_{event1}	Time in shower (hours)	hour/event	0.54	USEPA 2014. Based on USEPA 2011, Table 16-28	0.30	USEPA 2011. Table 16-1. Mean showering/bathing per day	
			t_{event2}	Time in room after shower (hours)	hour/event	0.71	USEPA 2011. Table 16-35. 90th percentile	0.33	USEPA 2011. Table 16-35. 50th percentile	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$C_{air-max}(\mu g/m^3) = \frac{C_w \times f_i \times F_w \times t_{event1}}{V_a}$
			F_W	Shower water flow rate	L/hour	772	USEPA 1997. Table 17-17	772	USEPA 1997. Table 17-17	
			V_a	Bathroom air volume	m^3	16	Schaum et al. 1994	16	Schaum et al. 1994	
			f_i	fraction volatilized for radon	unitless	0.63	Andelman 1990	0.63	Andelman 1990	$f_i(unitless) = f_j \times \frac{(2.5/D_w^{0.67} + R \times T/D_a^{0.67} \times H)_j}{(2.5/D_w^{0.67} + R \times T/D_a^{0.67} \times H)_i}$
			D_w	diffusivity in water	m^2/second	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			D_A	diffusivity in air	m^2/second	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			R	gas constant	atm-m^3/mol-K	8.2E-05	Schaum et al. 1994	8.2E-05	Schaum et al. 1994	
			T	temperature	K	305	Sanders 2002	305	Sanders 2002	
			H	chemical-specific henry's law constant	atm m^3/mol	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
		Older Child (6 - <16 years)	C_{air}	Chemical concentration in air	µg/m^3	Chemical-specific	Site-specific. Calculated	Chemical-specific	Site-specific. Calculated	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	1.21	Sum of time in shower and time in room after shower	0.60	Sum of time in shower and time in room after shower	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			$C_{air-max}$	Maximum concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			t_{event1}	Time in shower (hours)	hour/event	0.71	USEPA 2014. Adult dermal event duration	0.30	USEPA 2011. Table 16-1. Mean showering/bathing per day	
			t_{event2}	Time in room after shower (hours)	hour/event	0.50	USEPA 2011. Table 16-35. 90th percentile	0.30	USEPA 2011. Table 16-35. 50th percentile	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			F_W	Shower water flow rate	L/hour	772	USEPA 1997. Table 17-17	772	USEPA 1997. Table 17-17	
			V_a	Bathroom air volume	m^3	16	Schaum et al. 1994	16	Schaum et al. 1994	
			f_i	fraction volatilized for radon	unitless	0.63	Andelman 1990	0.63	Andelman 1990	
			D_w	diffusivity in water	m^2/second	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			D_A	diffusivity in air	m^2/second	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			R	gas constant	atm-m^3/mol-K	8.2E-05	Schaum et al. 1994	8.2E-05	Schaum et al. 1994	
			T	temperature	K	305	Sanders 2002	305	Sanders 2002	
			H	chemical-specific henry's law constant	atm m^3/mol	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
		Adult (16+)	C_{air}	Chemical concentration in air	µg/m^3	Chemical-specific	Site-specific. Calculated	Chemical-specific	Site-specific. Calculated	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	1.21	Sum of time in shower and time in room after shower	0.53	Sum of time in shower and time in room after shower	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			$C_{air-max}$	Maximum concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			t_{event1}	Time in shower (hours)	hour/event	0.71	USEPA 2014. Based on USEPA 2011, Table 16-30 and 16-31	0.29	USEPA 2011. Table 16-1. Mean showering/bathing per day	
			t_{event2}	Time in room after shower (hours)	hour/event	0.50	USEPA 2011. Table 16-35. 90th percentile	0.24	USEPA 2011. Table 16-35. 50th percentile	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			F_W	Shower water flow rate	L/hour	772	USEPA 1997. Table 17-17	772	USEPA 1997. Table 17-17	
			V_a	Bathroom air volume	m^3	16	Schaum et al. 1994	16	Schaum et al. 1994	
			f_i	fraction volatilized for radon	unitless	0.63	Andelman 1990	0.63	Andelman 1990	
			D_w	diffusivity in water	m^2/second	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			D_A	diffusivity in air	m^2/second	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			R	gas constant	atm m^3/mol-K	8.2E-05	Schaum et al. 1994	8.2E-05	Schaum et al. 1994	
			T	temperature	K	305	Sanders 2002	305	Sanders 2002	
			H	chemical-specific henry's law constant	atm m^3/mol	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
		Younger Child (0 - <6 years)	C_{air}	Chemical concentration in air	µg/m^3	Chemical-specific	Site-specific. Calculated	Chemical-specific	Site-specific. Calculated	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	22.75	24 hours minus corresponding time in shower	23.37	24 hours minus corresponding time in shower	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			C_W	Concentration of COPC in groundwater or surface water	µg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			WHF	water flow rate in whole house	L/day	342	Based on DOE 2000. Adjusts 890 L/day by single adult RME shower volume (548 L)	666	Based on DOE 2000. Adjusts 890 L/day by single adult CTE shower volume (224 L)	
			f_i	fraction volatilized	unitless	Chemical-specific	Calculated using physico-chemical parameters	Chemical-specific	Calculated using physico-chemical parameters	
			HV	house volume	m^3	450	DOE 2000	450	DOE 2000	
			ER	exchange rate	changes/day	10	DOE 2000	10	DOE 2000	

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TABLE B4.2
Values Used for Daily Intake Calculations
Residential Tap Water: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Groundwater
Exposure Medium:	Residential Tap Water

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Inhalation (household water use)	Residents		MC	mixing coefficient	unitless	0.5	DOE 2000	0.5	DOE 2000	$EC_{air}(\mu g/m^3) = \frac{C_{air} \times EF \times ED \times ET \times CF_3}{AT}$
		Older Child (6 - <16 years)	C_{air}	Chemical concentration in air	µg/m^3	Chemical-specific	Site-specific. Calculated	Chemical-specific	Site-specific. Calculated	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	22.79	24 hours minus corresponding time in shower	23.40	24 hours minus corresponding time in shower	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	$C_{air}(\mu g/m^3) = \frac{C_w \times WHF \times f_i}{HV \times ER \times MC}$
			C_W	Concentration of COPC in groundwater or surface water	µg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			WHF	water flow rate in whole house	L/day	342	Based on DOE 2000. Adjusts 890 L/day by single adult RME shower volume (548 L)	666	Based on DOE 2000. Adjusts 890 L/day by single adult CTE shower volume (224 L)	
			f_i	fraction volatilized	unitless	Chemical-specific	Calculated using physico-chemical parameters	Chemical-specific	Calculated using physico-chemical parameters	
			HV	house volume	m^3	450	DOE 2000	450	DOE 2000	
			ER	exchange rate	changes/day	10	DOE 2000	10	DOE 2000	
			MC	mixing coefficient	unitless	0.5	DOE 2000	0.5	DOE 2000	
		Adult (16+)	C_{air}	Chemical concentration in air	µg/m^3	Chemical-specific	Site-specific. Calculated	Chemical-specific	Site-specific. Calculated	
			EF_{indoor}	Exposure frequency	days/year	350	USEPA 2014	350	USEPA 2014	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	22.79	24 hours minus corresponding time in shower	23.47	24 hours minus corresponding time in shower	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			C_W	Concentration of COPC in groundwater or surface water	µg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			WHF	water flow rate in whole house	L/day	342	Based on DOE 2000. Adjusts 890 L/day by single adult RME shower volume (548 L)	666	Based on DOE 2000. Adjusts 890 L/day by single adult CTE shower volume (224 L)	
			f_i	fraction volatilized	unitless	Chemical-specific	Calculated using physico-chemical parameters	Chemical-specific	Calculated using physico-chemical parameters	
			HV	house volume	m^3	450	DOE 2000	450	DOE 2000	
			ER	exchange rate	changes/day	10	DOE 2000	10	DOE 2000	
			MC	mixing coefficient	unitless	0.5	DOE 2000	0.5	DOE 2000	

References

Andelman, J.B. (1990). *Total Exposure to Volatile Organic Compounds in Potable Water*. In: Significance and Treatment of VOCs in Water Supplies; Cantor, K.P.; Christman, R.F.; Raro, M.M., Eds.; Lewis Publishers, Chelsea, MI, pp 485–504.

DOE. (2000). *Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant Paducah, Kentucky Volume 1*. *DOE/LX/07-0107&D2/R7/V1*. Human Health. U.S. Department of Energy.

Sanders, P.F. 2002. *A screening model for predicting concentrations of volatile organic chemicals in shower stall air.* Division of Science, Research and Technology, New Jersey Department of Environmental Protection, Trenton. May.

Schaum, J., Hoang, K., Kinerson, R., Moya, J., & Wang, R. G. M. (1994). *Estimating Dermal and Inhalation Exposure to Volatile Chemicals in Domestic Water.* In Water Contamination and Health *(pp. 305–321)*. Marcel Dekker, Inc.

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A) EPA/540/I-89/002*. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf

USEPA. (2011). *Exposure Factors Handbook: 2011 Edition*. U.S. Environmental Protection Agency Office of Research and Development.

USEPA. (2014). *Memorandum: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.* U.S. Environmental Protection Agency.

USEPA. (2020). *Regional Screening Levels (RSLs)*. U.S. Environmental Protection Agency. https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables

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TABLE B4.3
Values Used for Daily Intake Calculations
Groundwater - Trench: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Groundwater
Exposure Medium:	Groundwater - Trench

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Construction Workers	Adult (16+)	C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_w(mg/kg-day) = \frac{C_w \times IR_w \times ABS_{GI,water} \times EF \times ED}{AT \times BW}$
			IR_w	Average daily ingestion rate of groundwater or surface water	L/day	0.01	Professional judgement	0.01	Professional judgement	
			$ABS_{GI,\ water}$	Fraction absorbed from water in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	225	USEPA 2014. Based on USEPA 2002. For outdoor worker	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult industrial	
			ED	Exposure duration	years	1	USEPA 2002. Exhibit 5-1	1	USEPA 2002. Exhibit 5-1	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	365	USEPA 1989	365	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Dermal	Construction Workers	Adult (16+)	Ev_w	Average daily event frequency for groundwater or surface water	events/day	1	Professional judgement	1	Professional judgement	$ADD_d(mg/kg-day) = \frac{DA_{event} \times EV_w \times SA_w \times EF \times ED}{AT \times BW}$ **For Inorganics** $DA_{event}(mg/cm^2-event) = C_w \times K_p \times CF_2 \times t_{event}$ **For Organics** $If\ t_{event} \le t^*\ then:\ DA_{event} = 2\,FA \times K_p \times C_w \times CF_2 \times \sqrt{\frac{6\,tau_{event} \times t_{event}}{\pi}}$ $If\ t_{event} > t^*\ then:\ DA_{event} = FA \times K_p \times C_w \times CF_2 \times \left[\frac{t_{event}}{1+B} + 2\,tau_{event} \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right]$ $tau_{event}(hour/event) = 0.105 \times 10^{(0.0056 \times MW)}$ $\log K_p(unitless) = -2.80 + 0.66\log K_{ow} - 0.0056\,MW$ $B = K_p \times \frac{\sqrt{MW}}{2.6}$ $If\ B \le 0.6, then\ t^* = 2.4\,tau_{event}$ $If\ B > 0.6, then\ t^* = 6\,tau_{event}\left(b - \sqrt{b^2 - c^2}\right)$ $b = \frac{2(1+B)^2}{\pi} - c$ $c = \frac{1+3B+3B^2}{3(1+B)}$
			SA_w	Skin surface area available for contact with groundwater or surface water	cm^2	4,653	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	4,653	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	
			$EF_{outdoor}$	Exposure frequency	days/year	225	USEPA 2014. Based on USEPA 2002. For outdoor worker	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult industrial	
			ED	Exposure duration	years	1	USEPA 2002. Exhibit 5-1	1	USEPA 2002. Exhibit 5-1	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	365	USEPA 1989	365	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			K_p	Permeability coefficient	cm/hour	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			t_{event}	Water dermal event duration	hours/event	8	Professional judgement. Assumes 8 hour work day	8	Professional judgement. Assumes 8 hour work day	
			t^*	Time to reach steady-state	hours	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			FA	Fraction absorbed	unitless	Chemical-specific	USEPA 2004	Chemical-specific	USEPA 2004	
			tau_{event}	Lag time per event	hours/event	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			B	Ratio of permeability coefficients	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			MW	Molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			K_{ow}	Octanol-water partition coefficient	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
Inhalation	Construction Workers	Adult (16+)	C_{trench}	Chemical concentration in trench	$\mu g/m^3$	Chemical-specific	Site-specific. Calculated	Chemical-specific	Site-specific. Calculated	$EC_{air}(\mu g/m^3) = \frac{C_{trench} \times EF \times ED \times ET \times CF_3}{AT}$
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$C_{trench}\ (\mu g/m^3) = C_w \times VF$
			$EF_{outdoor}$	Exposure frequency	days/year	225	USEPA 2014. Based on USEPA 2002. For outdoor worker	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult industrial	$VF\ (L/m^3) = \frac{K_i \times A \times F \times CF_2 \times CF_4 \times CF_5)}{ACH \times V}$
			ED	Exposure duration	years	1	USEPA 2002. Exhibit 5-1	1	USEPA 2002. Exhibit 5-1	
			ET	Exposure time spent in impacted environment	hours/day	8	USEPA 2014. Based on work day	8	USEPA 2014. Based on work day	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	$K_i\ (cm/s) = \frac{1}{\left(\frac{1}{K_{iL}}\right) + \frac{R \times T}{(H \times K_{iG})}}$
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	365	USEPA 1989	365	USEPA 1989	
			A	Area of the trench	m^2	2.2	VDEQ 2020	2.22	VDEQ 2020	
			F	Fraction of floor through which contaminant can enter	Unitless	1	VDEQ 2020	1	VDEQ 2020	
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			CF_4	Area conversion factor	10000 cm^2/1 m^2	10,000	--	10,000	--	
			CF_5	Time conversion factor	3600 s/1 hour	3,600	--	3,600	--	$KiL\ (cm/s) = \left(\frac{MW_{O2}}{MW}\right)^{0.5} \times \frac{T}{298} \times K_{L,O2}$
			ACH	Air changes per hour	h^{-1}	2	VDEQ 2020	2	VDEQ 2020	
			V	Volume of the trench	m^3	0.84	VDEQ 2020	0.84	VDEQ 2020	
			R	Ideal gas constant	atm-m^3/mol-K	8.2E-05	VDEQ 2020	8.2E-05	VDEQ 2020	
			T	Average system absolute temperature	k	298	VDEQ 2020	298	VDEQ 2020	$K_{iG}\ (cm/s) = \left(\frac{MW_{H2O}}{MW}\right)^{0.335} \times \left(\frac{T}{298}\right)^{1.005 \times K_{g,H2O}}$
			H	chemical-specific henry's Law constant	atm m^3/mol	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			MW_{O2}	Molecular weight of component O_2	g/mol	32	VDEQ 2020	32	VDEQ 2020	
			MW	Chemical-specific molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			$K_{L,O2}$	Liquid-phase mass transfer coefficient of oxygen at 25° C	cm/s	0.002	VDEQ 2020	0.002	VDEQ 2020	
			MW_{H2O}	molecular weight of water	g/mol	18	VDEQ 2020	18	VDEQ 2020	
			$K_{G,H2O}$	gas-phase mass transfer coefficient of water vapor at 25° C	cm/s	0.83	VDEQ 2020	0.83	VDEQ 2020	

References

NYSDEC, & NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document*. New York State Department of Environmental Conservation and New York State Department of Health. https://www.dec.ny.gov/chemical/34189.html

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A) EPA/540/I-89/002*. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf

USEPA. (2002). *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. Office of Solid Waste and Emergency Response. OSWER 9355.4-24*. U.S. Environmental Protection Agency, Solid Waste and Emergency Response.

USEPA. (2011). *Exposure Factors Handbook: 2011 Edition*. U.S. Environmental Protection Agency Office of Research and Development.

USEPA. (2014). *Memorandum: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.* U.S. Environmental Protection Agency.

USEPA. (2020). *Regional Screening Levels (RSLs)*. U.S. Environmental Protection Agency. https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables

(VDEQ) Virginia Department of Environmental Quality. (2020). *Virginia Unified Risk Assessment Model-VURAM User Guide for Risk Assessors*.

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TABLE B4.4
Values Used for Daily Intake Calculations
Surface Water: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site
Medium:	Water
Exposure Medium:	Surface Water

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreators	Younger Child (0 - <6 years)	C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_w(mg/kg-day) = \frac{C_w \times IR_w \times ABS_{GI,water} \times EF \times ED}{AT \times BW}$
			IR_w	Average daily ingestion rate of groundwater or surface water	L/day	0.01	Professional judgement	0.01	Professional judgement	
			$ABS_{GI,\ water}$	Fraction absorbed from water in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	6	Professional judgement. Based on USEPA 2014 Resident ED	6	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			IR_w	Average daily ingestion rate of groundwater or surface water	L/day	0.01	Professional judgement	0.01	Professional judgement	
			$ABS_{GI,\ water}$	Fraction absorbed from water in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			IR_w	Average daily ingestion rate of groundwater or surface water	L/day	0.01	Professional judgement	0.01	Professional judgement	
			$ABS_{GI,\ water}$	Fraction absorbed from water in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on USEPA 2014 Resident ED	2	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
Food Ingestion (fish)	Recreators	Younger Child (0 - <6 years)	C_{fish}	Concentration of COPC in fish tissue	mg/kg	Chemical-specific	--	Chemical-specific	--	$ADD_{fish}(mg/kg-day) = \frac{C_{fish} \times (1-Loss) \times IR_{fish} \times AF_{fish} \times ABS_{GI,food} \times FI_{fish} \times ED}{AT \times BW}$
			Loss	Fraction of chemical-specific reduction due to preparation and cooking	unitless	0	Per USEPA request	Chemical-specific	--	
			AF_{fish}	Fish intake age adjustment factor	unitless	1.77	West et al. 1989	1.77	West et al. 1989	
			IR_{fish}	Average daily fish ingestion rate	g/kg-day	0.4	TAMS Consultants, Inc, & USACE 2000. High-end consumption based on 1991 Angler survey	0.05	TAMS Consultants, Inc, & USACE 2000. Mean consumption based on 1991 Angler survey	
			$ABS_{GI,\ food}$	Fraction absorbed from food in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			FI_{fish}	Fraction of total fish intake that is site-related	unitless	1	Professional judgement	1	Professional judgement	
			ED	Exposure duration	years	6	Professional judgement. Based on USEPA 2014 Resident ED	6	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_{fish}	Concentration of COPC in fish tissue	mg/kg	Chemical-specific	--	Chemical-specific	--	
			Loss	Fraction of chemical-specific reduction due to preparation and cooking	unitless	0	Per USEPA request	Chemical-specific	--	
			AF_{fish}	Fish intake age adjustment factor	unitless	1.77	West et al. 1989	1.77	West et al. 1989	
			IR_{fish}	Average daily fish ingestion rate	g/kg-day	0.4	TAMS Consultants, Inc, & USACE 2000. High-end consumption based on 1991 Angler survey	0.05	TAMS Consultants, Inc, & USACE 2000. Mean consumption based on 1991 Angler survey	
			$ABS_{GI,\ food}$	Fraction absorbed from food in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			FI_{fish}	Fraction of total fish intake that is site-related	unitless	1	Professional judgement	1	Professional judgement	
			ED	Exposure duration	years	10	Professional judgement. Based on USEPA 2014 Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_{fish}	Concentration of COPC in fish tissue	mg/kg	Chemical-specific	--	Chemical-specific	--	
			Loss	Fraction of chemical-specific reduction due to preparation and cooking	unitless	0	Per USEPA request	Chemical-specific	--	
			AF_{fish}	Fish intake age adjustment factor	unitless	1	Professional judgement	1	Professional judgement	
			IR_{fish}	Average daily fish ingestion rate	g/kg-day	0.4	TAMS Consultants, Inc, & USACE 2000. High-end consumption based on 1991 Angler survey	0.05	TAMS Consultants, Inc, & USACE 2000. Mean consumption based on 1991 Angler survey	
			$ABS_{GI,\ food}$	Fraction absorbed from food in gastrointestinal tract	unitless	1	Professional judgement	1	Professional judgement	
			FI_{fish}	Fraction of total fish intake that is site-related	unitless	1	Professional judgement	1	Professional judgement	
			ED	Exposure duration	years	10	Professional judgement. Based on USEPA 2014 Resident ED	2	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

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TABLE B4.4
Values Used for Daily Intake Calculations
Surface Water: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site
Medium:	Water
Exposure Medium:	Surface Water

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreators	Younger Child (0 - <6 years)	Ev_w	Average daily event frequency for groundwater or surface water	events/day	1	Professional judgement	1	Professional judgement	$ADD_d\,(mg/kg-day) = \frac{DA_{event} \times EV_w \times SA_w \times EF \times ED}{AT \times BW}$
			SA_w	Skin surface area available for contact with groundwater or surface water	cm^2	1,315	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	1,315	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	6	Professional judgement. Based on USEPA 2014 Resident ED	6	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			K_p	Permeability coefficient	cm/hour	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			t_{event}	Water dermal event duration	hours/event	2.4	Professional judgement. Assumes surface water contact for 25% of time spent recreating (9.5 hours)	2.4	Professional judgement. Assumes surface water contact for 25% of time spent recreating (9.5 hours)	**For Inorganics**
			t*	Time to reach steady-state	hours	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	$DA_{event}(mg/cm^2-event) = C_w \times K_p \times CF_2 \times t_{event}$
			FA	Fraction absorbed	unitless	Chemical-specific	USEPA 2004	Chemical-specific	USEPA 2004	
			tau_{event}	Lag time per event	hours/event	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			B	Ratio of permeability coefficients	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			MW	Molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			K_{ow}	Octanol-water partition coefficient	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	**For Organics**
		Older Child (6 - <16 years)	Ev_w	Average daily event frequency for groundwater or surface water	events/day	1	Professional judgement	1	Professional judgement	$If\ t_{event} \le t^*\ then:\ DA_{event} = 2\,FA \times K_p \times C_w \times CF_2 \times \sqrt{\frac{6\,tau_{event} \times t_{event}}{\pi}}$
			SA_w	Skin surface area available for contact with groundwater or surface water	cm^2	2,999	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	2,999	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	$If\ t_{event} > t^*\ then:\ DA_{event} = FA \times K_p \times C_w \times CF_2 \times \left[\frac{t_{event}}{1+B} + 2\,tau_{event} \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right]$
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	$tau_{event}(hour/event) = 0.105 \times 10^{(0.0056 \times MW)}$
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	$log\ K_p(unitless) = -2.80 + 0.66\,log\,K_{ow} - 0.0056\,MW$
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	$B = K_p \times \frac{\sqrt{MW}}{2.6}$
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			K_p	Permeability coefficient	cm/hour	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	$If\ B \le 0.6, then\ t^* = 2.4\,tau_{event}$
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			t_{event}	Water dermal event duration	hours/event	2.4	Professional judgement. Assumes surface water contact for 25% of time spent recreating (9.5 hours)	2.4	Professional judgement. Assumes surface water contact for 25% of time spent recreating (9.5 hours)	$If\ B > 0.6, then\ t^* = 6\,tau_{event}\left(b - \sqrt{b^2 - c^2}\right)$
			t*	Time to reach steady-state	hours	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			FA	Fraction absorbed	unitless	Chemical-specific	USEPA 2004	Chemical-specific	USEPA 2004	$b = \frac{2\,(1+B)^2}{\pi} - c$
			tau_{event}	Lag time per event	hours/event	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			B	Ratio of permeability coefficients	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	$c = \frac{1+3B+3B^2}{3(1+B)}$
			MW	Molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			K_{ow}	Octanol-water partition coefficient	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
		Adult (16+)	Ev_w	Average daily event frequency for groundwater or surface water	events/day	1	Professional judgement	1	Professional judgement	
			SA_w	Skin surface area available for contact with groundwater or surface water	cm^2	4,653	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	4,653	USEPA 2011. Table 7-2 (Males and females forearms, hands, lower legs)	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on USEPA 2014 Resident ED	2	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	
			C_w	Concentration of COPC in groundwater or surface water	mg/L	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			K_p	Permeability coefficient	cm/hour	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			CF_2	Volumetric conversion factor for water	1 L/1000 cm^3	0.001	--	0.001	--	
			t_{event}	Water dermal event duration	hours/event	2.4	Professional judgement. Assumes surface water contact for 25% of time spent recreating (9.5 hours)	2.4	Professional judgement. Assumes surface water contact for 25% of time spent recreating (9.5 hours)	
			t*	Time to reach steady-state	hours	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			FA	Fraction absorbed	unitless	Chemical-specific	USEPA 2004	Chemical-specific	USEPA 2004	
			tau_{event}	Lag time per event	hours/event	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			B	Ratio of permeability coefficients	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			MW	Molecular weight	grams	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	
			K_{ow}	Octanol-water partition coefficient	unitless	Chemical-specific	USEPA 2020	Chemical-specific	USEPA 2020	

References
NYSDEC, & NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document*. New York State Department of Environmental Conservation and New York State Department of Health. https://www.dec.ny.gov/chemical/34189.html
TAMS Consultants, Inc, & USACE. (2000). *Phase 2 Report. Further Site Characterization and Analysis. Volume 2F - Revised Human Health Risk Assessment. Hudson River PCBs Reassessment RI/FS*. Prepared for U.S. Environmental Protection Agency Region 2 and U.S. Army Corps of Engineers Kansas City District.
USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A)* EPA/540/I-89/002. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf
USEPA. (2011). *Exposure Factors Handbook: 2011 Edition*. U.S. Environmental Protection Agency Office of Research and Development.
USEPA. (2014). *Memorandum: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.* U.S. Environmental Protection Agency.
USEPA. (2020). *Regional Screening Levels (RSLs)*. U.S. Environmental Protection Agency. https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables
West, P.C. , Fly, J.M., Marans, R., Larkin, F., & Rosenblatt, D. (1989). *Michigan sport anglers fish consumption study*. Ann Arbor, MI: Michigan Department of Natural Resources.

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TABLE B4.5
Values Used for Daily Intake Calculations
Sediment: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site
Medium:	Sediment
Exposure Medium:	Sediment

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreators	Younger Child (0 - <6 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$ADD_d(mg/kg-day) = \frac{C_s \times CF_1 \times EV_s \times SA_s \times AF_s \times ABS_d \times EF \times ED}{AT \times BW}$
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	2,373	Professional judgement. USEPA 2014. Child resident	1,870	Professional judgement. NYSDEC & NYSDOH 2006 for child resident	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	0.04	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	6	Professional judgement. Based on USEPA 2014 Resident ED	6	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
			BW	Body weight	kg	15	USEPA 2011. Table 8-3	15	USEPA 2011. Table 8-3	
		Older Child (6 - <16 years)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	4,540	USEPA 2011. Table 7-2 (Males and females forearms, hands, feet, lower legs)	4,530	Professional judgement. NYSDEC & NYSDOH 2006 for adolescent industrial	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.2	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	0.04	Professional judgment. Based on child resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on Resident ED. USEPA 2014	10	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
			BW	Body weight	kg	44	USEPA 2011. Table 8-3	44	USEPA 2011. Table 8-3	
		Adult (16+)	C_s	Concentration of COPC in soil or sediment	mg/kg	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			CF_1	Mass conversion factor for soil or sediment	10^{-6} kg/1 mg	1E-06	--	1E-06	--	
			EV_s	Event frequency for soil or sediment	events/day	1	USEPA 1989	1	USEPA 1989	
			SA_s	Skin surface area available for contact with soil or sediment	cm^2	6,032	Professional judgement. USEPA 2014. Adult resident	4,850	Professional judgement. NYSDEC & NYSDOH 2006 for adult resident	
			AF_s	Skin surface adherence factor for soil or sediment	mg/cm^2-event	0.07	Professional judgment. Based on adult resident value. USEPA 2004 Exhibit 3-5	0.01	Professional judgment. Based on adult resident value. USEPA 2004 Exhibit 3-5	
			ABS_d	Dermal-soil, or dermal-sediment absorption value	unitless	Chemical-specific	USEPA 2004. Exhibit 3-4	Chemical-specific	USEPA 2004, Exhibit 3-4	
			$EF_{outdoor}$	Exposure frequency	days/year	50	Professional judgement. Assumes 1 day/week for 50 weeks/year	30	Professional judgement. NYSDEC & NYSDOH 2006 assumption of 217 days/year	
			ED	Exposure duration	years	10	Professional judgement. Based on USEPA 2014 Resident ED	2	Professional judgement. Based on Resident ED. USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
			BW	Body weight	kg	80	USEPA 2014	80	USEPA 2014	

References

NYSDEC, & NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document* . New York State Department of Environmental Conservation and New York State Department of Health. https://www.dec.ny.gov/chemical/34189.html

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS). Volume I, Human Health Evaluation Manual (Part A) EPA/540/I-89/002* . U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf

USEPA. (2004). *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual. Part E, Supplemental Guidance for Dermal Risk Assessment. Final* . U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/part_e_final_revision_10-03-07.pdf

USEPA. (2011). *Exposure Factors Handbook: 2011 Edition* . U.S. Environmental Protection Agency Office of Research and Development.

USEPA. (2014). *Memorandum: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.* U.S. Environmental Protection Agency.

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TABLE B4.6
Values Used for Daily Intake Calculations
Ambient Air: Reasonable Maximum Exposure and Central Tendency Exposure
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046
Risk Assessment Guidance for Superfund (RAGS) - Part D, Table 4

Study Area:	Off-Site, On-Site
Medium:	Ambient Air
Exposure Medium:	Ambient Air

Exposure Route	Receptor Population	Receptor Age	Parameter Code	Parameter Definition	Units	RME Value	Rationale/ Reference	CTE Value	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Residents	Younger Child (0 - <6 years)	C_{air}	Concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$EC_{air}(\mu g/m^3) = \frac{C_{air} \times EF \times ED \times ET \times CF_3}{AT}$
			EF	Exposure frequency	days/year	350	USEPA 2014	155	Equivalent EF based on NYSDEC & NYSDOH 2006 child resident	
			ED	Exposure duration	years	6	USEPA 2014. Based on USEPA 2011	6	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	24	USEPA 2014. Based on whole day	24	USEPA 2014. Based on whole day	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	2,190	USEPA 1989	2,190	USEPA 1989	
		Older Child (6 - <16 years)	C_{air}	Concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			EF	Exposure frequency	days/year	350	USEPA 2014	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult resident	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	10	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	24	USEPA 2014. Based on whole day	24	USEPA 2014. Based on whole day	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	3,650	USEPA 1989	
		Adult (16+)	C_{air}	Concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	
			EF	Exposure frequency	days/year	350	USEPA 2014	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult resident	
			ED	Exposure duration	years	10	USEPA 2014. Based on USEPA 2011	2	USEPA 2011. Table 16-109. Estimated 80th percentile value for lognormal distribution fit	
			ET	Exposure time spent in impacted environment	hours/day	24	USEPA 2014. Based on whole day	24	USEPA 2014. Based on whole day	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	3,650	USEPA 1989	730	USEPA 1989	
Inhalation	Commercial/ Industrial Workers	Adult (16+)	C_{air}	Concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$EC_{air}(\mu g/m^3) = \frac{C_{air} \times EF \times ED \times ET \times CF_3}{AT}$
			EF	Exposure frequency	days/year	250	USEPA 2014. Based on USEPA 1991. For indoor worker	124	Equivalent EF based on NYSDEC & NYSDOH 2006 adult commercial	
			ED	Exposure duration	years	25	USEPA 2014	6.6	USEPA 2011. Table 16-103. Median occupational tenure	
			ET	Exposure time spent in impacted environment	hours/day	8	USEPA 2014. Based on work day	8	USEPA 2014. Based on work day	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	9,125	USEPA 1989	2,409	USEPA 1989	
Inhalation	Construction Workers	Adult (16+)	C_{air}	Concentration of COPC in ambient air	µg/m^3	Chemical-specific	Site-specific	Chemical-specific	Site-specific	$EC_{air}(\mu g/m^3) = \frac{C_{air} \times EF \times ED \times ET \times CF_3}{AT}$
			EF	Exposure frequency	days/year	225	USEPA 2014. Based on USEPA 2002. For outdoor worker	62	Equivalent EF based on NYSDEC & NYSDOH 2006 adult industrial	
			ED	Exposure duration	years	1	USEPA 2002. Exhibit 5-1	1	USEPA 2002. Exhibit 5-1	
			ET	Exposure time spent in impacted environment	hours/day	8	USEPA 2014. Based on work day	8	USEPA 2014. Based on work day	
			CF_3	Time conversion factor	1 day/24 hours	0.042	--	0.042	--	
			AT_c	Averaging time, carcinogenic	days	25,550	USEPA 1989	25,550	USEPA 1989	
			AT_{nc}	Averaging time, noncarcinogenic	days	365	USEPA 1989	365	USEPA 1989	

References

NYSDEC, & NYSDOH. (2006). *New York State Brownfield Cleanup Program. Development of Soil Cleanup Objectives. Technical Support Document*. New York State Department of Environmental Conservation and New York State Department of Health. https://www.dec.ny.gov/chemical/34189.html

USEPA. (1989). *Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A) EPA/540/I-89/002*. U.S. Environmental Protection Agency. https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf

USEPA. (1991). Ecological Assessment of Superfund Sites: An Overview. ECO Update. Intermittent Bulletin Volume 1, Number 2. U.S. Environmental Protection Agency.

USEPA. (2002). *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. Office of Solid Waste and Emergency Response. OSWER 9355.4-24*. U.S. Environmental Protection Agency, Solid Waste and Emergency Response.

USEPA. (2011). *Exposure Factors Handbook: 2011 Edition*. U.S. Environmental Protection Agency Office of Research and Development.

USEPA. (2014). *Memorandum: Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors.* U.S. Environmental Protection Agency.

TABLE B5

Current NYSDEC & NYSDOH (2006) Derivation of Time-weighted Average Soil and Dust Ingestion Rates

McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Land Use (1)	Age Group	Variable	Abbreviation	Units	Soil	Dust	Soil + Dust
Unrestricted, Residential, and Restricted Residential	Child	Ingestion Rate	IR_s	mg/day	80	40	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (3)	EF_2	days/week	5	7	
		Weighting Factor (4)	WF	unitless			0.42
		Equivalent EF (5)	EF_eq	days/year			**155**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	34	40	**74**
	Adult	Ingestion Rate	IR_s	mg/day	100	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (7)	EF_2	days/week	2	7	
		Weighting Factor	WF	unitless			0.17
		Equivalent EF	EF_eq	days/year			**62**
		TWA Ingestion Rate (4)	IR_s_TWA	mg/day	17	0	**17**
Commerical	Child Visitor	Ingestion Rate (8)	IR_s	mg/day	53	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (9)	EF_2	days/week	2	0	
		Weighting Factor (4)	WF	unitless			0.17
		Equivalent EF (5)	EF_eq	days/year			**62**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	9	0	**9**
	Adult	Ingestion Rate	IR_s	mg/day	50	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (10)	EF_2	days/week	4	0	
		Weighting Factor (4)	WF	unitless			0.34
		Equivalent EF (5)	EF_eq	days/year			**124**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	17	0	**17**
Industrial	Adolescent Trespasser	Ingestion Rate	IR_s	mg/day	100	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (11)	EF_2	days/week	1	0	
		Weighting Factor (4)	WF	unitless			0.08
		Equivalent EF (5)	EF_eq	days/year			**31**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	8	0	**8.5**
	Adult	Ingestion Rate	IR_s	mg/day	50	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (12)	EF_2	days/week	2	0	
		Weighting Factor (4)	WF	unitless			0.17
		Equivalent EF (5)	EF_eq	days/year			**62**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	8	0	**8.5**

TABLE B5

Current NYSDEC & NYSDOH (2006) Derivation of Time-weighted Average Soil and Dust Ingestion Rates

McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Land Use (1)	Age Group	Variable	Abbreviation	Units	Soil	Dust	Soil + Dust

TWA = time weighted average

Footnotes

(1) NYSDEC (2016, pp. 107-109), discussion of assumptions regarding soil and dust ingestion rates and exposure frequency, by land use category.

(2) Assumption is that ingestion of outdoor soil occurs only during warmer months of the year: 7 days/week x 31 weeks/year = 217 days/year. Based on analysis of meteorlogical data (dates of last spring frost before April 10 and first fall frost after November 10) by Cornell Cooperative Extension Agency for five NY counties: Kings, Nassau, Queens, Richmond, and Suffolk.

(3) Assumption that soil ingestion occurs 5 days per week because child is not outdoors every day.

(4) Weighting factor is the product of fraction of year (EF_1 /365) and fraction of week (EF_2 / 7): WF = (EF_1 / 365) x (EF_2 / 7).

(5) Standard dose equations have a single term for exposure frequency in units of days per year. This can be expressed as the "equivalent EF": EF_eq = WF x 365 days/year. For example, for a child resident, EF_eq = WF x 365 d/year = [(217 / 365) x (5 / 7)] = 0.42 x 365 = 155 days/year.

(6) IR_s_TWA = IR_s x EF_1 x EF_2

(7) Assumption that adult may be exposed to outdoor soil 2 days per week through activities such as gardening and lawn care.

(8) Assumes that outdoor soil ingestion rate of 80 mg/day is associated with 3 hours/day outdoors, but for commecial sites, a child will be outdoors 2 hours/day. Therefore, applied a two-thirds multiplier: 80 x 2/3 = 53 mg/day.

(9) Assumption that child may visit a commercial site (e.g., park) on 2 days per week.

(10) Assumption that adult worker will have exposure to contaminated soil at commercial park on four of five working days per week.

(11) Assumption that adolescent trespasser will be present at an industrial site on 1 day per week.

(12) Assumption that adult worker at a commercial site will have exposure to contaminated soil on two of five working days per week.

GSI ENVIRONMENTAL

TABLE B6

Soil and Dust Ingestion Rate (mg/day) CTE and RME Values by Age Group and Receptor Scenario

McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

USEPA EFH Age Group (1)	USEPA EFH (2011) (2)		NYSDEC and NYSDOH (2006) (3)				USEPA EFH (2017)						BHHRA Work Plan		
	Soil + Dust			Soil	Dust	Soil + Dust	Soil		Dust		Soil + Dust			Soil + Dust	
	CTE	RME	Receptor Scenario	CTE	CTE	CTE	CTE	RME	CTE	RME	CTE (9)	RME	Receptor Scenario	CTE	RME
< 6 months	--	--	--	--	--	--	20	50	20	60	40	100	--	--	--
6 months to < 1 year	60	--	--	--	--	--	30	90	40	100	70 (60 - 80)	200	--	--	--
1 to < 2 years	--	--	--	--	--	--	40	90	50	100	90	200	--	--	--
2 to < 6 years	--	200	child visitor (4)	53	0	53	30	90	30	100	60	200	--	--	--
1 to < 6 years	100	--	child resident (5)	80	40	120	40	90	40	100	80 (60 - 100)	200	resident, child (0 to < 6 yr)	80	200
													recreator, child (0 to < 6 yr)	80	100
6 to < 12 years	100	--	adolescent trespasser (6)	100	0	100	30	90	30	100	60 (60 - 60)	200	resident, child (6 to < 16 yr)	60	200
													trespasser, child (6 to < 16 yr)	60	100
													recreator, child (6 to < 16 yr)	60	100
12 years through adult	50	100	adult resident (7)	100	0	100	10	50	20	60	30 (4 - 50)	100	resident, adult	50	100
													trespasser, adult (16+ yr)	50	100
													recreator, adult	50	100
			adult worker - commercial (8)	50	0	50							adult worker (commercial/industrial)	50	100
			adult worker - industrial (8)	50	0	50									
			--	--	--	--							adult worker (construction)	330	330

CTE = central tendency exposure
EFH = Exposure Factors Handbook
RME = reasonable maximum exposure
NYSDEC = New York State Department of Environmental Protection
NYSDOH = New York State Deparment of Health
USEPA = U.S. Environmental Protection Agency

Footnotes

(1) Age groups reflect the most recent USEPA (2017) summary; some of these age groups were not included in the USEPA (2011) summary.
(2) USEPA (2011) also provides separate estimates for soil and dust, which are not shown here. USEPA (1997) recommends CTE values of 100 to 200 mg/day for children (no age group specified) and 50 mg/day for adults.
(3) See NYSDEC & NYSDOH (2016, pp. 107-109), discussion of assumptions regarding soil and dust ingestion rates and exposure frequency, by land use category.
(4) NYSDEC & NYSDOH assumed that the child visitor soil ingestion rate is 2/3 the child resident soil ingestion rate (i.e., 2 hours outdoors instead of 3 hours outdoors); consistent with USEPA (2017), this is: 2/3 x 40 mg/day = 27 mg/day.
(5) Consistent with USEPA (2017), the child resident soil ingestion rate would change from 80 mg/day to 40 mg/day.
(6) Consistent with USEPA (2017), the adolescent trespasser soil ingestion rate would change from 100 mg/day to 60 mg/day.
(7) Consistent with USEPA (2017), the adult resident soil ingestion rate would change from 100 mg/day to a value in the range 30 to 50 mg/day.
(8) Consistent with USEPA (2017), the adult commercial/industrial worker soil ingestion rate would change from 50 mg/day to a value in the range 30 to 50 mg/day.
(9) Values in parentheses represent the range of CTE values (arithmetic mean or median) reported from different studies.

GSI ENVIRONMENTAL

TABLE B7

Update of NYSDEC and NYSDOH (2006) Derivation of Time-weighted Average Soil and Dust Ingestion Rates

McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Land Use (1)	Age Group	Variable	Abbreviation	Units	Soil	Dust	Soil + Dust
Unrestricted, Residential, and Restricted Residential	Child	Ingestion Rate	IR_s	mg/day	40 *	40	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (3)	EF_2	days/week	5	7	
		Weighting Factor (4)	WF	unitless			0.42
		Equivalent EF (5)	EF_eq	days/year			**155**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	17	40	**57**
	Adult	Ingestion Rate	IR_s	mg/day	100	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (7)	EF_2	days/week	2	7	
		Weighting Factor	WF	unitless			0.17
		Equivalent EF	EF_eq	days/year			**62**
		TWA Ingestion Rate (4)	IR_s_TWA	mg/day	17	0	**17**
Commerical	Child Visitor	Ingestion Rate (8)	IR_s	mg/day	27 *	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (9)	EF_2	days/week	2	0	
		Weighting Factor (4)	WF	unitless			0.17
		Equivalent EF (5)	EF_eq	days/year			**62**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	5	0	**5**
	Adult	Ingestion Rate	IR_s	mg/day	30 *	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (10)	EF_2	days/week	4	0	
		Weighting Factor (4)	WF	unitless			0.34
		Equivalent EF (5)	EF_eq	days/year			**124**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	10	0	**10**
Industrial	Adolescent Trespasser	Ingestion Rate	IR_s	mg/day	30 *	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (11)	EF_2	days/week	1	0	
		Weighting Factor (4)	WF	unitless			0.08
		Equivalent EF (5)	EF_eq	days/year			**31**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	3	0	**2.5**
	Adult	Ingestion Rate	IR_s	mg/day	30 *	0	
		Exposure Frequency Outdoors (2)	EF_1	days/year	217	365	
		Exposure Frequency for Activity (12)	EF_2	days/week	2	0	
		Weighting Factor (4)	WF	unitless			0.17
		Equivalent EF (5)	EF_eq	days/year			**62**
		TWA Ingestion Rate (6)	IR_s_TWA	mg/day	5	0	**5.1**

TABLE B7

Update of NYSDEC and NYSDOH (2006) Derivation of Time-weighted Average Soil and Dust Ingestion Rates

McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Land Use (1)	Age Group	Variable	Abbreviation	Units	Soil	Dust	Soil + Dust

TWA = time weighted average

Footnotes

***Updates of soil and dust ingestion rate are consistent with USEPA's current Exposure Factors Handbook (2017, Chapter 5).**

(1) NYSDEC (2016, pp. 107-109), discussion of assumptions regarding soil and dust ingestion rates and exposure frequency, by land use category.

(2) Assumption is that ingestion of outdoor soil occurs only during warmer months of the year: 7 days/week x 31 weeks/year = 217 days/year. Based on analysis of meteorlogical data (dates of last spring frost before April 10 and first fall frost after November 10) by Cornell Cooperative Extension Agency for five NY counties: Kings, Nassau, Queens, Richmond, and Suffolk.

(3) Assumption that soil ingestion occurs 5 days per week because child is not outdoors every day.

(4) Weighting factor is the product of fraction of year (EF_1 /365) and fraction of week (EF_2 / 7): WF = (EF_1 / 365) x (EF_2 / 7).

(5) Standard dose equations have a single term for exposure frequency in units of days per year. This can be expressed as the "equivalent EF": EF_eq = WF x 365 days/year. For example, for a child resident, EF_eq = WF x 365 d/year = [(217 / 365) x (5 / 7)] = 0.42 x 365 = 155 days/year.

(6) IR_s_TWA = IR_s x EF_1 x EF_2

(7) Assumption that adult may be exposed to outdoor soil 2 days per week through activities such as gardening and lawn care.

(8) Assumes that outdoor soil ingestion rate of 80 mg/day is associated with 3 hours/day outdoors, but for commecial sites, a child will be outdoors 2 hours/day. Therefore, applied a two-thirds multiplier: 80 x 2/3 = 53 mg/day.

(9) Assumption that child may visit a commercial site (e.g., park) on 2 days per week.

(10) Assumption that adult worker will have exposure to contaminated soil at commercial park on four of five working days per week.

(11) Assumption that adolescent trespasser will be present at an industrial site on 1 day per week.

(12) Assumption that adult worker at a commercial site will have exposure to contaminated soil on two of five working days per week.

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Issued: 11 June 2021

WORK PLAN FOR BASELINE HUMAN HEALTH RISK ASSESSMENT

McCAFFREY STREET SITE
(Site No. 442046, USEPA ID# NYD004986741)

APPENDIX C

APPENDIX C: **Response to Comments Summary**

Table C1: **Response to NYSDEC and USEPA Comments on Draft Risk Assessment Work Plan**

Table C2: **Response to NYSDEC and USEPA Comments on Biota Sampling and Analysis Plan**

TABLE C1
Comments and Responses on Draft BHHRA and BERA Work Plans Submitted September 2020 - Updated with Comments Recevied April 2021
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Comment	Type*	Section	Page	Comment by NYSDEC and USEPA	Clarification of Comment by NYSDEC and USEPA[a]	Response / Resolution in Revised Work Plan
General Comments						
GC-1	S	--	--	For all B6:H81future submittals, please separate the Human Health Risk Assessment (HHRA) and the Baseline Ecological Risk Assessment (BERA).		Separate Work Plans for BHHRA and BERA are prepared, noting some intentional redundancy of text, tables, figures, and appendices in both documents.
GC-2	S	--	--	The work plan for the ecological portion of the Baseline Risk Assessment appears to contain components of a screening level ecological risk assessment (SLERA), such as screening tables, but does not contain other components, such as detailed text and discussion that would be part of a SLERA. It would be beneficial to provide additional discussion regarding the screening process that was provided in the work plan. Several options would be to present the screening information, combined with additional text in a SLERA section of the work plan or to include the needed information within the baseline risk assessment document. The advantage of presenting the information within the work plan would allow reviewers to better understand the process and provide better support for approving parameters and values described in the work plan.	The work plan for the ecological portion of the Baseline Risk Assessment appears to contain components of a screening level ecological risk assessment (SLERA), such as screening tables, but does not contain other components, such as detailed text and discussion that would be part of a SLERA. It would be beneficial to provide additional discussion regarding the screening process that was provided in the work plan. Several options would be to present the screening information, combined with additional text in a SLERA section of the work plan or to include the needed information within the baseline risk assessment document. The advantage of presenting the information within the work plan would allow reviewers to better understand the process and provide better support for approving parameters and values described in the work plan. In order to avoid potential delays with the addition of the information, an appendix including the SLERA is agreeable.	The SLERA is now Appendix B, Section 1, of the BERA Work Plan and addresses USEPA ERAGS Steps 1 and 2. Appendix B, Section 2, addresses all of the requirements of NYSDEC FWIA (1994).
GC-3	S	--	--	Additional information should be provided regarding the definition of off-site and on-site, especially for surface water. A figure clearly delineating what areas are considered on-site and off-site should be included.		On-site versus off-site has been further clarified in text and legend of figures. For both the BHHRA and BERA Work Plans, as stated in Section 2.1 (Site and Project Area Description) and Figure 1, "on-site" is defined as within the McCaffrey Street facility tax parcel while "off-site" is defined as within the Project Area polygon, but outside of the facility tax parcel.
GC-4	S	--	--	The historic data that is available was presented in the document, but it was not clear if additional data will be collected for use in the baseline risk assessment, such as biota tissue and additional abiotic samples (e.g., surface water, sediment and soil). Additionally, since there are limited toxicity data for PFAS compounds in the literature for benthic invertebrates, it may be beneficial to add sediment toxicity testing, and/or porewater toxicity testing, as a line of evidence, especially in areas where groundwater discharge may be a major transport mechanism.		A separate Biota Sampling and Analysis Plan (SAP) will be submitted for review in February 2021. Site-specific media targeted for sampling includes: surface water, sediment, aquatic invertebrates and plants, fish, terrestrial invertebrates and plants, and small mammals. Validated data will be included in the BHHRA and BERA. The Biota SAP is included in the Schedule in the last section of each Work Plan, included in the database description (Section 4), and also referred to in Exposure Assessment sections.
GC-5	S	--	--	The following items are requirements of Step I of the NYSDEC Fish and Wildlife Impact Analysis (FWIA), but are not present in this Screening Level Ecological Risk Assessment (SLERA). Please include these items in this document. a) Site maps as described in Step I A of Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (NYSDEC, 1994), Figures depicting regulated wetlands, other surface water features including rivers, streams, and lakes, significant habitats, and drainage, are required. b) An assessment of endangered and threatened species. c) A discussion of the value of the habitat to fish and wildlife and humans. d) A list of all applicable New York State and federal regulations pertaining to fish and wildlife.		The SLERA is included as Appendix B to the BERA Work Plan. Section 2 of the SLERA specifically addresses requirements of FWIA. In addition, elements of the BERA Work Plan (e.g., figures) provide site maps.

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GC-6	S	--	--	Project Area limitations: The Risk Assessment Work Plan (RAWP) indicates that certain available data/lines of evidence collected outside the Project area are excluded from the risk assessment. The only exception is that analytical results related to New York State Department of Environmental Conservation (NYSDEC) fish sampling from the Hoosick River were retained. Any additional data to describe, even in broad terms, the relative attenuation with distance from the site-related source areas is meaningful to both the risk assessment and the overall project. Though these samples may not be material to development of the Project Area- or population-specific quantitative point estimates of risk and hazard, they are relevant in a discussion of region-wide impact or in the elucidation of additional confounding sources and could be considered as components of the Uncertainty Assessment.		For the purposes of assessing potential risk related to the McCaffrey Street facility, the BHHRA and BERA will include data collected from within the Project Area, and biota samples collected within the Hoosic River and reference locations (see the Sampling and Analysis Plan, submitted for review in February 2021). Additional data that may inform the attenuation of site-related constituents and regional impacts may be collected as part of the ongoing Remedial Investigation (RI). The RI conceptual site models include additional source-pathway-receptor discussion; this information will be discussed in the final risk assessments' Risk Characterization Sections. See clarifying text in Section 2.1 of both the BHHRA and BERA Work Plans.
GC-7	S	--	--	Treatment of duplicates: The RAWP proposes random selection of analytical results for media-specific samples associated with quality assurance/quality control (QA/QC) activities. Treatment of duplicates is not definitively prescribed in available guidance, although the most common practice is to select a detection in favor of a nondetect (ND) result and to select the greater result when two detections are available, in keeping with the conservative nature of risk assessment. Treatment of duplicates represents a professional judgment call and although the selected process could have an influence on the outcomes of exposure point concentrations (EPCs) the overall effect is not expected to be substantive. The process of selecting the greater of two values will tend to invite additional conservatism; however, selection of another value which incorporates greater variability could, theoretically, increase associated conservatism in development of an upper-bound estimate on the mean. Please revise the proposed treatment of duplicates to preferentially select the greater of the sample result or its duplicate.		As discussed during the teleconference on December 11, 2020, the relative percent difference (RPD) between duplicate and parent samples is small. The BERA and BHHRA will present an RPD analysis within the Uncertainty Analysis of the risk assessments and will demonstrate the quantitative impact on risk characterization determinations based on different data processing steps. This is stated in the BHHRA Work Plan Sections 4.2 and 9.4.2 and the BERA Work Plan in Sections 4.2 and 5.3.2.
GC-8	S	--	--	The term "background" is used throughout the work plan as a basis for comparison of on-site and/or site-related contamination but the term is not defined for use in this context. Care must be exercised when using the term "background" to avoid general and inaccurate conclusions. Comparison of site-related contamination to background levels is not appropriate without NYSDEC agreement on a dataset to be used to define background conditions and resolution as to an appropriate background value for relevant COPCs. The work plan should reference NYSDEC-approved background data sets for all site-related COPCs. If no data set is available for reference, a site-specific background study may be necessary if other lines of evidence are determined to be insufficient.		The BERA and BHHRA Work Plans reference NYSDEC background data sets and use those existing data to evaluate concentrations of analytes within the Project Area. Neither risk assessment will eliminate COPCs based on background levels, however, as discussed in the BHHRA Work Plan Section 9.3.1. and BERA Work Plan Section 4.2, COPCs and COPECs will be compared to NYSDEC background levels to provide context and more detailed information to inform risk characterization results.
GC-9	S	--	--	The HHRA and BERA must address all exposures to site-related COPCs. The NYSDEC does not agree that the project area presented in the draft work plan adequately encompasses all potential exposure end points. The project area will be determined based on a refined conceptual site model that understands the extent of site-related COPCs documented during the site RI and other investigations conducted in the Hoosick valley.		As discussed during the teleconference on December 11, 2020, the baseline risk assessments will use all existing data collected as part of the McCaffrey Street RI, additional site-specific biota collected, as described in the February 2021, Sampling and Analysis Plan, and supplemented with fish data collected by NYSDEC/NYSDOH. We agree that the McCaffrey Street baseline risk assessment CSMs developed during the Work Plan stage are preliminary and subject to change as the understanding evolves from the evaluation of contaminants of potential concern and relative contributions of exposure pathways to total dose and risk. Based on the initial human health screening assessment (BHHRA Work Plan Section 5) and SLERA (BERA Work Plan SLERA Appendix B), no potential exposure pathways have been eliminated.

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GC - 10	S	--	--	Comments related to additional biological data needs will be addressed upon the acceptance of a suitable site model.		The separate Biota Sampling and Analysis Plan compiled by ERM and GSI will be submitted to agency review in February 2021.
GC - 11	S	--	--	Soil contact horizons: The surface soil horizon underpinning assessment of residential adult and child direct contact exposures is 0-2 ft bgs. The surface soil horizon underpinning assessment of generic occupational worker direct contact exposures is 0-1 ft bgs. USEPA defines surface soil as the top two centimeters (USEPA, 2002), representing the basis for the majority of routine direct contact exposures for populations not engaged in intrusive activities. In this case, because screening considers the maximum detected concentration across a given horizon and given PFAS' propensity to solubilize and leach to deeper horizons, the current approach is acceptable. Depending on analytical results, a future recommendation may be made as to definition of surface soil to support EPC development. Garden tiling and home ownership repairs are among the rationalizations used to support a 0-2 ft bgs soil horizon; however, these activities, along with regrading and future development are typically captured under the future potential condition in an assessment of direct contact exposure attributable to total soil (surface + subsurface soil) – a condition also assessed within the proposed RAWP strategy (0-10 ft bgs). Should primary constituents of potential concern (COPCs) exhibit greater concentrations in the 0-1 ft bgs vs 0-2 ft bgs soil horizons, data collected from the 0-1 ft bgs soil horizon should underpin the basis for residential surface soil EPCs.		The current screening level HHRA takes a conservative approach by comparing the maximum concentration detected of an analyte across a wide soil depth range. These wide soil depth definitions may not be suitable for the calculation of soil EPCs for receptors that may only be in contact with the surface soil (e.g., top 2 centimeters). As described in Section 7.3.4, prior to calculating soil EPCs, exploratory data analysis and statistics will be used to evaluate the distribution, frequency of detection, and potential outliers for COPCs in each exposure unit. This evaluation will guide the calculation of the EPCs and ensure that the data grouping does not biases results.
GC - 12	S	--	--	Surface water screening: The proposed screening basis for surface water is based on the National Ambient Water Quality Criteria (NAWQC) for consumption of water and organisms, which is generally acceptable. The NAWQC list is not expansive, however. The preferred, more comprehensive option is to utilize drinking water screening criteria for this screening process, such as the USEPA Regional Screening Levels (RSLs) for tap water. The use of these latter standards is not without merit; they represent a more comprehensive constituent listing and incidental ingestion of surface water while engaged in recreational activities (e.g., swimming) is a viable consideration (albeit at small volumes). Empirical fish tissue data will underpin the consumption of recreational game species. Use of the tap water RSLs could result in a longer COPC list, the majority of which are not expected to be associated with any appreciable substantive impact on site or risk management decision making. It is just as likely that screening using the NAWQC will also generate a long COPC list with little to no impact on the Risk Characterization (i.e., all detected constituents without a relevant screening criterion will be retained as COPCs). Please revise the screening of surface water data to consider the USEPA Tap Water RSLs, with secondary consideration of NAWQC or NYSDEC criteria, as available.		The HHRA screening and identification of COPCs in surface water now uses EPA RSLs for residential ingestion of groundwater ("tap water") RBSLs, if available. If groundwater RSLs are not available, the NAWQC and NYSDEC criteria are evaluated and selected if the value is human health based. Values and sources of all RBSLs are presented in the BHHRA Work Plan Appendix B Tables B2.1 - B2.9.

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GC - 13	S	--	--	Polychlorinated biphenyl (PCB) data: The current assessment proposes a Total Aroclor basis. The utility of Aroclor-based data across the human and ecological lines of evidence is appreciated; however, the absence of congener-specific data represents a less than precise basis for assessing human exposure and does not provide for an option to assess the dioxin-like congener influence. This latter issue can be an important consideration in the assessment of fish ingestion and nursing infant exposures. In light of the fact that historical data gathering has focused on testing of weathered Aroclors, please add a discussion of the potential influence of dioxin-like PCBs to the Uncertainty Assessment. Should PCBs be determined to be a site-related COC, future analyses of fish tissue may require congener-specific testing.		The uncertainties associated with the lack of PCB congener-specific data is identified as a specific uncertainty that will be evaluated in the BHHRA Uncertainty Analysis (see Section 9.4.1.) It should be noted that Aroclors are not identified as primary COPCs in the screening level HHRA for any media, and are listed as secondary COPCs in groundwater and surface water with maximum SQL exceeding the screening level and low (often 0%) frequency of detection.
GC - 14	S	--	--	Hexavalent chromium: In light of the fact that species-specific data for chromium are not available, please utilize hexavalent chromium screening criteria to support COPC determination. Total chromium-based toxicity criteria may be used to support the Risk Characterization and quantitative point estimates of hazard. Please add to the Uncertainty Assessment a discussion of historical land use and industrial processes along with geochemical conditions to support the current assessment, presuming hexavalent chromium is not present.		The HHRA screening and identification of COPCs includes the use of hexavalent chromium RBSLs as a surrogate for total chromium. However, none of the extensive information regarding facility operational history and use of chemicals includes any known materials or practices that contained hexavalent chromium (see Section 3.1). Additional soil sampling and analysis of chromium composition (i.e., quantification of hexavalent chromium) from near-facility locations will be included in the Biota SAP. Pending these results, and consistent with the recommendations from NYSDEC and USEPA at a teleconference on December 11, 2020, it is anticipated that toxicity information specific to trivalent/total chromium will be used in the BHHRA risk characterization and quantitative estimates of risk (see Section 8.1). Information supporting this decision point will be discussed in the uncertainty assessment (see Section 9.4).
GC - 15	S	--	--	HHRA presentation format: The Work Plan for Baseline Human Health and Ecological Risk Assessment, McCaffrey Street Site (Risk Assessment Work Plan or RAWP) references USEPA's Risk Assessment Guidance for Superfund (RAGS), Part D (2001) and presents some project-specific data in Part D format. Please clarify St. Gobain Performance Plastics' (SGPP) intention to produce all risk assessment (RA)-related tables in RAGS, Part D format.		The BHHRA and BERA will present all data in RAGS D table format (USEPA 2001), as applicable. For example, included in the BHHRA Work Plan are RAGS D Table 2s and Table 4 (Appendix B Tables B1.1 - B1.11 and B4.1 - B4.6).
GC - 16	S	--	--	Exposure parameter values: As part of the baseline condition assessment, please ensure that standard, default USEPA exposure parameter values are incorporated in the reasonable maximum exposure (RME) assessment. The RAWP references appropriate guidance documents, such as USEPA's Exposure Factors Handbook (2011, and updates) and the Child-Specific Exposure Factors Handbook (2008, 2009), but fails to reference OSWER Directive 9200.1-120, Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors (2014 and FAQ updates 2016). Please also consider USEPA's Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (2002), especially when developing occupational or intrusive soil activity- based particulate emissions factors (PEF) and refining the definition of surface soil or the predominant soil horizons assumed related to discrete population activities.	Exposure parameter values: As part of the baseline condition assessment, please ensure that standard, default USEPA exposure parameter values are incorporated in the reasonable maximum exposure (RME) assessment. The RAWP references appropriate guidance documents, such as USEPA's Exposure Factors Handbook (2011, and updates) and the Child Specific Exposure Factors Handbook (2008, 2009), but fails to reference OSWER Directive 9200.1 120, Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors (2014 and FAQ updates 2016). Please also consider USEPA's Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (2002), especially when developing occupational or intrusive soil activity based particulate emissions factors (PEF) and refining the definition of surface soil or the predominant soil horizons assumed related to discrete population activities. Please also see HH 24 and HH 29.	The BHHRA will utilize all USEPA RME exposure parameter values. For clarity, all RME values are now presented in the BHRRA Work Plan Appendix B Tables B4.1 - B4.6.

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GC - 17	S	--	--	Release mechanisms: To the greatest extent practicable, the RA should represent a stand- alone document. The Conceptual Site Model (CSM) outlines primary release mechanisms; however, the RAWP should be expanded to discuss the primary release mechanisms associated with various chemicals classes or suites of compounds, especially in relation to historical practices at the site and available lines of evidence from other sources of data including the air deposition study, private drinking water well data, and other environmental remediation investigations around Hoosick Falls.		Section 3.1 in both the BHHRA and BERA Work Plans describes the chemicals and classes of chemicals used over the operational history of the facility. It also includes a summary of environmental investigations and sampling results. The on-going work for the RI will continue to develop the site-specific releases and characterize the nature and extent of those releases.
GC - 18	S	--	--	Fish tissue data: Please confirm that filet-only data from relevant sport fish species of legal size will be used to assess recreational angler ingestion of fish exposure pathways.		This is confirmed in Section 5.3 of the BERA. Target size ranges of fish will be discussed in the supplemental Biota Sampling and Analysis Plan.
GC - 19	S	--	--	COPC screening, nondetect (ND) results: The sample quantitation limit (SQL) is the preferred metric for use in screening sensitivity levels associated with ND results and defining constituents of potential concern (COPCs). The method detection limit (MDL) is appropriate for use as the proxy value (designated as an ND entry) in development of an upper-bound estimate on the mean using ProUCL, such as a 95-upper confidence limit (95UCL), but the sample-specific SQL is the appropriate metric for use in screening COPCs for further scrutiny. Please revise the decision criteria for COPC screening to reflect this change.		The decision criteria for selection of COPC for the BHHRA and COPECs for the BERA includes the use of the SQL. See BHHRA Work Plan Appendix B Tables B1.1 - B1.11, and BERA Work Plan Section 4.2 and Appendix B Section 1.2.1.
GC - 20	S	--	--	COPC screening, HH and ERA endpoints: Please refine the strategy proposed to define the site COPC list to clarify outcomes pertinent to the HH and ERA assessments. The HHRA and ERA processes will define different COPC lists for further scrutiny. To avoid confusion, clarify the public record, and ensure consistency in the FS, please redefine HH- and ERA-specific constituent designations. Constituents retained for additional evaluation in the context of the Uncertainty Assessment or Risk Characterization within the HHRA should be designated as Constituents of Potential Concern (COPCs). Constituents retained for further evaluation within the context of the ERA should be designated Constituent of Potential Ecological Concern (COPECs). Please see Comment GC-1 requesting that HHRA and BERA be separate in future submittals.		The BHHRA and BERA Work Plans have been separated into two separate documents. As such, the conventional nomenclature has been used. The BHHRA Work Plan currently designates screened in chemicals as contaminants of potential concern (COPCs) and the BERA Work Plan currently designates chemicals as constituents of potential *ecological* concern (COPECs).
GC - 21	S	--	--	COPC screening, availability of RBSLs: All detected constituents lacking a relevant risk-based screening level (RBSL) must remain site COPCs for the purposes of the public record, but do not have to be addressed within the context of the Risk Characterization. Instead these constituents may be listed, with qualifying language, within the context of the Uncertainty Assessment.		COPCs without RBSLs (designated as COPC selection rationale "D" in BHHRA Work Plan Appendix B Tables B1.1 - B1.11) and without appropriate toxicity criteria for assessing risk, will be retained as COPCs and discussed qualitatively in the Uncertainty Assessment.
GC - 22	S	--	--	Frequency of Detection (FOD): Screening based on FOD (<5%) represents a dated methodology (1989 and prior) to refine and focus risk assessment resources on the likely drivers of risk and hazard, but this method pre-dates the ready available of peer- reviewed, health-based screening criteria (e.g., USEPA Regional Screening Levels, RSLs). As such, it represents an inappropriate refinement of the COPC list and should be removed as a consideration. FOD may be a significant consideration as a function of site management decision-making, to aid in focusing additional scrutiny on potential data gaps in nature and extent definition, or in an assessment of overall data quality and suitability; it is a viable metric to help inform pragmatic, site- related decision making, but is an inappropriate refinement technique for COPC designation within the context of the RA process. Please remove FOD as a COPC screening criterion.		The FOD for each analyte is documented in the BHHRA Work Plan Appendix B Tables B1.1 - B1.11 and BERA Work Plan Appendix B Tables B.1-B.4. The FOD will be included in the further evaluation of contaminants of concern (COCs) following risk characterization, to guide risk management decisions and provide context for the potential risk drivers and priority chemicals. See BHHRA Work Plan Section 9.3.1 and BERA Work Plan Appendix B Section 1.2.1 and 1.3.

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GC - 23	S	--	--	Screening in comparison to background: SGPP has proposed a COPC refining methodology predicated on comparison of constituents to background levels. This comparison, whether based on site-specific (preferred) or a regional basis, is a viable method to help focus site management resources on site-related considerations and impact; however, this screening step must not occur prior to the Risk Characterization step such that total risk and hazard are assessed for relevant populations. Consistent with USEPA's Guidance for Comparing Background and Chemical Concentration in Soil at CERCLA Sites (2002), calculated total risk may be refined to present site- and background-related risk estimate components within the context of the Uncertainty Assessment, to help inform site managers. Please refine the COPC screening process to indicate that all COPCs detected above relevant health-based screening criteria (or associated with insufficient analytical sensitivity) will be retained as COPCs and that total risk will be assessed in the context of the Risk Characterization. As noted above, background- related contributions may be assessed within the context of the Uncertainty Assessment. Please refer to comment GC-8 for information on developing "background" concentrations.		FOD and background concentrations will be evaluated after the identification of COCs, to help inform potential site-related risks and priority chemicals. See Section 9.3.1. of the BHHRA Work Plan and Section 1.2.1 of Appendix B of the BERA Work Plan for more details.
GC - 24	S	--	--	Characterization of media needed to evaluate some risk assessment exposure scenarios described in the work plan may have been impacted or hindered by site conditions e.g. soil between 0-10 ft due to a high groundwater table. Please explain whether sufficient data are available to complete these assessments or are additional data necessary.		As described in BHHRA Work Plan (Section 7.3.4) and BERA Work Plan (Section 5.3.2), prior to calculating soil EPCs, exploratory data analysis and statistics will be used to evaluate the distribution, frequency of detection, and potential outliers for COPCs in each exposure unit. This evaluation will help determine where data gaps in the existing database may introduce additional uncertainty.
GC - 25	S	--	--	Primary vs. Secondary COPCs: Please clarify the purpose of defining primary and secondary COPCs. It is understood that constituents identified as Secondary COPCs will go though additional screening steps prior to risk characterization (additional technical review comments on that process here, notwithstanding); however, will the final outcome of any refined results in a final COPC list still present Primary and Secondary designations? Please clarify, if Primary and Secondary designations will be retained within the Risk Characterization, and please clarify any associated implications affecting designation of primary and secondary constituents of concern (COC), pertinent to the FS. In addition, refinement of the COPC list prior to the quantitative portion of the Risk Characterization based on comparison of the mean to the most relevant RBSL should be amended to feature the preferred EPC [e.g., 95-upper confidence limit (UCL) or maximum detected concentration] to the RBSL, rather than the mean.		Consistent with USEPA standard current best practices and guidance, the screening level HHRA did not screen out chemicals even if they were never or infrequently detected, or if they were detected at levels below NYS rural background soil concentrations, which results in a long list of "secondary" COPCs (See BHHRA Table 5). > The screening level assessments will not be applied in a "pass/ fail" approach, but rather, to provide perspective on the multiple lines of evidence that will be evaluated further in the baseline assessments. For example, a chemical that has a low frequency of detection (e.g., 5%) is less likely to be a risk driver than more frequently detected chemicals, however, it is retained in the COPC list pending further evaluation of the spatial patterns and evidence of subareas of elevated concentrations. > Secondary COPCs are retained in the full BHHRA, and when exposure and toxicity data are amenable, risk estimates will be calculated for all secondary COPCs. However, to ensure that risk characterization and related risk management decisions for the McCaffrey Street Site are focused on the primary risk drivers, it is advantageous to continue to flag the COPCs or COCs that are not frequently detected, or that may not be site-related.
Ecological Risk Assessment Comments						
ECO-1	S	6.2	35	Wildlife receptors are defined as species-specific indicator species and include terrestrial birds and mammals. Given that there are also species-specific indicator species for aquatic life, aquatic should be added to the wildlife receptor description.		The BERA Work Plan presents separate CSMs for aquatic and terrestrial receptors. Representative species of birds and mammals are included in both CSMs. Species specific to aquatic systems are also identified (e.g., see Table 7- Representative Receptors - Aquatic and Terrestrial Systems).
ECO-2	E	7.2.1	49	The text indicates "or comparable statistics software that generates the same calculations" Please identify which other statistical software may be used.		Section 5.3.2 is modified as follows: "The ProUCL software developed by USEPA (USEPA, 2015) will be used to calculate 95UCLs and R will be applied to compile ProUCL results. "
ECO-3	E	1.2	2	Please list the Division of Water Technical and Operational Guidance Series 1.1.1. under "New York State Guidance."		TOGS 1.1.1 is listed in Table B5 and Section 2.3.2 of Appendix B.

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ECO-4	S	5.2		All PFAS should remain screened in as Contaminants of Potential Ecological Concern (COPECs) until additional site-specific biota and abiotic media samples are collected and analyzed. For certain abiotic media, more samples are required to determine the concentrations of PFAS present at the site. In addition, bioaccumulation and bioconcentration factors are important variables in calculating ecological screening levels for PFAS, and it is preferable to use site-specific data to provide a more reliable estimate of these values.		Table 4 shows that all PFAS screen in as either primary (PFOA, PFOS) or secondary COPECs.
ECO-5	S	5.3		While bioaccumulation and bioconcentration factors gathered from the literature are valuable, BCFs calculated from site- specific data are preferred. PFAS BCFs from site-specific biota and media should be calculated and incorporated into the BERA. Please specify this in the work plan. It is understood that an additional work plan for collection of supplemental abiotic media and biota samples is pending, so specifics on sampling methods are not required here.		Site-specific estimates of bioaccumulation will be calculated with data collected from the field program planned for 2021. Section 5.1 has been updated to include a paragraph that refers to the Biota SAP Work Plan and objective of deriving site-specific estimates of bioaccumulation.
ECO-6	S	5.4.1		In addition to supplemental sediment and biota sampling, additional sampling of surface water is also needed. Currently, three locations in the Hoosick River have been sampled, and one location has been sampled in the wetland south of the site. Samples from the wetland location (SW03) in particular contain some of the highest surface water concentrations for PFAS. Please include surface water sampling in the supplemental sampling plan, including additional sampling in the wetland and at least two additional sampling locations in the Hoosick River between SW01 and SW04.		The Biota Sampling and Analysis Plan will include at least six sample stations in the Hoosic River.
ECO-7	S	6.2.1		Please consider adding additional forage fish species to better represent species present in the Hoosick River. Adding both Creek Chub and Blacknose Dace is recommended. The two aquatic mammals chosen, American Mink and River Otter, occupy similar niches. It would be beneficial to include an aquatic mammal species, either in addition to these two species or instead of the River Otter, that expands the niche occupied by aquatic mammals in this risk assessment. Please include an additional species; muskrat is recommended due to its predominantly plant-based diet.		Section 5.2.1 is updated to include a discussion of additional receptors. Creek chub and Blacknose Darter will be further considered in the BERA if primary COPECs have sufficient data to evaluate dose-based TRVs for fish. Muskrat has been added and Otter has been removed.
ECO-8	S	6.2.2	39	The northern short-tailed shrew is listed as terrestrial, but with its use of aquatic habitat and diet consisting primarily of aquatic invertebrates, it may also be listed as aquatic. If possible, it is suggested to categorize it as both. Regardless of categorization, in Figure 6B, ingestion of aquatic invertebrates is denoted as a potentially complete but insignificant pathway. Please clarify or correct this.		The aquatic ecosystem CSM is updated to include the northern short-tailed shrew.
ECO-9	S	7.2		Please describe how data from biota sampling will be included in the BERA, and also include this information in Table 10.	No reply from DEC	Version 1 Table 10 is now Table 3. See response to ECO-5.
ECO-10	S	Figures		Please expand the area covered in these figures to meet the requirements outlined in Step I A of Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (NYSDEC, 1994).		FWIA (1994) refers to a 2 mile radius from a facility. See Appendix B, Figure B-1 and associated discussion in Section 2 of Appendix B.

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ECO-11	S	Tables 6		Please include a footnote stating that sediment samples were only analyzed for PFAS and indicate the PFAS analyzed.		Footnote 3 was added to the table (now Table 4). Note that the Biota SAP Work Plan will identify additional sediment sampling locations and an expanded target analyte list for sediments.
ECO-12	S	Tables B4.1- 17		Please provide full citations for all references cited in these tables. Many are not referenced in the References section. Please correct the reported diets of the following species, which are inconsistent with the diets reported in Section 6.2.1: American Mink, Belted Kingfisher, Great Blue Heron In table B4.1, please confirm the reported average body weight of pumpkinseed, which appears to be low, and update the calculated food ingestion rate with any changes to body weight.		Diet values were displaying incorrect (too few) significant digits - this has been corrected in revised tables (now Table 9 series in the main text). The average BW for pumpkinseed has been updated. Full citations are provided in the reference list and/or in the footnotes of the tables where cited.
ECO-13	S			Threatened and Endangered Species: Both the NYSDEC (1994) Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA) guidance and EPA Ecological Risk Assessment (ERA) guidance documents require that effects for threatened and endangered species be evaluated at the individual/organism level. The American bald eagle is listed as threatened on the New York Endangered and Threatened Species List. Please provide discussion within the risk analysis/risk characterization of the effects evaluation at the individual/organism level for this species.	Threatened and Endangered Species: Both the NYSDEC (1994) Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA) guidance and EPA Ecological Risk Assessment (ERA) guidance documents require that effects for threatened and endangered species be evaluated at the individual/organism level, by using the No Observed Adverse Effect Level (NOAEL) TRV when calculating hazard quotients to determine potential risk. The American bald eagle is listed as threatened on the New York Endangered and Threatened Species List. Please provide discussion within the risk analysis/risk characterization of the effects evaluation at the individual/organism level for this species.	Appendix B notes that the bald eagle is listed in NY as threatened (see Section 2.1). Both NOAEL and LOAEL-based risks will be presented in the BERA. A probabilistic risk approach is preferred over the NOAEL/LOAEL approach to quantify the likelihood and magnitude of effects (see Section 5.5.1).
Human Health Risk Assessment Comments						
HH-1	E	3.1	9	Second paragraph, first sentence; delete “and groundwater” from the sentence		Corrected.
HH-2	S	4.1	12	Last paragraph, last sentance; text states that analytical chemistry results for samples of fish tissue (fillets and whole-body) collected from the Hoosick River watershed are available, however “these data are not part of the Site RI”. It is unclear why this data is not being used, please clarify. NYSDEC and EPA prefer using actual fish tissue analytical data over modeled data when quantifying risks from potential fish ingestion.		These fish tissue data ARE being used for the BHHRA and BERA, despite not being part of the Site RI. The sentence has been clarified. Importantly, the RI database is supplemented with both NYSDEC fish tissue data and supplemental biota data that will be collected as described in the Biota Sampling and Analysis Plan (February 2021) (see BERA Workplan Section 5.3).
HH-3	S	4.2	13	Last paragraph: When calculating EPCs for use in the HHRA, please be sure to run ProUCL with data sets that include non-detects.		Per USEPA standard protocol and guidance, datasets used for calculating 95 UCLs for the EPCs will include NDs.
HH-4	S	5.2	15	Last paragraph: Data sets with non-detects should be treated as such in ProUCL.		See response to HH-3.
HH-5	S	5.2	16	EPA does not screen chemicals out of the COPC screen (RAGS D table 2 analysis) if they are less than the state background. Please screen all analytes against the applicable screening values. If screening values are exceeded the chemical will need to be retained for the quantitative portion of the HHRA. Then a discussion about onsite concentrations as compared with background should be included in the risk characterization and/or uncertainty section of the HHRA. Please see comment GC-8 for additional guidance to establish "background" concentrations.		See RTC above. In the Appendix B Tables B1.1 - B1.11 (i.e., RAGS D Table 2s) NYSDEC background values are listed and analytes for which the maximum detection is lower than the state's background values are flagged. However, these compounds are not screened out based on background. The evaluation of background will be conducted after risk characterization for further evaluation of COCs (see Section 9.3.1).
HH-6	E	5.5.1	24	a. 3rd lead paragraph: for residential use please screen lead against 200 ppm. (Please see comment HH-25 for more detail about the rationale). b.#3 below Soil and Sediment subheading: please exclude these sources from the risked based screening hierarchy as only NYS and EPA values should be used.		The screening levels for lead in soil are updated to reflect this request. See Appendix B Tables B2.1 - B2.4, and COPC screening in Appendix B Tables B1.1 - B1.11.

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HH-7	E	5.5.1	25	#3 below the Groundwater subheading: please delete; do not use values other than those derived by NYS DEC or EPA.		The BHHRA COPC identification process only includes RBSLs from USEPA or NYSDEC.
HH-8a	E	Table C-2.1		a. For screening of Alocors, please use the Aroclor 1016 RfD for all chemicals with a percent of chlorine less than 42% (i.e., Aroclor 1016, 1221, 1232 & 1242). For the more highly chlorinated recolors with chlorine content of 43% or greater (i.e., Aroclor 1248, 1254, 1260, 1262 & 1268) please use the Aroclor 1254 RfD. Please be sure to apply this change to the recolor screening values across all media.		The Aroclor 1061 RBSL is used for Aroclor 1016, 1221, 1232 and 1242 and the Aroclor 1254 RBSLs are used for Aroclor 1248, 1254, 1260, 1262 and 1268. "Total PCBs" is retained. Please note that Aroclors only screen in as secondary COPCs for groundwater and surface water, and only Aroclor 1260 one time, in one location. However, the SQLs are higher than the screening levels. This will be addressed in the BHHRA uncertainty analysis.
HH-8b	E	Table C-2.1		b. For overall clarity and transparency, please include the RSL output files for the calculated PFAS screening values.		Per comment HH-7, and as clarified during the December 11, 2021 teleconference, it was requested that only RBSLs from USEPA or NYSDEC sources were to be used in the HHRA screen. Therefore, no PFAS screening values are calculated. In the BHRRA, if appropriate toxicity information is available, those values, full equations, and exposure parameter values will be clearly documented.
HH-9	S	5.5.1	26	Surface water analytical data should be screened against tap water RSLs based on a HQ= 0.1 or a TLCR of 10-6. In the absence if these values, the surface water EPA and NYS values can be used.		The hierarchy of sources for selection of RBSL for surface water is switched. See response to GC-12.
HH-10a	S	5.5.3	27	Polychlorinated biphenyl (PCB) data: The current assessment proposes a Total Aroclor basis. The utility of Aroclor-based data across the human and ecological lines of evidence is appreciated; however, the absence of congener-specific data represents a less than precise basis for assessing human exposure and does not provide for an option to assess the dioxin-like congener influence. This latter issue can be an important consideration in the assessment of fish ingestion and nursing infant exposures. In light of the fact that historical data gathering has focused on testing of weathered Aroclors, please add a discussion of the potential influence of dioxin-like PCBs to the Uncertainty Assessment. Please also note that future analyses of fish tissue may require congener-specific testing. For screening of recolors please use the Aroclor 1016 RfD for all chemicals with a percent of chlorine less than 42% (i.e., 1016, 1221, 1232 & 1242). For the more highly chlorinated recolors with chlorine content of 43% or greater (i.e.,1248, 1254, 1260, 1262 & 1268) please use the Aroclor 1254 RfD. Please be sure to apply this change to the recolor screening values across all media.		The Aroclor 1061 RBSL is used for Aroclor 1016, 1221, 1232 and 1242 and the Aroclor 1254 RBSLs are used for Aroclor 1248, 1254, 1260, 1262 and 1268. "Total PCBs" is retained. Please note that Aroclors only screen in as secondary COPCs for groundwater and surface water, and only Aroclor 1260 one time, in one location. However, the SQLs are higher than the screening levels. This will be addressed in the BHHRA uncertainty analysis.
HH-10b	E	5.5.3	27	b. Chlordane, last sentence: the EPA RSL for tap water should have been used as the RBSL for surface water.		See response to GC-12. The hierarchy is updated.
HH-10c	S	5.5.3	27	c. Chromium: in the absence of speciation data, EPA generally recommends that Cr+6 tox values be used for risk quantification of total chromium. Since there is no historical records or practices that indicate that Cr+6 was ever used or produced, EPA understands the rationale behind the assumption used. However, for overall completeness, please use Cr+6 tox values for risk quantification and discussion the results in the uncertainty section of the HHRA.		See response to GC-14.
HH-10d	E	5.5.3	28	d. Dichloropropene, 1-3-, last sentence: please use the tap water RSL as a surrogate screening value for surface water.		See response to GC-12. The hierarchy is updated.
HH-10e	E	5.5.3	28	e. Phenanthrene, last sentence: please use the tap water RSL as a surrogate screening value for surface water		See response to GC-12. The hierarchy is updated.

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HH-11a	S	5.5.4.2	30	a. For screening and subsequent risk calculation of PFAS other than PFOA PFOS and PFBS (i.e., PFAS without EPA Tier I and II tox values) please be sure to provide the rationale for the Tier III tox value selected. Also please discuss the resultant risk calculation and quantitative results in the uncertainty section of the HHRA and not in the risk characterization section.		As described in the BHHRA Work Plan, Section 8.1, the detailed rationale for selection of PFAS toxicity criteria follows USEPA policy and guidance and will be presented in the BHHRA. Note that toxicity information and regulatory decisions related to PFAS are rapidly evolving. Prior to conducting the final risk calculations, GSI will determine if additional appropriate toxicity criteria have become available for any PFAS COPCs and will finalize the toxicity criteria based on the most current available information. The variability between and uncertainty within the selection of toxicity values for PFAS will be further explored and described for the PFAS COPCs in the BHHRA risk characterization and uncertainty sections.
HH-11b	E	5.5.4.2	30	b. First bulleted list- (List of published regulatory RBSLs) please take out the last two bullets as they are not appropriate to use at this site since they are not EPA or NYS derived screening values. NYS draft regulations containing SCOS and relevant supporting data are anticipated to be released for comment in time to incorporate into the work plan and be used as screening values.		Only USEPA and NYSDEC RBSLs are used as sources for all analytes in all media.
HH-12	E	5.5.4.2	31	Top two bullets on Page 31- please exclude these two bullets as they are not appropriate to use at the site.		Only USEPA and NYSDEC RBSLs are used as sources for all analytes in all media.
HH-13	E	5.5.5	32	Third bullet in the first bulleted list in section 5.5.5- please take this criterion out as EPA does not screen out chemicals from the quantitative risk assessment if they are below background levels. This evaluation (comparing site concentrations to those in site specific background levels) is done after the quantitative portion of the risk assessment is completed and discussed in the uncertainty/risk characterization section of the HHRA.		The BERA and BHHRA Work Plans reference NYSDEC background data sets and use those existing data to evaluate concentrations of analytes within the Project Area. Neither risk assessment will eliminate COPCs based on background levels, however, COPCs and COPECs will be compared to NYSDEC background levels to provide context and more detailed information to inform risk characterization results. FOD and background concentrations will be evaluated after the identification of COCs, to help inform potential site-related risks and priority chemicals. See Section 9.3.1. of the BHHRA Work Plan for more details.
HH-14	E	5.5.5	33	first bullet in the second set of bullets: please take background concentrations out of the screening step of the HHRA		See response to HH-13.
HH-15	E	6.3	41	please correct the figure reference to Figure 5		Corrected
HH-16	E	5.5.1	25	The first full paragraph on this page uses the word “protective” incorrectly in reference to construction worker exposures and should be replaced with “relevant to” or “predictive of.”		Sentence corrected (now found in Section 5.3.1).
HH-17	E	6.3.1	41	For the first 5 bullets please add “current/future”. Please make this change in Table 9 and the subsequent receptor section subheadings as well.		These edits are made throughout.
HH-18	E	Table 9		Please add “on-site” to the commercial worker and consider switching the off-site recreator age bracket to 0-6yo.		"On-site" is added to the commercial worker description. The off-site recreator includes all age brackets (see BHHRA Work Plan Table 6), young child, older child, and adult.
HH-19		6.3.1	45	Recreational User on the Hoosick River and Hoosick River Greenway subheading, last paragraph: first sentence indicates that the recreator will be evaluated for angling activities. Since swimming is likely in the Hoosick River, and it is a more conservative exposure pathway than angling (for direct contact with surface water and sediments), it should be evaluated in the HHRA. Further, a child recreator should be evaluated as its possible that this group age may visit the River with parents.		The "Recreator" scenario includes both a wader and an angler scenario and includes young children, older children and adult. See BHHRA Work Plan Table 6.

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HH-20	S	8.2	57	Please do not prematurely exclude any COPCs based on background level comparisons. Any chemical that exceeds the relevant conservative risk-based screening level will need to be retained for the quantitative portion of the HHRA. A discussion of on-site concentrations as compared with background should be included in the risk characterization and/or uncertainty section of the HHRA.		The BERA and BHHRA Work Plans reference NYSDEC background data sets and use those existing data to evaluate concentrations of analytes within the Project Area. Neither risk assessment will eliminate COPCs based on background levels, however, as discussed in the BHHRA Work Plan Section 9.3.1. and BERA Work Plan SLERA (Appendix B, Section 1.2.1), COPCs and COPECs will be compared to NYSDEC background levels to provide context and more detailed information to inform risk characterization results. FOD and background concentrations will be evaluated after the identification of COCs, to help inform potential site-related risks and priority chemicals. See Section 9.3.1. of the BHHRA Work Plan for more details.
HH-21	S	8.3.2.2	61	For quantification of risk from inhalation while showering/bathing, please use the Andelman Shower Model as modified by Schaum et. al. (1994). Please be sure to include the pertinent equations and input parameters in the text of the HHRA. The more conservative parameters as identified in the 1994 document should be used for risk quantification.		The Andelman and Schaum Shower Model is added to the BHHRA Work Plan exposure pathways discussion, section 7.3.2.2. and is shown in Appendix B Tables B4.1 - B4.7.
HH-22	S	8.3.2.3	62	Where available, NYSDEC and EPA prefers analytical fish tissue data over modeled concentrations. Please clarify what data will be used for risk quantification from the fish ingestion pathway. The work plan should reference the data that are going to be incorporated. If the data are determined not to be sufficient NYSDEC and EPA will provide input regarding an appropriate tissue sampling program.		Both fillet and whole body data will be collected, as discussed in BERA Work Plan Section 5.3.
HH-23	S	8.3.3	63	When calculating EPCs please be sure to run ProUCL with non-detected data.		Per USEPA standard protocol and guidance, datasets used for calculating 95 UCLs for the EPCs will include NDs.
HH-24	S	8.3.4	64	For RME estimates, please be sure to use currently recommended EPA exposure parameters.	For RME estimates, please be sure to use currently recommended EPA exposure parameters.	The BHHRA will utilize all USEPA RME exposure parameter values. For clarity, all RME values are now presented in the BHRRA Work Plan Appendix B Tables B5.1 - B5.7.
HH-25	S	8.4.4	66	As provided in EPA Office of Land and Emergency Management (OLEM, previously OSWER until December 2015) Directive 9200.2-167, recent toxicological studies on lead suggest that adverse health effects are associated with mean BLLs (blood lead levels) less than 10µg/dL in children. In response to the directive, the Region has developed a tiered approach when evaluating the potential extent of lead contaminated soil requiring a remedial action. The strategy is based on an updated regional risk reduction goal which is to limit the probability of a child's (or that of a group of similarly exposed individual's) BLL exceeding 5µg/dL to 5% or less. Please use 5 ug/dL for the IEUBK and ALM model estimates. For the initial screen please use NYS SCOs 400 ppm for residential exposure and 1,000 ppm for commercial exposures.	As provided in EPA Office of Land and Emergency Management (OLEM, previously OSWER until December 2015) Directive 9200.2 167, recent toxicological studies on lead suggest that adverse health effects are associated with mean BLLs (blood lead levels) less than 10µg/dL in children. In response to the directive, the Region has developed a tiered approach when evaluating the potential extent of lead contaminated soil requiring a remedial action. The strategy is based on an updated regional risk reduction goal which is to limit the probability of a child's (or that of a group of similarly exposed individual's) BLL exceeding 5µg/dL to 5% or less. Please use 5 ug/dL for the IEUBK and ALM model estimates. For the initial screen please use values of 200 ppm for residential exposure and 400 ppm for commercial exposures where children are reliably restricted. These screening values do not reflect remediation targets.	The screening levels for lead in soil are changed to reflect this request. See Appendix B Tables B2.1 - B2.4, and COPC screening in Appendix B Tables B1.1 - B1.11.
HH-26	E	8.5.3	69	Text references BERA when it should reference the HHRA, please confirm and correct as necessary.		This has been corrected.

GSI ENVIRONMENTAL

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HH-27	S	Table 3.1	109	Footnotes to table 3.1 (p 109) indicate references to the statewide sampling undertaken in support of DEC's initial soil cleanup objectives, specifically involving 118 rural samples collected away from obvious sources across the state, and another 28 samples collected from a subset of those sites, but adjacent to roadways/driveways. Although the sampling interval (depth) for all 146 of these samples was comparable (by the sampling protocol), these were collected as, and should be analyzed as, data reflecting two distinct kinds of locations. The smaller of these was intended to reflect potential anthropogenic inputs related to the construction and use of roads/driveways. Given our understanding of the nature of incidental soil ingestion, there is no reasonable case to be made that would call for merging these locations across location types to yield an "average" for the parcel, much less to merge the 28 and 118 samples together for some kind of statistical evaluation. Please revise the work plan accordingly.	Footnotes to table 3.1 (p 109) indicate references to the statewide sampling undertaken in support of DEC's initial soil cleanup objectives, specifically involving 118 rural samples collected away from obvious sources across the state, and another 28 samples collected from a subset of those sites, but adjacent to roadways/driveways. Although the sampling interval (depth) for all 146 of these samples was comparable (by the sampling protocol), these were collected as, and should be analyzed as, data reflecting two distinct kinds of locations. The smaller of these was intended to reflect potential anthropogenic inputs related to the construction and use of roads/driveways. DEC does not agree that these datasets may be merged to yield "average values." Should SGPP wish to consider these datasets in a review of naturally occurring or anthropogenic background conditions in soil, a defensible set of decision criteria should be presented to support statistical comparisons to site datasets. It is DEC's understanding that any constituent detected above its most relevant health based screening criterion will not be eliminated from consideration prior to assessment in the Risk Characterization component the HHRA, but that consideration for background conditions will be assessed within the context of the Uncertainty Analysis in support of risk management decision making.	The BERA and BHHRA Work Plans reference NYSDEC background data sets and use those existing data to evaluate concentrations of analytes within the Project Area. Background concentrations will be evaluated after the identification of COCs, to help inform potential site-related risks and priority chemicals. In the BHHRA, to determine which NYSDEC background value is appropriate for comparison, each EU will be mapped relative to potential pollution sources (identified by NYSDEC as "trash, roads, driveways or structures" (NYSDEC & NYSDOH, 2006). 'Source distant' values from Table 6a will be used to assess samples obtained from areas considered to be reasonable points of human contact with soil, such as yards and trails (but at least 15 feet away from potential pollution sources), and 'near source' soil samples collected near roadways and/or driveways will be compared to Table 6c. See Section 9.3.1. of the BHHRA Work Plan.
HH-28	S	Table C3 in Appendix C		Table C3 in Appendix C of the workplan lists multiple toxicity values for per- and polyfluoro- alkyl substances (PFAS) from which the work plan indicates a choice of a single value for each chemical that will be used to screen and evaluate health risks in the baseline human health risk assessment (HRA). For perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), which are anticipated to be key chemicals of concern, the table indicates the choice of the reference doses derived by the United States Environmental Protection Agency (US EPA) in 2016 (20 ng/kg/day for both (US EPA 2016a,b)) based solely on the US EPA's recommendation. This ignores a significant amount of risk assessment expertise from authoritative bodies that considers PFOA and PFOS to be more toxic than indicated by these PFOA and PFOS reference doses. In light of this, the work plan should acknowledge the scientifically defensible results of evaluations done by other respected authoritative bodies, and discuss the impact of using more conservative toxicity values for PFOA, PFOS and other PFAS on the quantitative indicators of noncancer risk in the uncertainty section of the document. In addition, the choice of a single noncancer toxicity value and no cancer toxicity value (i.e., a cancer potency factor) to evaluate risks also ignores significant toxicological evidence from three separate rodent studies for the carcinogenicity of PFOA (Biegel et al. 2001; Butenhoff et al. 2012, NTP 2020), and the fact that estimates of cancer potency have been derived by authoritative bodies for both PFOA and PFOS (US EPA 2016a, NJ DEP 2019a,b, CA EPA 2019). The HRA should evaluate the PFOA and PFOS based on cancer as well as noncancer endpoints.		Per recommends from NYSDEC and USEPA above, only USEPA and NYSDEC sources of RBSLs are used for the human health COPC identification. Any contaminant without a RBSL is carried forward as a secondary COPC and a detailed toxicity evaluation will be conducted as part of the risk characterization. As described in the BHHRA Work Plan, Section 8.1, the detailed rationale for selection of PFAS toxicity criteria will follow USEPA policy and guidance and will be presented in the BHHRA. Note that toxicity information and regulatory decisions related to PFAS are rapidly evolving. Prior to conducting the final risk calculations, GSI will determine if additional appropriate toxicity criteria have become available for any PFAS COPCs and will finalize the toxicity criteria based on the most current available information. The variability between and uncertainty within the selection of toxicity values for PFAS will be further explored and described for the PFAS COPCs in the BHHRA risk characterization and uncertainty sections. As described in Section 9.4.2, the BHHRA Uncertainty Analysis will also evaluate the impact on risk estimates based on a range of available toxicity criteria.

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HH-29	S	8.3.4	64	Several of the exposure parameter values defined in NYSDEC guidance are markedly lower than those commonly recommended by USEPA. For example, the incidental soil ingestion rates for a residential adult and child are given as 17 and 74 mg/day versus EPA values of 100 and 200 mg/day and 8.5 mg/day for an occupational worker (NYSDEC) versus the EPA default of 50 mg/day for an indoor worker, 100 mg/day for an outdoor worker, and 330 mg/day for a construction worker. At the outset of the RAWP, in Section 1.1, SGPP indicates the risk assessment (RA) will be conducted in concert with EPA protocols and procedures. Standard default exposure parameter values supported by USEPA should be used in the assessment of reasonable maximum exposures (RME). NYSDEC intake parameter values, or other relevant values reflective of average exposures, should be used to support central tendency exposures (CTE).	Several of the exposure parameter values defined in NYSDEC guidance are lower than those commonly recommended by USEPA, based on state specific environmental factors and time weighted averaging (e.g., snow cover). For example, the incidental soil ingestion rates for a residential adult and child are given as 17 and 74 mg/day versus EPA values of 100 and 200 mg/day and 8.5 mg/day for an occupational worker (NYSDEC) versus the EPA default of 50 mg/day for an indoor worker, 100 mg/day for an outdoor worker, and 330 mg/day for a construction worker. At the outset of the RAWP, in Section 1.1, SGPP indicates the risk assessment (RA) will be conducted in concert with EPA protocols and procedures. Standard default exposure parameter values supported by USEPA should be used in the assessment of reasonable maximum exposures (RME). NYSDEC intake parameter values, or other relevant values reflective of average exposures, should be used to support central tendency exposures (CTE). In the case of CTE assessment, please review the bases for all DEC parameter values to ensure they reflect, and are applicable for use in assessing, conditions at the site.	As discussed in more detail on the December 11, 2020 teleconference, NYSDEC values are used in the BHHRA as central tendency values. As discussed in more detail in BHHRA Work Plan Section 7.3.3, GSI conducted an in-depth evaluation of the NYSDEC and NYSDOH exposure parameter values. The soil and dust ingestion rates selected by NYSDEC and NYSDOH (2006) are largely based on summaries from USEPA's 1997 Exposure Factors Handbook and 2002 Supplemental Soil Screening Guidance (USEPA, 1997; 2002). Appendix B Table B.5 provides a detailed summary of NYSDEC's assumptions about these two aspects of exposure frequency for each scenario, the age-specific soil and dust ingestion rates these apply to, and the final time weighted average soil and dust ingestion rate. The footnotes of Appendix B Table B.5 show the equations that NYSDEC used, which are described in the text of the guidance document, but not presented as equations. USEPA has twice updated the recommended CTE and RME values for soil and dust ingestion rate. See Appendix B Table B.6 for a side-by-side presentation of both updates (USEPA 2011; 2017) along with the values selected by NYSDEC and NYSDOH (2006) for the CTE. The last columns in the table show the CTE and RME values selected for use in the BHHRA.
HH-30	S	8.3	58	Please update the first bulleted list presented of receptor populations to be consistent with the comments contained herein, Section 6.3.1, and discriminate between current and future potential populations. In the second bulleted list, please update the complete exposure pathways to include construction worker direct contact with groundwater and inhalation of VOCs under trenching activities, and residential adult and child ingestion of homegrown fruits and vegetables and farm-raised chickens and eggs.	Please update the first bulleted list of receptor populations to be consistent with the comments contained herein, Section 6.3.1, and discriminate between current and future potential populations. In the second bulleted list, please update the complete exposure pathways to include construction worker direct contact with groundwater and inhalation of VOCs under trenching activities. In addition, please prepare a semi quantitative assessment of residential adult and child ingestion of homegrown fruits and vegetables and relevant farm raised livestock (e.g., chickens and eggs) related to loading of surface soil as a function of historical stack emissions. These pathways, implications for risk management, and associated data gaps should be addressed within the Risk Characterization and Uncertainty Analysis components of the HHRA.	The preliminary CSM and exposure assessment methods are now combined in the BHHRA Work Plan Section 7 for clarity. All receptors are considered current and hypothetical future and titles have been updated (see list under Section 7.1.1). Complete exposure pathways listed in Section 7.1.1 are inclusive of all receptors and do include direct contact with groundwater and inhalation of VOCs. The potential exposure to construction workers under trenching activities (direct contact with GW and inhalation of VOCs) has been added as an exposure pathway in Section 7.3. The BHHRA will attempt to evaluate the potential risk from residential ingestion of homegrown produce and chicken and eggs. See discussion in Section 7.3.
HH-31	S	5.5.1	24	Hierarchy and Sources of Screening Levels- The second paragraph of this section indicates that RBSLs for child scenarios are lower than (and therefore protective of) adults. This statement is incorrect and should be removed. Generally, hazard-based residential land use RBLS predicated on child exposures are lower (i.e., more stringent) than those associated with adult exposures, chiefly based on body weight:intake ratios; however, risk-based (carcinogen-based) RBSLs will be lower (i.e., more stringent) for age-adjusted exposures reflected in the adult condition (mutagenic mode of action,		The sentence is removed.
HH-32a	S	5.5.2	26	a.This section should be expanded to discuss the decision criteria or approach to assessment of conditions where other confounding sources may exist or conditions where there is an inconsistency evident in screening along a defined fate and transport pathway (i.e., detection in groundwater, ND in subslab soil gas, and exceedance in indoor air for the same constituent).		The VI screening process takes a conservative approach to include as many potential COPCs as possible (see Section 5.3.1). These additional criteria are specifically added to the Weight-of-evidence Risk Characterization for VI, in Section 9.3.2.
HH-32b	S	5.5.2	26	b. This section should specifically clarify that the Uncertainty Section of the RA will address those constituents lacking a VISL but associated with a dimensionless Henry's Law constant above 1E-05 atm m3 mol-1 or vapor pressure > 1mmHg (including PFAS constituents).		The initial VI screening process specifically references the Section 9.3.2. discussion on how risk will be characterized for VI. Section 9.3.2 has been expanded to specifically mention the concern for data gaps and lack of VISLs for potential SVOCs.

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HH-33a	S	6.3 and Figure 5		The Exposure Assessment and Conceptual Site Model (Figure 5) should be refined to better discriminate between current and future potential populations. Bullet point entries in Figure 5 should be revised to reflect designations of C/F to reflect current and future relevancy.		Text in Section 7 is revised to clarify that all receptors will be evaluated under current and hypothetical future scenarios. The only receptor exposure scenario for which this has any impact is on the residential exposure scenario to soil. Future residential soil exposures may include a deeper soil depth profile for consideration that deeper soils (up to 10ft bgs) may be unearthed during the construction of a home. However, prior to calculating EPCs for soil, soil depth profiles will be evaluated.
HH-33b	S	6.3 and Figure 5		Onsite Future Resident, Adult and Child: The assessment basis for direct contact with soil of these future potential adult and child populations should be revised to consider two discrete EPC bases, based on PFAS propensity to solubilize and leach and in consideration of future soil disturbance through regarding and mixing: 1) surface soil-only, and 2) total soil, reflective of surface soil and subsurface soil (0-10 ft bs).		Section 7.1.1. text for hypothetical future residents on Site considers both exposures to surface soil and surface and subsurface soil combined. Section 7.3.4, section on calculating EPCs, states that exploratory data analysis and statistics will be used to evaluate the distribution, frequency of detection, and potential outliers, for constituents in soil horizontally across the Project Area, and also vertically across depth profiles for a given sample location. The HHRA will include a one-page tabular and graphical summary of the properties of the dataset for each analyte/EU combination. These properties will guide the calculation of the EPC. This may include consideration of different depth profiles for a given receptor.
HH-33c	S	6.3 and Figure 5		Offsite Resident, Adult and Child: Under the current land use designation, the direct contact-based EPC for soil should be based on the surface soil-only dataset. Under the future land use designation, the direct contact-based EPC for soil should be based on the total soil dataset (surface soil + subsurface soil, 0-10 ft bgs).		Section 7.1.1. text for hypothetical future residents off Site considers both exposures to surface soil and surface and subsurface soil combined. Section 7.3.4, section on calculating EPCs, states that exploratory data analysis and statistics will be used to evaluate the distribution, frequency of detection, and potential outliers, for constituents in soil horizontally across the Project Area, and also vertically across depth profiles for a given sample location. The HHRA will include a one-page tabular and graphical summary of the properties of the dataset for each analyte/EU combination. These properties will guide the calculation of the EPC. This may include consideration of different depth profiles for a given receptor.
HH-33d	S	6.3 and Figure 5		The individual population discussion that follows in Section 6 should be revised to clearly indicate that ambient air is influenced by not only particulate emissions based on suspension of surface soil as dust, but also volatile organic compounds (VOCs) based on volatilization		The potential exposure to VOCs in ambient air on- site is added. The potential for this pathway to be of any significance off-site is extremely low given concentrations of VOCs in groundwater, depth to groundwater, and immediate dispersion of any VOCs in the air.
HH-33e	S	6.3 and Figure 5		Please clarify that, under future potential groundwater use by onsite residents, exposures and complete exposure pathways reflect the spectrum of domestic drinking water usage, to include ingestion, bathing, cooking, and cleaning. Please add relevant exposure/intake equations and exposure parameter values to the body of the RAWP (e.g., Andelman Shower Model and Schaum 1994 amendments).		All exposure equations and exposure parameter values are included in the BHHRA Work Plan (section 7.3 and Appendix B Tables B4.1 - 4.7, respectively.) The Andelman and Schuam shower model and the construction worker trench models are included.
HH-33f	S	6.3 and Figure 5		For construction workers, please clarify that the soil direct contact-based EPC will reflect one combined dataset, reflective of total soil (surface + subsurface soil) data.		Section 7.1.1. text for construction workers considers exposures to surface and subsurface soils. Section 7.3.4, section on calculating EPCs, states that exploratory data analysis and statistics will be used to evaluate the distribution, frequency of detection, and potential outliers, for constituents in soil horizontally across the Project Area, and also vertically across depth profiles for a given sample location. The HHRA will include a one-page tabular and graphical summary of the properties of the dataset for each analyte/EU combination. These properties will guide the calculation of the EPC.

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HH-33g	S	6.3 and Figure 5		The construction worker discussion eliminates direct contact with groundwater based on the understanding that groundwater on site ranges below 15 ft bgs. Section 2.2 indicates that depth to shallow, perched groundwater is as shallow as 0.8 ft bgs within the tax parcel and 1.6 ft bgs within the broader Project Area. In light of this, please revisit characterization of construction worker exposures to address trenching activities to 10 ft bgs and direct contact with shallow groundwater, inclusive of inhalation of volatile emissions from groundwater and soil under trenching activities. In such assessment, it is suggested that SGPP follow guidance outlined by the State of Virginia Department of Environmental Quality (Voluntary Remediation Program – Risk Assessment Guidance). Please add relevant intake models and exposure parameter values to the body of the RAWP.		Construction worker direct contact with groundwater will be evaluated using the VDEP Trench Model for locations with groundwater less than 15 feet bgs. The Trench Model takes into account direct contact with and incidental ingestion of groundwater, subsurface and surface soils, and ambient air (inhalation of VOCs and soil). All intake equations and exposure parameters values are added to the BHHRA Work Plan, sections 7.3 and Appendix B Tables B4.1 - B4.7.
HH-33h	S	6.3 and Figure 5		Please utilize USEPA's Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (2002), especially when developing occupational or intrusive soil activity-based particulate emissions factors (PEF).		USEPA 2002 Supplemental Guidance for SSLs is added to our reference list in Section 1.2. This guidance is used to guide selection of applicable exposure parameter values.
HH-33i	S	6.3 and Figure 5		Recreational users are pertinent in an assessment of the site and site-related impact. Although this population is addressed in Section 6.3.1 and in Figure 5, it is not listed in the initial bulleted list of receptors in Section 6.3.1 (page 41).		Recreators are included in the bulleted list of receptors in the BHHRA Work Plan Section 7.1.1.
HH-34	S	6.3.2	45	Please adjust the fifth bulleted entry from Adult recreator and trespasser to Adult and child recreator and resident. It is likely that local recreators and residents comprise the same population and are a preferred basis for risk and site management decision making to an aggregated risk including trespassers. This assessment basis should address on- and offsite current and future potential residents.		The last bullet, now found in Section 7.2, includes adult and child recreator and on-site or off-site current or future residents.
HH-35	S	8.4.5	66	The carcinogenic PAHs should not be screened individually. All detected compounds should be retained, reduced to one benzo(a)pyrene- equivalent (BaPeqv) concentration and this data point should be the screening basis for COPC designation as a class and the basis for calculating associated quantitative point estimates of risk and hazard.		The BHHRA Work Plan COPC screening includes an evaluation of cPAHs as BaP equivalents. See section 5.3.2 for detailed explanation. All cPAHs are retained as primary COPCs due to the exceedance of the sum of BaP equivalents exceeding the BaP RBSLs in groundwater, surface water, and soil.
Biota SAP Comments received 12 April 2021						
General Comments						
GC 1				In addition to the revised work plan, please provide a "red line, strike out" version of the document.		Revisions to the Biota SAP will be provided in red line strike out.
GC 2				Revise the Project Area to be consistent with Operable Unit – 01 (OU 01) of the Saint Gobain McCaffrey Street site as defined by NYSDEC. OU 01 is defined as the 6.41–acre tax parcel that comprises the site, as well as groundwater contamination directly attributable to on site disposal of materials containing hazardous waste. Data from the remedial investigation indicate this area to be generally that portion of the village of Hoosick Falls (Village) that is bounded by the Village's existing well field to the south, the Village's waste water treatment plant to the north, and the areal extent of the Village public water supply system to the east and west. A figure has been included which illustrates the proposed Project Area.		The BHHRA and BERA work plans have been updated to include a figure that displays the boundary provided by NYSDEC. The work plans refer to this area as, "Residential Irrigated Soil Area".
GC 3				The existing proposed aquatic reference sampling location is within the project area. This is not appropriate. A reference location needs to be unaffected by site related contaminants of potential concern (COPs). See comment below on Section 3 of the work plan.		The reference location has been moved further upriver, outside the boundaries associated with the Project Area.

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GC 4				Many of the proposed samples are single composite samples, which combine multiple taxa into one sample. Generally, it is preferable to use a single species/taxon in one composite sample, preferably targeting species according to the conceptual site model. For the aquatic vegetation, emergent vegetation, terrestrial vegetation, aquatic macroinvertebrate, and non earthworm soil invertebrate samples, please provide targeted taxa for sampling. Please target these taxa for sampling to the extent possible, and collect data on the relative composition of the sample by taxa if multiple taxa must be collected.		We agree in principle that the target species should match the CSM. Composites for invertebrates (except for earthworms) and vegetation were proposed for this reason. The predator species of interest are generalists in terms of the prey items that they capture and consume (i.e., are not linked to a specific species within a taxon as a sole source of food). A table has been added to list the species that are likely to be captured. If multiple taxa are collected, as may be necessary to meet the tissue mass requirements for laboratory analyses, data on the relative taxa composition of a given sample will be collected.
Specific Comments						
SP 1		1.3	4	Regulatory Concurrence. A scientific collection license must be obtained for this project. Please submit an application to NYSDEC Special Licenses Unit		Application for scientific collection licenses were submitted week of April 12.
SP 2		2.0	4	Data Quality Objectives Please include exposure point concentrations (EPCs) for surface water in this list.		Edit is made. A bullet is added indicating that EPCs will be calculated for surface water.
SP 3		Table 2.2	5 and 6	DQO Step 5. A linear regression model may work, but a generalized linear model/generalized linear mixed model may also be considered to avoid transformations.		Edit is made. General Linear Model will be used in lieu of linear regression.
SP 4		Table 2.2	5 and 6	DQO Step 6. The linear regression model criteria require better explanation. An R2 of 0.2 is not adequately predictive. A minimum R2 of 0.36 0.49 (corresponding to a Pearson's r of 0.6 0.7) is suggested. Please justify the less stringent p value ($p \leq 0.1$) for the slope differing from zero. Please explain why there is a requirement that the slope differs from one. Likewise, BAF performance criteria require better explanation. For example, will single predictor regression or multiple linear regression be used?		Additional rationale and explanation for selection of model criteria is provided. Values proposed for R-square and p value are consistent with USEPA (2005). However, the R-square criteria has been modified per request. Criteria for examining the slope was originally proposed by Bevelhimer et al. (1997) and serves as a check on whether the difference between concentrations in biota and abiotic medium is statistically significant.
SP 5		3.2.4 Figure 3 5	17 and 18	The emergent vegetation sampling locations are not co located with the mid channel sediment samples. Please add additional sediment/soil sampling locations on the eastern and western shorelines of each in river sampling location, co located with the emergent vegetation sampling locations.		Hydric soil/sediment samples will also be collected in the shoreline areas where emergent vegetation samples are collected. The soil samples will be collected from a single depth interval of 0 to 12 inches, and will be co-located with the emergent vegetation sample locations. The depth interval (0-12 inches) is expected to coincide with the root mass of the anticipated species.
SP 6		Table 3 3	20	Please ensure that that target mass of 27 grams is correct and accounts for losses during processing. For example 1 gram for a PFAS tissue sample is an absolute minimum with no room for error, 6 grams for a PCB tissue sample will likely elevate detection limits, and 5 10 grams, not 1 gram, is typically needed for a lipid tissue sample.		The minimum target mass has been increased to 88 grams to account for all target analytes plus processing losses.

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SP 7		Table 3 3	20	Method 7473 is a more efficient method for total mercury analysis.		Analytical methods will be used that match prior sample analysis so that data can be combined across sampling events. Previously mercury analysis included Method 7471B for soil and Method 7471A for surface water. Method 1631 is proposed to meet the detection limits and the recoveries for sediment.
SP 8		Table 3 3	20	Please clarify why both mercury and methyl mercury analyses are included for fish tissue		Methyl mercury will be eliminated for analysis of biota tissue. Tissue-based TRVs (mg/kg ww) will be selected assuming methyl mercury is the dominant fraction of total mercury.
SP 9		4.1.1.1	25	Collection of Soil Samples Please collect soil samples to 12 inches bgs, to align with the depth of earthworm sampling.		Soil samples will be collected to a depth of 12 inches bgs.
SP 10		4.1.4 and Appendix G SOP 05, Section 6.5	29 and 5 of SOP 05	A minimum of five (5) small mammal samples must be collected at each sample location. Please update this requirement throughout the work plan.		Sample sizes have been modified to target n=5 organisms per sampling unit.
SP 11		4.1.4 and Appendix G SOP 05, Section 6.5	29 and 5 of SOP 05	For small mammal trapping, the work plan should specify the preferred species for sampling (1 2 species). It is understood that we are interested in trophic transfer of contaminants in both herbivorous and carnivorous small mammals, but otherwise effort should be taken to minimize species variability if possible. One individual should provide sufficient mass for a sample, and multiple species may not be composited together.		The target sample mass has been increased to 88 grams. We agree that it is likely a single small mammal should be sufficient, but if compositing is needed, only organisms that are the same species will be combined in a composite sample. Field teams will apply an adaptive sampling approach that
SP 12		4.1.4 and Appendix G SOP 05, Section 6.5	29 and 5 of SOP 05	Please provide a list of target species, and alternatives that can be used in the event that targets are not captured. Please provide a size range for those target species.		Refer to the Response to GC-4
SP 13		4.2.1	30	Please sample sediment to a depth of 24 inches below sediment surface in the Hoosick River, if possible. These samples should be stratified as follows: 0 6 inches, 6 12 inches, and 12 24 inches or to refusal.		Based on discussions with NYSDEC, the state interprets the biologically active zone as 0-12 inches in sediment, although it is acknowledged that Hoosic River is rocky in the vacinity of the Project Area and shallower depths are more likely. The Biota SAP is revised to indicate that target depth intervals are 0-6 inches and 6-12 inches (or refusal, whichever is shallower).
SP 14		4.2.4	34	A minimum of five (5) fish samples must be collected for each size class (0 6 inch, 6 12 inch, >12 inch). Please update this requirement throughout the work plan.		Sample sizes have been modified to target n=5 fish per size class per sampling unit.
SP 15		4.2.4	34	Fish must be grouped by species within each composite sample. Please do not composite multiple species in one sample. Additionally, fish must be grouped by size within each composite sample. Composite samples should only be taken for smaller fish (0 6 inches) and where sample mass		Refer to the Response to GC-4. Will include target size classes.

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SP 16		4.2.4	34	With fish and macroinvertebrates being sampled in the same area, thought must be given to the order of sampling so as to minimize disturbance to sample organisms. Please provide more details on the order of sampling.		The Biota SAP text is updated to clarify the sampling order. Surface water will be collected first, then the collection of fish (minimum disturbance), followed by benthic macroinvertebrates.
SP 17		4.2.4	34	Please provide a list of target species, and alternatives that can be used in the event that targets are not captured. Please provide a size range for those target species.		The Biota SAP has been modified to included target species and size classes.
SP 18		4.2.4	35	Please clarify the last paragraph of this section, which states that a single composite sample will be collected for each in river sample location.		The Biota SAP is modified to clarify that compositing will occur for only the 0-6 inch size class, in order to obtain the minimum 88 g target mass.
SP 19		5.2.1 and 5.2.2	40 and 41	First bullet point on page 40 and identical bullet point on page 41: Isotope dilution/recovery methods should be specified. These are not a part of method 537.1, but are typically performed by contract laboratories.		Isotope dilution/recovery methods will be specified.
SP 20		5.3	42	Second bullet point: The field duplicate as described here appears to be a separate sample rather than a duplicate. Please clarify these methods.		All field duplicates are a duplicate of one primary sample location. The Biota SAP is updated to clarify (per biota type) how field duplicate samples will be obtained in the field. The text is modified to explain that the duplicate involves collecting double the mass at a given sample location (e.g. 176 g instead of 88 g) and that the sample will be split in the field for laboratory submittal.
SP 21		5.3	42	Third bullet point: If isotope dilution methods are used, the MS/MSD is not needed, as every sample gets spiked with labeled targets.		Field MS/MSDs will not be collected for isotope dilution methods (PFAS only) and clarified in the text of the Biota SAP, Appendix A, and QAPP.
SP 22		5.4	42	An EQuIS EDD format is not yet available for biological data. For now, please submit all biological data in spreadsheet (Excel or .csv) format for ease of use		An Excel format will be used to record all pertinent collection data and laboratory findings in a similar format to EQuIS EDD. The format of deliverables thus far has been requested by the laboratory. The laboratory provided format will be combined with the NYSDEC requirements in an EDD format.
SP 23		Appendix A Table 1a	1	The in river sampling units presented in this table (T1 T4) appear incorrect. Six (6) in river sample locations are described throughout the work plan. Please correct this table.		There was an error in the calculation for Table 1A where the difference appears to originate with TR-1 and TR-2 as reference locations. Table 1A is corrected.
SP 24		Appendix A Table 1b	2	For fish tissue, the blanks should be laboratory blanks.		Field equipment blanks will be collected consistent with the requirements of NYSDEC. As outlined in Table 4 of the QAPP, at least one equipment blank is required per day, per matrix collected for PFAS. The blanks outlined in Table 1B is updated to reflect the state requirement for blank collection regarding PFAS.

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SP 25		Appendix B QAPP 2.3	3	Please state which TestAmerica labs will be receiving which samples. Will samples be shipped to a central TestAmerica facility for distribution, or will samples be processed and distributed by ERM?		The laboratory locations for each matrix and each analytical suite are indicated in the footers of the QAPP tables. These locations are added to the QAPP text for clarification.
SP 26		Appendix B QAPP 3.2	4	Laboratory duplicate/replicate samples are needed at a 1:20 rate. Additionally, where available, reference material should be run at a 1:20 rate for matrix target combinations. NIST 1947 has reference values for Hg, PFOS, and some metals. NYSDEC has a reference value for total PCBs in NIST 1947.		Field and laboratory duplicates are to occur at a 1:20 rate as outlined in the Biota SAP. A reference to NIST has been added to the QAPP text.
SP 27		Appendix B QAPP Table 7D	Follows QAPP	MS/MSD Accuracy and LCS Accuracy are too broad. A reasonable range is 70 130%.		A request to the laboratory has been made to adjust the MS/MSD and LCS Accuracies.
SP 28		Appendix B QAPP Table 7D	Follows QAPP	MS/MSD Precision is also too broad. An MS/MSD Precision of +/ 30% is reasonable.		A request to the laboratory has been made to adjust the MS/MSD Precision.
SP 29		Appendix B QAPP Table 7D	Follows QAPP	The RL and MDL of 0.1% for lipids are not acceptable and should be 0.05% at maximum.		A request to the laboratory has been made to determine if they can meet the lower % for lipids.
SP 30		Appendix B QAPP Table 7D	Follows QAPP	Aroclors 1016 and 1242 should not be quantified in the same sample due to overlap in chromatography and further challenges with weathered samples. The lab should not spike with 1242 if quantifying 1016, or spike with 1016 if quantifying 1242. Either 1016 or 1242 can be chosen for total PCB analysis.		The laboratory only quantifies 1016 and 1260 due to the overlap in chromatography. A request has been made to the laboratory to determine if they can select 1242 instead of 1016 for laboratory spike (the more likely Aroclor to be present in fish tissue).
SP 31		Appendix E SOP 3	1	Footnote 1 states that other annelids, nematodes, and arthropods may be collected, in addition to earthworms. Please target collection of earthworms and avoid compositing specimens from multiple taxa. If sufficient effort has been taken to collect earthworms, and the sample mass cannot be met, please contact NYSDEC to determine next steps.		The sampling and compositing activities are to be conducted as indicated in NYSDEC comments, with additional clarifications: • To avoid confusion, Footnote 1 is removed and text focuses on the collection of earthworms. • As currently stated in the work plan, when insufficient sample mass is collected at a particular sampling location, selection of specific samples to composite for laboratory analyses will be determined in discussion with regulatory agency oversight prior to initiating chemical analyses.
SP 32		Appendix L Sections 10.5 and 10.6	8 and 9	Fish preparation must follow the NYSDEC fish preparation SOP. There is no mention throughout this work plan of the NY standard fillet, which is the required preparation for fillet samples. Please inquire if a copy of the SOP is needed.		The laboratory has confirmed that preparation will be conducted in accordance with NYSDEC SOP and a copy is retained by the laboratory on file.
Human Health Risk Assessment Comments received 12 April 2021						
1				In addition to the revised work plan, please provide a "red line, strikeout" version of the document.		This is done.

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NYSDEC Site # 442046

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2				Revise the Project Area to be consistent with Operable Unit – 01 (OU-01) of the Saint-Gobain - McCaffrey Street site as defined by NYSDEC. OU-01 is defined as the 6.41–acre tax parcel that comprises the site, as well as groundwater contamination directly attributable to on-site disposal of materials containing hazardous waste. Data from the remedial investigation indicate this area to be generally that portion of the village of Hoosick Falls (Village) that is bounded by the Village's well field to the south, the Village's waste water treatment plant to the north, and the areal extent of the Village public water supply system to the east and west. A figure is included illustrating the proposed Project Area.		The BHHRA and BERA work plans have been updated to include a figure that displays the boundary provided by NYSDEC. The work plans refer to this area as, "Residential Irrigated Soil Area".
3				Local produce and agricultural products: Include a discussion and analysis section for data from available scientific studies that can be utilized to assess the potential for uptake of site-related COCs, by dietary items representative of those present in, and around, the project area. Results of the assessment should indicate: a. whether potential risk is posed by ingestion of native-grown dietary items exposed to contaminants of potential concern (COPCs) in soil; and b. Which classes or categories of dietary items pose potential risk due to ingestion. Where literature indicates substantial uptake potential, quantitative evaluation of risk posed by dietary intake should be performed. If the literature is not conclusive regarding a substantial portion of foods that comprise a typical diet in the area (meats, dairy, fruit and vegetables), some analysis of representative dietary items may be required to fill the gap in literature.		A preliminary literature review and summary is provided in the BHHRA in Tables 4.1 to 4.4, and Sections 5.3.3 and 7.3.2.3. Sufficient literature appears to be available to develop reliable estimates of soil-to-biota and water-to-biota uptake factors or regression relations for use in quantifying dietary exposures. In addition, site-specific estimates for vegetation (grasses and leaves) will be developed for comparison with literature-based factors on similar types of plants in order to assess the conditions at the site relative to conditions reported in the literature. As notes in the BHHRA Work Plan, literature-based BAFs/BCFs will be updated just prior to conducting the risk assessment to ensure that the most current information is utilized in the BHHRA.
4		7.3.1		Exposure Units (EUs): Section 7.3.1 introduces the 0.25 ac grid for off-site areas but fails to explain how off-site EUs will be defined and the anticipated data requirements/grouping. Clarify how off-site EUs will be defined and what level of environmental data is expected to be associated with nature and extent characterization, by environmental contact media. Within the off-site EU(s), please clarify the nature and extent characterization goals associated with surface and subsurface soil. Excising data are limited to off-site areas east of the Hoosick river and subsurface soil samples are limited to points east of the facility.		The text is modified to included a description of proposed methods for evaluating EUs throughout the Project Area, including applying a grid of EUs, examining spatial patterns and autocorrelation, and developing summary statistics that can be used to quantify uncertainty in extrapolating to unsampled areas and/or depth intervals.
5				PCB Characterization: provide clarification as to future analyses of PCBs. During the December 11, 2020 conference call discussion there was agreement to conduct congener-specific analyses for PCBs in fish tissue (fillet-only samples). It doesn't appear that the work plan has been updated to address this issue. Please clarify, by medium, the proposed PCB analyses.		The workplan has been updated to reflect the subsequent discussion with NYSDEC on April 23. The Uncertainty Analysis section of the BHHRA will include a discussion of the use of PCB Aroclors and the fact that a congner-specific analysis would be unlikely to yield different risk conclusions because PCBs are infreqently detected, and the dioxin-like PCB congeners with the highest TEFs (e.g., PCB 126) comprise an extremely small percentage (by mass) of the predominant Aroclors that have been detected in soil. Additional text has been added to Section 5.3.2 and 9.4.

TABLE C1
Comments and Responses on Draft BHHRA and BERA Work Plans Submitted September 2020 - Updated with Comments Recevied April 2021
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Comment	Type*	Section	Page	Comment by NYSDEC and USEPA	Clarification of Comment by NYSDEC and USEPA[a]	Response / Resolution in Revised Work Plan
6		7.3.1	35	Page 35, Section 7.3.1 “EUs”: the correct figure reference appears to be 5 and not 6 as written. Please confirm and update as necessary.		Figure references have been updated.
7		7.3.2.3.	43	Page 43, Section 7.3.2.3. “Ingestion of Fish Tissue”, last sentence: please do not adjust for cooking loss in the RME fish ingestion calculation.		Text is modified to indicate that cooking loss will not be applied to the RME.
8		7.3.4	46-47	Page 46-47, Section 7.3.4 “EPCs”: Please be sure to run ProUCL using non-detect data.		ProUCL will be run with nondetects included, following USEPA guidance and methods for parameter estimation of left-censored data (i.e., Kaplan Meier estimators).
9				General Comment for groundwater EPCS: Please refer to and abide by the OSWER Directive 9283.1-42 entitled “Determining Groundwater Exposure Point Concentrations”. Please be sure to use core of the plume methodology when calculating groundwater EPCs and discuss the details of the well selection in the text of the HHRA.		The OSWER Directive is referenced in the list of guidance that will be considered (Section 1.2) as well as Section 7.3.4 Exposure Point Concentrations.
Ecological Risk Assessment Comments received 12 April 2021						
1				In addition to the revised work plan, please provide a "red line, strike out" version of the document		This is done.
2				Revise the Project Area to be consistent with Operable Unit – 01 (OU-01) of the Saint-Gobain - McCaffrey Street site as defined by NYSDEC. OU-01 is defined as the 6.41–acre tax parcel that comprises the site, as well as groundwater contamination directly attributable to on-site disposal of materials containing hazardous waste. Data from the remedial investigation indicate this area to be generally that portion of the village of Hoosick Falls (Village) that is bounded by the Village’s well field to the south, the Village’s waste water treatment plant to the north, and the areal extent of the Village public water supply system to the east and west. A figure is included illustrating the proposed Project Area.		The BHHRA and BERA work plans have been updated to include a figure that displays the boundary provided by NYSDEC. The work plans refer to this area as, "Residential Irrigated Soil Area".

Comment Number:
GC - General Comment; SC - Specific Comment; HH - Human Health Risk Comment; ECO - Ecological Risk Comment

Footnotes:
[a] NYSDEC provided an initial set of comments on November 13, 2020 and a second set of clarifying comments on December 23, 2020.

Notes:
E = editorial comment (classified by NYSDEC)
S = substantive comment (classified by NYSDEC)

TABLE C2
Biota Sampling and Analysis Plan (DRAFT Feb 22, 2021) - Response to Comments Received from NYSDEC on April 1, 2021 - Email from B. Firebaugh
McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Comment Number	Location Reference		Comment(s) by NYSDEC and/or USEPA	Response/ Resolution in Revised Biota SAP
	Section	Page		
GC 1	----	----	In addition to the revised work plan, please provide a "red line, strike out" version of the document.	Revisions to the Biota SAP are provided in red line strike out.
GC 2	----	----	Revise the Project Area to be consistent with Operable Unit – 01 (OU 01) of the Saint Gobain McCaffrey Street site as defined by NYSDEC. OU 01 is defined as the 6.41–acre tax parcel that comprises the site, as well as groundwater contamination directly attributable to on site disposal of materials containing hazardous waste. Data from the remedial investigation indicate this area to be generally that portion of the village of Hoosick Falls (Village) that is bounded by the Village's existing well field to the south, the Village's waste water treatment plant to the north, and the areal extent of the Village public water supply system to the east and west. A figure has been included which illustrates the proposed Project Area.	The Biological Field Sampling and Analysis Plan (Biota SAP) has been updated to include a figure that displays the boundary agreed upon with NYSDEC. The Biota SAP refer to the previously defined Project Area now as "Study Area." The southern portion of the Study Area is presented on **Figure 3-1**.
GC 3	----	----	The existing proposed aquatic reference sampling location is within the project area. This is not appropriate. A reference location needs to be unaffected by site related contaminants of potential concern (COPs). See comment below on Section 3 of the work plan.	The reference location has been moved further upriver, outside the boundaries associated with the now Study Area (previously defined Project Area).
GC 4	----	----	Many of the proposed samples are single composite samples, which combine multiple taxa into one sample. Generally, it is preferable to use a single species/taxon in one composite sample, preferably targeting species according to the conceptual site model. - For the aquatic vegetation, emergent vegetation, terrestrial vegetation, aquatic macroinvertebrate, and non earthworm soil invertebrate samples, please provide targeted taxa for sampling. Please target these taxa for sampling to the extent possible, and collect data on the relative composition of the sample by taxa if multiple taxa must be collected.	It is in agreement that the target species should match the conceptual site model (CSM). Composites for invertebrates (except for earthworms) and vegetation were proposed for this reason. The predator species of interest are not obligate in terms of the prey items they capture and consume (i.e., are not obligated to prey on a specific species within a taxon as a sole source of food). A table has been added to list the species that are likely to be captured. If multiple taxa are collected, as may be necessary to meet the tissue mass requirements for laboratory analyses, data on the relative taxa composition of a given sample will be collected.
SP 1	1.3	4	Regulatory Concurrence. A scientific collection license must be obtained for this project. Please submit an application to NYSDEC Special Licenses Unit	Applications for scientific collection licenses were submitted week of in April and early May.
SP 2	2.0	4	Data Quality Objectives Please include exposure point concentrations (EPCs) for surface water in this list.	A bullet has been added indicating that EPCs will be calculated for surface water.
SP 3	Table 2.2	5 and 6	DQO Step 5. A linear regression model may work, but a generalized linear model/generalized linear mixed model may also be considered to avoid transformations.	A Generalized Linear Model will be considered to avoid transformations.
SP 4	Table 2.2	5 and 6	DQO Step 6. The linear regression model criteria require better explanation. An R2 of 0.2 is not adequately predictive. A minimum R2 of 0.36 0.49 (corresponding to a Pearson's r of 0.6 0.7) is suggested. Please justify the less stringent p value ($p \leq 0.1$) for the slope differing from zero. Please explain why there is a requirement that the slope differs from one. Likewise, BAF performance criteria require better explanation. For example, will single predictor regression or multiple linear regression be used?	Additional rationale and explanation for selection of model criteria is provided. Values proposed for R^2 and p value are consistent with USEPA (2005). However, the R^2 criteria has been modified per request. Criteria for examining the slope was originally proposed by Bevelhimer et al. (1997) and serves as a check on whether the difference between concentrations in biota and abiotic medium is statistically significant.
SP 5	3.2.4 Figure 3 5	17 and 18	The emergent vegetation sampling locations are not co located with the mid channel sediment samples. Please add additional sediment/soil sampling locations on the eastern and western shorelines of each in river sampling location, co located with the emergent vegetation sampling locations.	Soil samples will also be collected in the shoreline areas where emergent vegetation samples are collected. The soil samples will be collected from a single depth interval of 0 to 12 inches below ground surface (bgs), and will be co-located with the emergent vegetation sampling locations. The depth interval (0 to 12 inches bgs) is expected to coincide with the root mass of the anticipated emergent vegetation species collected.
SP 6	Table 3 3	20	Please ensure that that target mass of 27 grams is correct and accounts for losses during processing. For example 1 gram for a PFAS tissue sample is an absolute minimum with no room for error, 6 grams for a PCB tissue sample will likely elevate detection limits, and 5 10 grams, not 1 gram, is typically needed for a lipid tissue sample.	The minimum target mass has been increased to 49 grams for plant tissues and 69 grams for all other tissue samples to be collected in order to account for all target analytes, detection limits, and loss due to homogenization. The breakdown of these minimum volumes has been included in the Biota SAP.
SP 7	Table 3 3	20	Method 7473 is a more efficient method for total mercury analysis.	Analytical methods that coincide with previously collected samples at the Site will be used so that data can be combined across sampling events. Mercury analysis will include USEPA Method 7471B for soil/sediment and USEPA Method 7471A for surface water. USEPA Method 1631E is proposed to meet the lower detection limits and recoveries for tissues.

TABLE C2
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McCaffrey Street Site
14 McCaffrey Street, Village of Hoosick Falls, Rensselaer County, New York
NYSDEC Site # 442046

Comment Number	Location Reference		Comment(s) by NYSDEC and/or USEPA	Response/ Resolution in Revised Biota SAP
	Section	Page		
SP 8	Table 3 3	20	Please clarify why both mercury and methyl mercury analyses are included for fish tissue.	Methyl mercury analysis has been eliminated for all media.
SP 9	4.1.1.1	25	Collection of Soil Samples Please collect soil samples to 12 inches bgs, to align with the depth of earthworm sampling.	Soil samples will be collected to a depth of 12 inches bgs (interval from 0 to 12 inches below grade).
SP 10	4.1.4 and Appendix G SOP 05, Section 6.5	29 and 5 of SOP 05	A minimum of five (5) small mammal samples must be collected at each sample location. Please update this requirement throughout the work plan.	Sample sizes have been modified to target n = 5 organisms per sampling unit.
SP 11	4.1.4 and Appendix G SOP 05, Section 6.5	29 and 5 of SOP 05	For small mammal trapping, the work plan should specify the preferred species for sampling (1 2 species). It is understood that we are interested in trophic transfer of contaminants in both herbivorous and carnivorous small mammals, but otherwise effort should be taken to minimize species variability if possible. One individual should provide sufficient mass for a sample, and multiple species may not be composited together.	The target sample mass for tissue has been increased to 69 grams (49 grams for plant tissue). It is in agreement that it is likely that a single small mammal should be sufficient, but if compositing is needed, only organisms that are the same species will be combined in a composite sample. Field sampling teams will implement an adaptive management approach.
SP 12	4.1.4 and Appendix G SOP 05, Section 6.5	29 and 5 of SOP 05	Please provide a list of target species, and alternatives that can be used in the event that targets are not captured. Please provide a size range for those target species.	Refer to the Response to GC-4.
SP 13	4.2.1	30	Please sample sediment to a depth of 24 inches below sediment surface in the Hoosick River, if possible. These samples should be stratified as follows: 0 6 inches, 6 12 inches, and 12 24 inches or to refusal.	The Biota SAP has been revised to indicate that target depth intervals for sediment sampling are 0 to 6 inches, 6 to 12 inches, and 12 to 24 inches bgs (or refusal, whichever is shallower). Although, it is acknowledged that Hoosic River is rocky in the vicinity of the Study Area (previously defined Project Area) and shallower depths are more likely.
SP 14	4.2.4	34	A minimum of five (5) fish samples must be collected for each size class (0 6 inch, 6 12 inch, >12 inch). Please update this requirement throughout the work plan.	A minimum of five fish samples will be collected for each size class (0 to 6 inches, 6 to 12 inches, and > 12 inches) at each sampling location. Fish in the 6 to 12 inch size class should be analyzed individually as stand-alone samples, if possible (i.e., the individual fish meets the minimum sample mass requirement).
SP 15	4.2.4	34	Fish must be grouped by species within each composite sample. Please do not composite multiple species in one sample. Additionally, fish must be grouped by size within each composite sample. Composite samples should only be taken for smaller fish (0 6 inches) and where sample mass requirements cannot be met. Fish in the 6 12 inch size class should be analyzed individually if possible.	Refer to the Response to GC-4. The minimum target mass has been increased to 69 grams for fish tissue samples.
SP 16	4.2.4	34	With fish and macroinvertebrates being sampled in the same area, thought must be given to the order of sampling so as to minimize disturbance to sample organisms. Please provide more details on the order of sampling.	The Biota SAP text has been updated to clarify the sampling order. Surface water will be collected first, followed by the collection of fish (minimum disturbance), then benthic macroinvertebrates.
SP 17	4.2.4	34	Please provide a list of target species, and alternatives that can be used in the event that targets are not captured. Please provide a size range for those target species.	The Biota SAP has been modified to included target species and size classes.
SP 18	4.2.4	35	Please clarify the last paragraph of this section, which states that a single composite sample will be collected for each in river sample location.	The Biota SAP is modified to clarify that compositing will occur for only the 0 to 6 inch size class, in order to obtain the minimum 69 grams target mass.
SP 19	5.2.1 and 5.2.2	40 and 41	First bullet point on page 40 and identical bullet point on page 41: Isotope dilution/recovery methods should be specified. These are not a part of method 537.1, but are typically performed by contract laboratories.	Isotope dilution/recovery methods are specified in the laboratory SOPs appended as part of the Quality Assurance Project Plan (QAPP).
SP 20	5.3	42	Second bullet point: The field duplicate as described here appears to be a separate sample rather than a duplicate. Please clarify these methods.	All field duplicates are a duplicate of one primary sample location. The Biota SAP and QAPP have been updated to clarify (per media) how field duplicate samples will be obtained in the field. The text and sampling matrix has been modified to explain that the multiple collections for fish and small mammals represent replicate samples which represent the duplicate procedure. Many replicate samples will be collected for fish and small mammals and be analyzed by the laboratory.
SP 21	5.3	42	Third bullet point: If isotope dilution methods are used, the MS/MSD is not needed, as every sample gets spiked with labeled targets.	Field MS/MSDs will not be collected for isotope dilution methods (PFAS only) and clarified in the text of the Biota SAP, Appendix A, and QAPP.

GSI ENVIRONMENTAL

TABLE C2
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SP 22	5.4	42	An EQuIS EDD format is not yet available for biological data. For now, please submit all biological data in spreadsheet (Excel or .csv) format for ease of use	An Excel format will be used to record all pertinent collection data and laboratory findings in a similar format to EQuIS EDD. The format of deliverables thus far has been requested by the laboratory. The laboratory provided format will be combined with the NYSDEC requirements in an EDD format.
SP 23	Appendix A Table 1a	1	The in river sampling units presented in this table (T1 T4) appear incorrect. Six (6) in river sample locations are described throughout the work plan. Please correct this table.	There was an error in the calculation for the Summary Table (**Table 1a**). **Table 1a** has been corrected.
SP 24	Appendix A Table 1b	2	For fish tissue, the blanks should be laboratory blanks.	Field equipment blanks will be collected consistent with the requirements outlined by NYSDEC. The equipment blank procedures are outlined in the QAPP and Appendix A.
SP 25	Appendix B QAPP 2.3	3	Please state which TestAmerica labs will be receiving which samples. Will samples be shipped to a central TestAmerica facility for distribution, or will samples be processed and distributed by ERM?	The laboratory locations for each matrix and each analytical suite are indicated in the footers of the QAPP tables. These locations are added to the QAPP text for clarification.
SP 26	Appendix B QAPP 3.2	4	Laboratory duplicate/replicate samples are needed at a 1:20 rate. Additionally, where available, reference material should be run at a 1:20 rate for matrix target combinations. NIST 1947 has reference values for Hg, PFOS, and some metals. NYSDEC has a reference value for total PCBs in NIST 1947.	Field and laboratory duplicates (and/or replicates) are to occur at a 1:20 rate as outlined in the Biota SAP. If available at the time of the analyses, and feasible, reference material will be obtained by the laboratory for select COPCs, including applicable New York sources from the National Institute of Standards and Technology (NIST) Standard Reference Materials (SRM) 1947. This statement has been incorporated into the QAPP.
SP 27	Appendix B QAPP Table 7D	Follows QAPP	MS/MSD Accuracy and LCS Accuracy are too broad. A reasonable range is 70 130%.	Project Specific LCS/MS/MSD limits have been established to accommodate requests. If the recovery is outside the requested limits, but within laboratory limits, the data will be flagged and narrated but not re-extracted.
SP 28	Appendix B QAPP Table 7D	Follows QAPP	MS/MSD Precision is also too broad. An MS/MSD Precision of +/ 30% is reasonable.	Project Specific MS/MSD precision has been established to accommodate requests. If the precision is outside the requested limits, but within laboratory limits, the data will be flagged and narrated but not re-extracted.
SP 29	Appendix B QAPP Table 7D	Follows QAPP	The RL and MDL of 0.1% for lipids are not acceptable and should be 0.05% at maximum.	A request has been made to the laboratory to lower the RL and MDL for lipids to 0.05%. The laboratory has agreed to these lower limits with an increase in minimum target volume (from the previous minimum of 1 gram to 20 grams).
SP 30	Appendix B QAPP Table 7D	Follows QAPP	Aroclors 1016 and 1242 should not be quantified in the same sample due to overlap in chromatography and further challenges with weathered samples. The lab should not spike with 1242 if quantifying 1016, or spike with 1016 if quantifying 1242. Either 1016 or 1242 can be chosen for total PCB analysis.	The laboratory only quantifies 1016 and 1260 due to the overlap in chromatography. A request has been made to the laboratory to select 1242 instead of 1016 for laboratory spike (the more likely Aroclor to be present in fish tissue).
SP 31	Appendix E SOP 3	1	Footnote 1 states that other annelids, nematodes, and arthropods may be collected, in addition to earthworms. Please target collection of earthworms and avoid compositing specimens from multiple taxa. If sufficient effort has been taken to collect earthworms, and the sample mass cannot be met, please contact NYSDEC to determine next steps.	The sampling and compositing activities are to be conducted as indicated in NYSDEC comments, with additional clarifications: • To avoid confusion, Footnote 1 has been removed and text focuses on the collection of earthworms. • As currently stated in the work plan, when insufficient sample mass is collected at a particular sampling location, selection of specific samples to composite for laboratory analyses will be determined in discussion with regulatory agency oversight prior to initiating chemical analyses
SP 32	Appendix L Sections 10.5 and 10.6	8 and 9	Fish preparation must follow the NYSDEC fish preparation SOP. There is no mention throughout this work plan of the NY standard fillet, which is the required preparation for fillet samples. Please inquire if a copy of the SOP is needed.	The laboratory has confirmed that preparation will be conducted in accordance with NYSDEC SOP and a copy is retained by the laboratory on file.

GC= General Comment
SC = Specific Comment