Risk-Based Polychlorinated Biphenyl Cleanup Plan
Gibson Scrapyard (851058)

Steuben County, Gibson, New York
Work No. Assignment D009806-05

Prepared for

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7017

NEW YORK STATE | Department of Environmental Conservation

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January 2025
Version: FINAL
EA Project No. 1602505

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REPORT DISTRIBUTION LIST

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LIST OF ACRONYMS AND ABBREVIATIONS

ARGO	ARGO Systems, LLC
ARGO Team	ARGO Systems, LLC and its subcontractor EA Engineering, P.C. and its affiliate EA Science and Technology
bgs	Below ground surface
CFR	Code of Federal Regulations
EA	EA Science and Technology and its affiliate EA Engineering, P.C.
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ft	Foot (feet)
µg/L	Microgram(s) per liter
mg/kg	Milligram(s) per kilogram
MW	Monitoring well
NYSDEC	New York State Department of Environmental Conservation
PCB	Polychlorinated biphenyl
RI	Remedial Investigation
SI	Site Investigation
Site	Gibson Scrapyard Site

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EXECUTIVE SUMMARY

This Risk-Based Polychlorinated biphenyl (PCB) Cleanup and Plan includes a summary of the site characterization activities at the 3.2-acre Gibson Scrapyard Site (Site) (New York State Department of Environmental Conservation [NYSDEC] Site No. 851058), the Pathway Analysis evaluation, the PCB Cleanup Plan for the site, and the required Certification. The objective of the PCB Cleanup Plan is to address PCB contamination in soil related to historical industrial waste landfilling and scrap metal recycling that occurred at the Site. This application has been prepared by EA Engineering, P.C. and its affiliate, EA Science and Technology (EA), under contract to NYSDEC. The Site is located at 2972 Main Street in the Hamlet of Gibson in the Town of Corning, Steuben County, New York. The Site consists of three parcels, two of which are owned by Corning Materials Inc., and the third is owned by Corning Waste Materials Inc. The site is currently vacant, and per the Town of Corning, parcels are zoned Residence, Low Density; however, per Stueben County, two parcels are zoned for commercial use and one parcel is zoned for residential use. NYSDEC requested zoning confirmation/changes through a letter sent to the Town of Corning in March 2023, specifically requesting that non-commercial parcels be rezoned to commercial.

A 1997 Phase I Environmental Site Assessment (ESA) by Fagan Engineers identified the site as a former industrial waste landfill and scrapyard. Under contract to EPA, Phase I ESA and Phase II Site Investigation (SI) were conducted by ARGO Systems, LLC and its subcontractor EA (ARGO Team) in 2009 and 2010, respectively.

The Phase II SI revealed the presence of waste (plastic, metal, construction waste, etc.) and munitions debris, and that site soil contained PCBs at concentrations up to 110 milligrams per kilogram (mg/kg). PCBs in surface water samples collected from the adjacent Narrows Creek were at concentrations less than the NYSDEC Class GA Ambient Water Quality Standards for surface water and the EPA decontamination standard for unrestricted use (Title 40 of the Code of Federal Regulations [CFR] §761.79) of 0.5 micrograms per liter. A Remedial Investigation and Feasibility Study were conducted by EA under contract to NYSDEC (Remedial Investigation in 2019-2020 and Feasibility Study in 2023), which identified PCBs in surface and subsurface soil throughout the site. Concentrations of PCBs ranged from non-detect (<0.23 mg/kg) to 218 mg/kg in surface soil and non-detect (<0.23 mg/kg) to 206 mg/kg in subsurface soil. Site groundwater, off-site surface water, and off-site sediment were not impacted by PCBs.

This Risk-Based PCB Cleanup Plan is being submitted to EPA Region 2 for review and approval in accordance with 40 CFR §761.61(c). The environmental remediation is being managed by NYSDEC. As such, upon approval of this application and plan by EPA Region 2, as part of the State Superfund Program, NYSDEC will prepare a Proposed Remedial Action Plan (PRAP) for public comment and hold a public meeting to present the proposed remedial solution to address site contaminants including PCBs. Comments received will be compiled in a Responsiveness Summary, and the PRAP will be modified as necessary, followed by preparation of a Record of Decision (ROD), which will include the selected remedial action, the Responsiveness Summary, and a bibliography of documents used to reach the decision. Upon issuance of the ROD, the remedial design will be prepared and carried out through construction by NYSDEC. At the conclusion of the PCB cleanup, a Final Engineering Report inclusive of the required elements for

records retention in accordance with the Toxic Substances Control Act will be prepared. The Final Engineering Report will subsequently be submitted to EPA Region 2 for the file, retained in the identified project repository, and included in the NYSDEC's electronic repository.

The proposed Cleanup Plan consists of eliminating, to the extent practicable, potential exposure pathways for potential receptors as further described in the attached Pathway Analysis Report (**Appendix B**). Based on the Pathway Analysis Report, the site contamination exposure pathways considered complete are incidental ingestion and dermal contact with soil, and inhalation of chemicals adsorbed to soil released to outdoor air. The Proposed Cleanup Plan includes placement of a clean soil cover consistent with 6 New York Code of Rules and Regulations Part 375 for mixed use. At the request of NYSDEC Division of Fish and Wildlife, the soil cover will be 2 feet thick to ensure protection to ecological receptors. In addition, the Proposed Cleanup Plan includes installing a perimeter fence and locking gate with signage, primarily to protect against potential contact with munitions (but has the added benefit of deterring trespassers), and institutional controls consistent with Part 375-1.8(h) to limit site use so that the remedy would be protective in perpetuity and ensure PCBs at the site do not pose an unacceptable risk to human health and the environment.

1. BACKGROUND

1.1 SITE DESCRIPTION

The Gibson Scrapyard Site (Site) is located at 2972 Main Street in the Hamlet of Gibson in the Town of Corning, Steuben County, New York (**Figure 1-1** in **Appendix A**). The Site is comprised of three parcels, totaling 3.2-acres in a rural residential and undeveloped area.

The Site is currently vacant, and per the Town of Corning, parcels are zoned Residence, Low Density; however, per Stueben County, two parcels are zoned for commercial use and one parcel is zoned for residential use. The New York State Department of Environmental Conservation (NYSDEC) requested zoning confirmation/changes through a letter sent to the Town of Corning in March 2023, specifically requesting that non-commercial parcels be rezoned to commercial. There are currently no planned future uses of the Site. The Site contains no structures other than a concrete slab associated with a former weigh station, and access to the property is currently limited. The site is accessed via a small steel bridge that spans Narrows Creek. Vehicles are currently prohibited from crossing the bridge by concrete blockades. The foundation of the bridge has been observed to be crumbling; a structural evaluation would need to be conducted of the bridge, followed by likely repair or reconstruction prior to use of the bridge for any vehicular traffic. The Site is bounded by Narrows Creek to the south, vacant residential property to the southeast, the Norfolk Southern Railroad and Interstate-86 to the west, and a steep wooded embankment to the east and north. The steep embankment and railroad converge to form the northern boundary. The southern half of the Site is overgrown with grasses, shrubs, and brush while the northern portion of the Site contains open areas with little to no vegetative growth. Two areas of the Site contain mounds of concrete, asphalt, and soil/gravel fill materials deposited during construction activities for the nearby Interstate-86.

Bedrock beneath the Site is shallow and was encountered at roughly 12 to 15 feet (ft) below ground surface (bgs) at the north end of the Site and observed to dip southward to depths below 40 ft bgs. Static groundwater elevations and general groundwater flow direction were estimated based on gauging data collected from monitoring wells during groundwater sampling in May 2021. Groundwater elevations range from approximately 925 ft above mean sea level at the eastern border of the Site to approximately 910 ft above mean sea level at the western border of the Site and flows predominately in the west-southwest direction toward Chemung River. Stormwater from the Site infiltrates primarily downward due to mounded areas and permeable ground surfaces.

No federally listed or proposed endangered or threatened species under jurisdiction of the U.S. Fish and Wildlife Service have been identified at the Site, and no listed or suspected critical habitats are present. However, the NYSDEC Environmental Resource Mapper (NYSDEC 2022a) and NYSDEC List of Endangered, Threatened, and Special Concern Fish and Wildlife Species of New York State (NYSDEC 2022b) indicate that the Narrows Creek and Chemung River water bodies are aquatic habitats for some endangered, threatened, and special concern animal species in the vicinity of the Site. The threatened species include the brook floater (*Alasmidonta varicose*) and green floater (*Lasmigona subviridis*); the swallowtail shiner (*Notropis procne*) is a high priority species of greatest conservation need (NYSDEC 2022b). There are no records of

any historic or culturally sensitive landmarks on the Site. Sensitive receptors due to concentrations of contaminants and exposure pathways are limited to on-site receptors, such as trespassers and construction or utility workers, as specified in the Pathway Analysis Report (**Appendix B**).

1.2 SITE USE HISTORY

The Site reportedly operated as an industrial landfill from approximately 1940 to 1950. From 1950 to 1975, the Corning Materials facility, a metal scrap recycler, operated at the Site. It was reported that waste was accepted from industries including Ingersoll Rand, Corning Glass, Westinghouse, and General Electric. The Site was permitted as a Resource Conservation and Recovery Act large quantity generator of hazardous waste. Waste was reported to be buried at depths of up to 15 ft bgs. Previous investigations identified World War II-era munitions debris potentially from the Seneca Army Depot, polychlorinated biphenyl (PCB) oil, drums of solvents, and lead powder as potential wastes. During the Remedial Investigation (RI), medium caliber practice projectiles (i.e., 20 to 30 millimeters) were identified within the upper 5 ft of site soil. In addition, there were anecdotal accounts that the facility historically detonated munitions on-site (Fagan Engineers 1998).

1.3 SITE CHARACTERIZATION

PCB characterization activities were conducted at the Site beginning in 2010. ARGO Systems, LLC (ARGO) and its subcontractor EA Science and Technology and its affiliate EA Engineering, P.C. (ARGO Team) conducted a Phase II Site Investigation (SI) in February 2010, which consisted of the characterization and evaluation of on-site soil and groundwater, and off-site surface water (ARGO 2010). Further characterization as part of the RI was conducted by EA Science and Technology and its affiliate EA Engineering, P.C. (EA) from 2019-2021, on behalf of NYSDEC, which included additional on-site soil and groundwater sampling, and off-site surface water and sediment sampling.

Due to historical reports of the disposal of munitions at the Site, as well as the confirmed presence of munitions debris, munitions and explosives of concern avoidance activities were performed during all intrusive field activities. This consisted of visual and electronic surface/subsurface techniques to locate and identify anomalies by qualified unexploded ordnance technicians. Overall, Site sampling activities were limited due to the risks involved with the confirmed presence of munitions.

1.3.1 Soil

Soil sample locations are shown on **Figure 1-2** in **Appendix A**; total PCB concentrations in soil collected during the 2010 Phase II SI and 2019-2021 RI are summarized in **Tables 1-1** and **1-2** in **Appendix C**, respectively. The Phase II SI Report and RI Report are provided in **Appendix D**.

The Phase II SI soil sampling activities included excavation of 15 test pits up to 15 ft deep and advancement of 9 soil borings up to 24 ft deep across the Site. A minimum of one soil sample was collected from each test pit, and soil samples were collected at 5-ft intervals in the soil

borings. Samples were collected using clean nitrile gloves and homogenized in clean stainless-steel bowls prior to placement in laboratory-supplied glassware. Samples were submitted to Mitkem Laboratory of Warwick, Rhode Island to be analyzed for PCBs using U.S. Environmental Protection Agency (EPA) method 8082A and the approved extraction method at the time of sampling, 3550B. Samples were analyzed in accordance with EPA and NYSDEC Analytical Services Protocols. A total of 39 soil samples were collected. Analytical results identified a maximum total PCB concentration of 103 milligrams per kilogram (mg/kg) in surface soil (0-2 ft bgs in TP-09) and 110 mg/kg in subsurface soil (11 ft bgs in SB05) (**Table 1-1** in **Appendix C**; **Figure 1-2** in **Appendix A**). The Phase II SI report is provided in **Appendix D**.

RI activities included surface soil sampling in 2019 and subsurface soil sampling in 2021. Surface soil samples were collected from 0 to 6 inches bgs using clean stainless-steel spoons and homogenized in stainless steel bowls prior to placement in laboratory-supplied glassware. Samples were submitted to Eurofins TestAmerica laboratory to be analyzed for PCBs using EPA method 8082A and the approved extraction method at the time of sampling, 3550C. Samples were analyzed in accordance with EPA and NYSDEC Analytical Services Protocols. Of the 14 surface soil samples collected, 12 samples had total PCB concentrations greater than the NYSDEC Unrestricted Use Soil Cleanup Objectives of 0.1 mg/kg and ranged from 0.24 mg/kg (SS-05) to 218 mg/kg (SS-09). Ten surface soil samples had total PCB concentrations greater than the EPA cleanup level for high occupancy areas (40 CFR §761.61) of 1 mg/kg. PCB Aroclors 1260 and 1248 were the only detected Aroclors with concentrations greater than 0.1 mg/kg in multiple samples.

Subsurface soil samples were collected from three intervals in six soil borings during the RI in January 2021 (one from the shallow waste/fill material, one from the base of the waste/fill, and one approximately 5 ft below the base of the waste/fill) for a total of 18 samples. Monitoring wells were subsequently constructed in each borehole. Soil from each sample interval was homogenized in a clean stainless-steel bowl using a clean stainless-steel spoon prior to placement in laboratory-supplied glassware. Samples were submitted to Eurofins TestAmerica laboratory of Amherst, New York to be analyzed for PCBs using EPA method 8082A and the approved extraction method at the time of sampling, 3550C. Samples were analyzed in accordance with EPA and NYSDEC Analytical Services Protocols. Total PCB concentrations exceeded the NYSDEC Unrestricted Use Soil Cleanup Objectives of 0.1 mg/kg in 11 samples, at concentrations ranging from 0.18 mg/kg (SB-MW-02 at 8 ft bgs and SB-MW-04 at 13 ft bgs) to 206 mg/kg (SB-MW-04 at 5 ft bgs). Five subsurface soil samples had total PCB concentrations exceeding the EPA cleanup level for high occupancy areas (40 CFR §761.61) of 1 mg/kg. The samples from SBMW-01 and SB-MW-04 had total PCB concentrations greater than 25 mg/kg at a depth of 5 to 11 ft.

Total PCB concentrations in soil samples collected during the RI are summarized in **Table 1-2** in **Appendix C**; locations are shown on **Figure 1-2** in **Appendix A**. The EA 2021 RI Report is provided in **Appendix D**.

1.3.2 Groundwater

In January 2021, during the RI, EA installed nine monitoring wells (MWs), including three nested pairs and three standalone wells. Two rounds of groundwater sampling were completed in February and May 2021 in accordance with EPA low-flow procedures. Samples were not filtered and were collected in laboratory-provided glassware and submitted to Eurofins TestAmerica laboratory to be analyzed for PCBs using EPA method 8082A and the approved extraction method at the time of sampling, 3550C. During the first round of groundwater sampling, the NYSDEC Ambient Water Quality Standards Class GA total PCB value of 0.09 micrograms per liter (µg/L) and the EPA decontamination standard for unrestricted use (40 CFR §761.79) of 0.5 µg/L were exceeded in one sample, collected from MW-04D (0.6 µg/L). During the second round of groundwater sampling, PCBs were not detected in any of the unfiltered groundwater samples collected, including at MW-04D. Groundwater sampling results are provided in the RI Report in **Appendix D**.

It was determined that the groundwater was not impacted, and the single PCB exceedance was associated with the anomalous high turbidity of the unfiltered groundwater sample, and represented PCBs sorbed to suspended solids within the groundwater sample and not dissolved PCBs. This determination was based on the fact that a second groundwater sample from the same location did not report any detected PCBs and all surface water samples collected off-site also did not report any detected PCBs (indicating no migration of PCBs off-site).

1.3.3 Surface Water

A total of eight surface water samples were collected at locations collocated with surface sediment samples. Five samples were collected along the east shoreline of Chemung River west of the Site, and three samples were collected from Narrows Creek south of the Site. Surface water grab samples were collected starting at the furthest downstream location and working upstream; care was taken not to disturb bottom sediment in the vicinity of surface water samples. Samples were collected in laboratory-provided glassware and submitted to Eurofins TestAmerica laboratory to be analyzed for PCBs using EPA method 8082A and the approved extraction method at the time of sampling, 3550C. PCBs were not detected above the method detection limit of 0.5 µg/L in any of the surface water samples.

1.3.4 Sediment

In May 2021, as part of the RI, a total of eight surface sediment samples were collected at locations collocated with surface water samples, following collection of surface water samples to minimize incidental inclusion of suspended sediment in the water samples. Five samples were collected along the east shoreline of Chemung River west of the Site, and three samples were collected from Narrows Creek south of the Site. Sediment grab samples were collected from the 0 to 6-inch interval with a stainless-steel spoon and placed in a stainless-steel bowl lined with a high-density polyethylene plastic bag. Sediment was homogenized in the mixing bowl prior to being placed in laboratory-provided glassware and submitted to Eurofins TestAmerica laboratory to be analyzed for PCBs using EPA method 8082A and the approved extraction method at the time of sampling, 3550C. There were no sediment PCB concentrations that exceeded the EPA

unrestricted use criteria and the NYSDEC Freshwater Sediment Class C Guidance in surface sediment of 1 mg/kg.

1.4 CONCEPTUAL SITE MODEL

Based on historical Site operations, investigations, and characterization activities, the Site became contaminated through landfilling and scrapyard operations. Site characterization activities included on-site soil and groundwater, and off-site surface water and sediment sampling. The analytical data indicated that contamination is limited to vadose zone soil and is contained on-site. The Site is bounded by a steep embankment to the east and a railroad to the west, both of which converge to the north; therefore, it is not likely that Site impacts migrated off-site in these directions. Any potential off-site migration of surface water runoff is limited to the areas at the southern terminus of the Site, where the land slopes down to Narrows Creek. However, sediment, surface water, and groundwater data indicate that PCBs are not impacting these media, nor migrating off-site.

Based on Site characterization data, and supported by prior investigations and historical documentation, PCBs were not released as a result of industrial or manufacturing activities, but are located in isolated areas associated with the disposal of scrap/waste material on-site. Furthermore, the Phase II SI identified the extent of waste material as being contained within the Site boundary. Therefore, because there is no known point discharge area that could be addressed through a “hot spot” removal remedy, and because distribution of the contamination is not uniform, the proposed remedial activities (i.e., placing a clean cover over the entire Site) intends to prevent and/or limit contact with the PCBs and the potential for future contaminant migration.

2. PROJECT ACTIVITIES

2.1 PERMITTING, NOTIFICATIONS, AND CERTIFICATIONS

The project will comply with federal, state, and local laws and regulations, including necessary approvals and permits to conduct the remedial activities and implement this PCB Cleanup Plan. To date, the permitting and administrative requirements listed below are anticipated to be applicable to the project.

2.1.1 Permitting

The following permits are applicable:

- Section 401 Water Quality Certification
- State Pollutant Discharge Elimination System General Permit for Stormwater Discharges from Construction Activities, GP-020-001
- U.S. Fish and Wildlife Service Threatened and Endangered Species List
- New York State Office of Parks, Recreation and Historic Preservation
- Norfolk Southern Environmental Right-of-Entry
- Local permits required for filling or crossing of waterways
- NYSDEC General Permit for Stream Activities, GP-0-20-002
- Town of Corning local permits

2.1.2 Notifications

The Risk-Based Cleanup Application will be made available to the EPA Regional Administrator, the State Director of the environmental protection agency, and the Director of the county or local environmental protection agency in which the cleanup will be conducted via submittal of the PCB Cleanup Plan. As such, the following notifications will be made:

- Application to EPA Region 2 for review and approval of this Risk-Based PCB Cleanup Plan will be made to the individual noted as follows:

  Attn: Mr. Ariel Iglesias
  Division Director
  Land, Chemicals and Redevelopment Division
  EPA Region 2
  290 Broadway
  New York, New York 10007-1866

- A copy of the Final Risk-Based PCB Cleanup Plan will be submitted to the NYSDEC and Steuben County and addressed to the following:

  Mr. Robert Strang
  New York State Department of Environmental Conservation
  625 Broadway, 12th Floor
  Albany, New York 12233-7017

  Environmental Services Hornell District (B0638)
  Serving Schuyler and Steuben Counties
  107 Broadway
  Room 105
  Hornell, New York 14843-0430

Notification will also be made by the generator and/or contractor via written notice, including the estimated quantity of contaminated decontamination water and personal protective equipment to be shipped and highest concentration of PCBs, at least 15 days before the first shipment of bulk PCB remediation waste by the generator, to each off-site facility where the waste is destined for an area not subject to a Toxic Substances Control Act PCB Disposal Approval.

2.1.3 Certification

A written certification is required by 40 CFR §761.61(a)(3)(i)(E), to be signed by the owner and the party conducting the cleanup, and that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, etc., is appended to this Risk-Based PCB Cleanup Plan in **Appendix E**.

While NYSDEC concurs with the text of the written certification, NYSDEC is not considered the legal owner and therefore cannot sign as such. Further, it is unlikely that a representative of the property will sign any required documentation. Per the New York State Environmental Conservation Law (ECL), NYSDEC is provided broad authority to manage, access, and remediate contaminated sites where responsible parties cannot be found or are unable or unwilling to fund an investigation. This Site is considered an orphan/vacated site as there are no anticipated viable responsible parties for the required management and cleanup. As part of the NYSDEC PRAP and ROD, NYSDEC intends to initiate a responsible party search, settlement agreement(s), bankruptcy proceedings, liability releases or other relevant undertaking that may be applicable or available in demonstrating the Site's vacated status.

NYSDEC will subsequently use Environmental Notices to create a public record of the Site's status that will appear in future title searches, since there is no owner to grant an Environmental Easement. The Site will remain on the registry of inactive hazardous waste sites as a Class 2 site unless and until an Environmental Easement is placed on the property.

2.2 POLYCHLORINATED BIPHENYL CLEANUP PLAN

The proposed remedy for the Site described in this PCB Cleanup Plan is intended to ensure that protection of human health and the environment is maintained in perpetuity. Site characterization efforts to date have demonstrated that contamination has not migrated beyond the limits of the property boundaries. The proposed remedy will ensure a reduction and/or elimination of pathways to potential receptors through a combination of institutional controls (ICs) and engineering controls (ECs). ECs include a clean soil cover in accordance with 6 New York Code of Rules and Regulations (NYCRR) Part 375 for mixed use and access restrictions in the form of a chain link fence, locking gate, and signage as shown on **Figure 2-1**. ICs consist of land use controls, limiting future site use that would undermine the ECs. Further PCB Cleanup Plan details are presented in the following sections.

2.2.1 Site Preparation

Debris and vegetation on-site will be cleared prior to light grading with construction support from unexploded ordnance technicians. Site grading would be conducted to create an acceptable subgrade and promote acceptable drainage for stormwater runoff; no soil will be removed from the Site.

2.2.2 Clean Soil Cover

The proposed remedy includes placement of a 2-ft soil cover across the Site, to meet 6 NYCRR Part 375 requirements for mixed use sites[1]. Prior to placement of the soil cover, as shown on **Figure 2-1**, a geotextile demarcation layer will be placed over the entire Site, followed by 2 feet of clean soil and topsoil from an approved off-site source. Soil and topsoil materials will be sampled prior to introduction to the Site and contaminant concentrations shall meet 6 NYCRR Part 375-6.8(b) including verifying PCB concentrations do not exceed 1 mg/kg.

2.2.3 Erosion and Dust Control

Based on the nature of the plan, construction activities may result in the potential of mobilizing Site contaminants via erosion. Erosion control measures, such as a silt fence and silt socks, will be installed as appropriate along the limits of work prior to any Site disturbance. Erosion control measures will be maintained for the duration of the PCB cleanup activities and until vegetative cover has been established as part of Site restoration (Section 3.2.5).

Dust control will be conducted to protect Site workers and prevent off-site migration of Site contaminants during construction activities until completion of soil cover placement and seeding. A Community Air Monitoring Plan will be developed as part of the Health and Safety Plan and will include perimeter particulate monitoring along with volatile organic compound monitoring. Dust will be controlled using water mist as needed to maintain compliance with the Community Air Monitoring Plan.

1 The NYSDEC Division of Fish and Wildlife requested the soil cover be 2 feet thick to ensure protection to ecological receptors

The National Ambient Air Quality Standard for Respirable Particulates (defined as particulate matter less than 10 microns in diameter) level is 150 micrograms per cubic meter. Community dust exposure from construction activities should not exceed 150 micrograms per cubic meter above the background level. In cases where there is potential for exposure to dust-borne contaminants of concern, a lower action level may be established.

If air monitoring results indicate concentrations of respirable particulates greater than the action level (excluding background levels), dust suppression shall be implemented.

2.2.4 Decontamination Procedures

Site grading equipment will be decontaminated prior to leaving the Site in accordance with 40 CFR §761.79(c). Decontamination of equipment that has come in contact with Site contaminants will be conducted following grading and soil placement activities and prior to the equipment leaving the Site to minimize the potential spreading of contamination on-site and off-site. Decontamination will be conducted on a decontamination pad and waste generated during decontamination activities would be containerized in 55-gallon drums, labeled, and properly disposed of in accordance with 40 CFR §761.79(b)(1) and (b)(2).

2.2.5 Site Restoration

The woodchips generated from vegetation clearing and grubbing shall remain on-site and are proposed to be incorporated into or placed atop the cover as part of Site restoration. Site restoration will consist of seeding the soil cover with shallow root native grasses to promote cover stability and minimize erosion.

2.2.6 Site Management

After the remedy is complete, a Site Management Plan (SMP) will be developed. The SMP will provide a description of the Site along with the institutional controls (ICs) and ECs put in place. The intent of the SMP is to ensure contamination remains inaccessible through continued monitoring and maintenance of the ECs (i.e., soil cover, chain-link fence and locking gate, and warning signs installed around the perimeter of the Site). Monitoring will consist of periodic inspections and maintenance of the ECs and long-term groundwater monitoring at the well closest to Narrows Creek.

The SMP will also document the ICs that are put in place to reduce the risk of human contact with PCBs as well as the munitions debris and potential munitions of explosive concern. As described in Section 2.1.3, NYSDEC will use an Environmental Notice to create a public record of the Site's remedial status that will appear in future title searches. The Site will remain on the registry of inactive hazardous waste disposal sites as a Class 2 site unless and until an Environmental Easement is placed on the property. The Environmental Notice will limit Site use to commercial use, prohibiting disturbance of soil cover and prohibiting use of groundwater.

The Site will be managed by NYSDEC until such time as the property is sold. Per the ECL, NYSDEC has broad statutory authority to access contaminated sites, including vacated sites, and to send notice to the last known owner address and document reasonable efforts to provide such

notice to exercise the right of access if warranted. The SMP will include provisions should the Site properties be sold, including transfer of Site management responsibilities pursuant to 6 NYCRR 375-1.11(d). In the event that the NYSDEC is approached regarding a future change of ownership, the responsibility for performing Site management and placement of an environmental easement will be negotiated.

In addition, NYSDEC will include a provision in the applicable ROD and SMP for further investigation and remediation should large scale redevelopment occur at the Site, the use of the properties change, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the NYSDEC. Based on the results of those investigations and the NYSDEC's determination of the need for a remedy, a Remedial Action Work Plan, if required, will be developed and include removal and/or treatment of any source areas, to the extent feasible. Citizen Participation Plan activities will occur throughout this process. Any necessary remediation will be completed prior to, or in association with, redevelopment.

2.3 RECORD KEEPING

Records documenting completion of the PCB cleanup at the Site will be maintained by the NYSDEC Division of Environmental Remediation for a period of no less than 5 years in accordance with 40 CFR §761.61(a)(9). Records will be maintained in its electronic system, DEC InfoLocator, and/or at the following address:

NYSDEC
Division of Environmental Remediation
625 Broadway
Albany, New York 12233
(518) 402-8642

2.4 ANTICIPATED PROJECT SCHEDULE

The work described in this PCB Cleanup Plan will be performed by a team that is selected by the NYSDEC. The team will consist of the NYSDEC, a qualified engineer to direct the remediation and management of soil and other wastes generated by this project, and a contractor to carry out the construction activities. The schedule to perform the subject remediation is dependent on the completion of the bid and contracting process, as well as other factors. With these caveats, the anticipated schedule to implement the proposed remedial actions described in this plan is provided as follows:

Project Element	Estimated Completion Timeframe
Submittal of Risk Based PCB Cleanup Plan to EPA	January 2025
Receipt of Plan Approval	February 2025
Preparation of Proposed Remedial Action Plan and public comment period	December 2024 – February 2025
Issuance of Record of Decision	March 2025
Preparation of remedial design contract documents	March – June 2025
Contractor bidding process and award	June – September 2025
Remediation	December 2025 – January 2026
Prepare final engineering report and submit to NYSDEC and EPA	January – March 2026

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3. REFERENCES

ARGO Systems, LLC and its subcontractor EA Engineering, P.C. and its affiliate EA Science and Technology (The ARGO Team). 2010. *Phase II Site Investigation Report, Corning Materials Site, Hamlet of Gibson, Town of Corning, Steuben County, New York*. June.

Fagan Engineers. 1998. *Phase I Environmental Site Assessment, Corning Waste Materials, Inc, Tax Map #318.00-01-03.00, Town of Corning, New York*. January.

NYSDEC. 2022a. *Environmental Resource Map*. Date accessed 7 April 2022. https://gisservices.dec.ny.gov/gis/erm/

———. 2022b. *List of Endangered, Threatened, and Special Concern Fish and Wildlife Species of New York State*. Last Modified 4 May 2015. https://www.dec.ny.gov/animals/7494.html

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Appendix A

Figures

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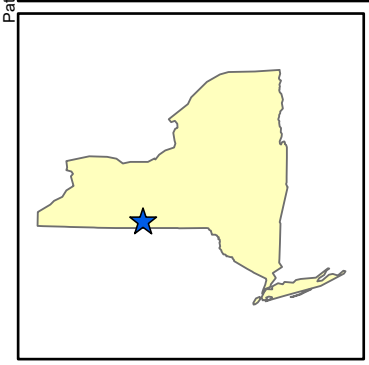


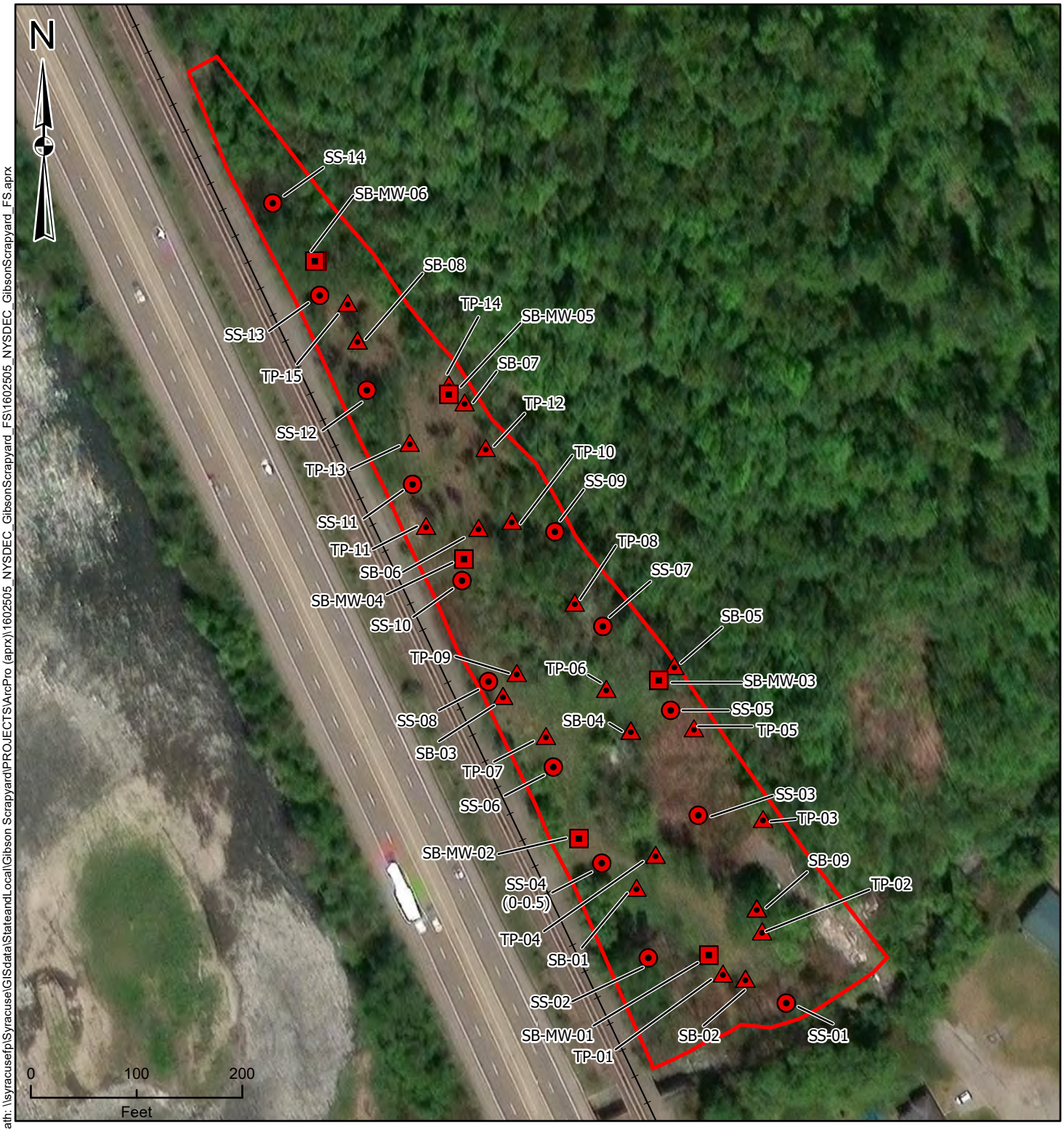
Legend

- Site Location
- Site Boundary
- Norfolk Southern Railroad

Figure 1-1
Site Location
Gibson Scrapyard (851058)
Gibson, New York

Data Source: NYS GPO 2022, Imagery: ESRI 2018

NEW YORK STATE | Department of Environmental Conservation



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Legend

- Site Location
- Site Boundary

Soil Sample (Year)

- 2010
- 2019
- 2021
- Norfolk Southern Railroad

Imagery: ESRI 2018

Figure 1-2
Characterization Locations
Gibson Scrapyard (851058)
Gibson, New York

NEW YORK STATE | Department of Environmental Conservation

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Legend

- Site Location
- Site Boundary
- Fence Line
- 6 NYCRR Part 375 Soil Cover - 2 ft
- Gate
- Norfolk Southern Railroad

Note:
ft = foot (feet)
NYCRR = New York Codes, Rules, and Regulations
PCB = Polychlorinated biphenyl

Imagery: ESRI 2018

Figure 2-1
PCB Cleanup Plan Layout
Gibson Scrapyard (851058)
Gibson, New York

NEW YORK STATE Department of Environmental Conservation

Appendix B

Pathway Analysis Report

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Human Health Pathway Analysis Report
Gibson Scrapyard (Site: 851058)

Steuben County, Corning, New York

Prepared for

New York State Department of Environmental Conservation
Division of Environmental Remediation
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Albany, New York 12233-7012

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June 2024
Version: DRAFT
EA Project No. 1602505

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LIST OF ACRONYMS AND ABBREVIATIONS

95UCLM	95th percentile upper confidence limit on the mean
µg/m^3	Microgram per cubic meter
ABS	Absorption factor
ADI	Average daily intake
AF	Adherence factor
ARGO	ARGO Systems, LLC
AT	Averaging time
AWQS	Ambient Water Quality Standards
bgs	Below ground surface
BW	Body weight
CF	Conversion factor
cm^2	Square centimeter
COPC	Chemical of potential concern
CSM	Conceptual site model
DA	Absorbed dose
EA	EA Engineering, P.C. and its affiliate EA Science and Technology
EC	Exposure concentration
ED	Exposure duration
EF	Exposure frequency
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ESA	Environmental Site Assessment
ET	Exposure time
FS	Feasibility Study
ft	Foot (feet)
GIABS	Gastrointestinal dermal absorption factor

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

HI	Hazard index
HQ	Hazard quotient
IR	Ingestion rate
IRIS	Integrated Risk Information System
IUR	Inhalation unit risk
kg	Kilogram
kg/mg	Kilogram(s) per milligram
K_{oc}	organic-carbon partition coefficient
K_{OW}	octanol-water partition coefficient
LADI	Lifetime average daily intake
LOAEL	Lowest-observed-adverse-effect-level
mg/kg	Milligram(s) per kilogram
mg/kg/day	Milligram(s) per kilogram per day
mg/m^3	Milligram(s) per cubic meter
NOAEL	No-observed-adverse-effect-level
NYCRR	New York Code, Rules and Regulations
NYSDEC	New York State Department of Conservation
PAR	Pathway Analysis Report
PCBs	Polychlorinated biphenyls
PEF	Particulate emission factor
RAGS	Risk Assessment Guidance for Superfund
RAOs	Remedial Action Objectives
RBPCP	Risk-based PCB Cleanup Plan
RfD	Reference dose
RI	Remedial Investigation
RL	Reporting limit
RPTS	Real Property Tax Service
RSL	Regional screening level
SA	Surface area
SCOs	Soil Cleanup Objectives
SF	Slope factor
SI	Site Investigation
Site	Gibson Scrapyard
SVOCs	Semi-volatile organic compounds

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

TSCA	Toxic Substance Control Act
UF	Uncertainty factor
VF	Volatilization factor
VOCs	Volatile organic compounds

1. INTRODUCTION

This Pathway Analysis Report (PAR) was prepared for the New York State Department of Environmental Conservation (NYSDEC) by EA Engineering, P.C. and its affiliate EA Science and Technology (EA), under Work Assignment No. D009806-05. The PAR provides an evaluation of current and future exposure scenarios for receptors potentially exposed to polychlorinated biphenyls (PCBs) at the Gibson Scrapyard Site (Site). The PAR evaluates whether recommended remedial measures are sufficient to mitigate or eliminate potential concerns associated with human health and the environment.

The Site is located at 2972 Main Street site (NYSDEC Site No. 851058) in the Hamlet of Gibson, Town of Corning, Steuben County, New York (**Figure 1-1**). The Site consists of three parcels, owned by Corning Waste Materials Inc. The environmental remediation is being managed by NYSDEC. The Site is listed as a Class 2 site in the State Registry of Inactive Hazardous Waste Sites (list of State Superfund sites), meaning that the site represents a significant threat to public health or the environment, and action is required.

1.1 PURPOSE AND SCOPE

This PAR was prepared to support the Risk-Based PCB Cleanup Plan (RBPCP). The PAR details complete and potentially complete exposure pathways for human receptors to the Site. The identification of complete and potentially complete exposure pathways will assist in the determination that the recommended alternative mitigates or eliminates these exposure pathways. The identification and discussion of complete and potentially complete exposure pathways follows the U.S. Environmental Protection Agency (EPA) four-step process: hazard identification, exposure assessment, toxicity assessment, and risk characterization.

The PAR follows guidance as recommended by EPA, including EPA Toxic Substances Control Act (TSCA) guidance *Pathway Analysis Report, New York TSCA PCB Sites*. Specific application of guidance throughout the risk assessment process is detailed in the subsequent sections of the PAR. The following guidance documents were used for this PAR:

- Risk Assessment Guidance for Superfund (RAGS), *Volume I: Human Health Evaluation Manual (Part A) (Interim Final)*, EPA/540/1-89/002 (EPA 1989)
- RAGS, *Volume I: Human Health Evaluation Manual Supplemental Guidance – Standard Default Exposure Factors* (Interim Final), Publication 9285.6-03 (EPA 1991a)
- RAGS, *Volume I – Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals)*, EPA/540/R-92/003 (EPA 1991b)
- *Guidance Guidelines for Data Usability in Risk Assessment (Part A)*. Office of Solid Waste and Emergency Response 9285.7-09A (EPA 1992)

- RAGS, *Volume I: Human Health Evaluation Manual (Part D, Standardized Planning, Reporting and Review of Superfund Risk Assessments),* Office of Emergency and Remedial Response 9285.7-47 (EPA 2002a)

- *Human Health Toxicity Values in Superfund Risk Assessments,* OSWER 9285.7-53 (EPA 2003)

- RAGS, *Volume I: Human Health Evaluation Manual (Part E: Supplemental Guidance for Dermal Risk Assessment)* Final, Office of Superfund Remediation and Technology Innovation, EPA/540/R/99/005 (EPA 2004)

- *Guidelines for Carcinogen Risk Assessment*, Risk Assessment Forum, EPA/630/P-03/001F (EPA 2005a)

- *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*, Risk Assessment Forum, EPA/630/R-03/003F (EPA 2005b)

- RAGS, *Volume I: Human Health Evaluation Manual (Part F: Supplemental Guidance for Inhalation Risk Assessment)*, Final, Office of Superfund Remediation and Technology Innovation, EPA-540-R-070-002 (EPA 2009)

- *Exposure Factors Handbook*: *2011 Edition*, EPA/600/R-090/052F (EPA 2011)

- *Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Exposure Factors*, OSWER Directive 9200.1-120 (EPA 2014)

2. HAZARD IDENTIFICATION

This section describes the site location, description, history, and contamination to support the evaluation of human receptors and complete exposure pathways at the Site. In addition, this section presents the analytical data for PCBs in site media evaluated in this PAR and identifies chemicals of potential concern (COPCs). A detailed description of site history and contamination is presented in Section 2 of the RBPCP.

2.1 SITE DESCRIPTION AND HISTORY

The Gibson Scrapyard comprises a 3.2-acre parcel at the end of Main Street in the Hamlet of Gibson, Town of Corning, Steuben County, New York (**Figure 1-1**). The Site is located in a rural residential and undeveloped area consisting of three tax parcels owned by Corning Materials Inc.: 318.00-01-003, 318.11-01-041, and 318.11-01-001 (zoned by the Town of Corning as vacant commercial land) Steuben County Real Property Tax Service [RPTS] 2024). The Site is bounded by Narrows Creek to the south, the Norfolk Southern Railroad and Interstate-86 to the west, and a steep wooded hillside to the east and north. Narrows Creek flows to the southwest and drains into the Chemung River, which flows south past the Site. The Norfolk Southern Railroad tracks are located approximately 25 feet (ft) west of the site boundary.

The property is accessed via a partially paved road at the end of Main Street, located on the south end of the Site. A small steel bridge crosses over Narrows Creek and connects Main Street with the Site. Vehicle access to the Site is blocked by concrete blockades on the bridge; however, the Site can be accessed by the right-of-way along the eastern side of the Norfolk Southern railroad. The southern half of the Site is overgrown with knee- to waste-high grasses, shrubs, and brush, while the northern portion of the Site contains open areas with little to no vegetative growth. A concrete slab-on-grade foundation (measuring approximately 40 ft × 40 ft), associated with a former weigh station, is located in the central portion of the Site. The ground surface at the southern end of the Site is covered with metal and other small debris including tires, tubing, hose, and piping. Two separate areas of the Site contain mounds of concrete, asphalt, and soil/gravel fill materials deposited onsite during construction activities for the nearby Interstate-86 (**Figure 1-2**).

A Phase I Environmental Site Assessment (ESA) identified the Corning Materials facility, a metal scrap recycler, operated at the Site from 1950 to the mid-1980s (Fagan Engineers 1997). The Site was also reportedly operated as an industrial waste landfill from about 1940 to 1950. Industrial waste was accepted from Ingersoll Rand, Corning Glass, Westinghouse, and General Electric (Fagan Engineers 1998). Industrial wastes included World War II munitions materials, PCB oil, lead powder, and drums of solvents that were reported to be buried at depths of up to 15 ft below ground surface (bgs). The Site was listed as a Resource Conservation and Recovery Information System large quantity generator for hazardous waste. Additionally, the facility historically detonated munitions onsite.

A Phase I Brownfields ESA identified multiple recognized environmental conditions at the Site, including metal and industrial wastes, no or stressed vegetation, and an onsite spill of petroleum

products (ARGO Systems, LLC [ARGO] 2009). A Phase II Site Investigation (SI) was completed in February 2010 that included the collection of soil samples from test pits and borings, groundwater samples from temporary monitoring wells, and surface water samples from Narrows Creek (ARGO 2010).

PCBs and metals were detected in soil samples collected as part of the Phase II SI from approximately 0 to 20 ft bgs. Concentrations of PCBs, lead, chromium, and mercury exceeded the New York Codes, Rules and Regulations Title 6 (6 NYCRR) Part 375 Soil Cleanup Objectives (SCOs) for Unrestricted Use. The maximum concentrations of PCBs, lead, chromium, and mercury in surface soil were 103 milligrams per kilogram (mg/kg), 14,400 mg/kg, 1,970 mg/kg, and 12.5 mg/kg, respectively. The maximum concentrations of PCBs, lead, chromium, and mercury in subsurface soil were 110 mg/kg, 10,700 mg/kg, 2,100 mg/kg, and 18.5 mg/kg, respectively.

Analytical results indicated that overburden soil was impacted with PCB contamination, likely resulting from historical landfill activities at the Site. Analytical results for TAL metals indicated that shallow soil (0 to 5 ft bgs) was consistently impacted with high levels of metals across the entire Site, while deeper overburden soils were impacted in locations where signs of historical landfill activities were evident. Several volatile organic compounds (VOCs) were detected in groundwater, with concentrations of petroleum-related VOCs (benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether) greater than NYSDEC Class GA ambient water quality standards (AWQS). Contaminants were not detected in surface water samples collected from Narrows Creek at concentrations greater than the NYSDEC AWQS for surface water.

A qualitative human exposure assessment indicated that there were both complete and potential pathways through which onsite and offsite populations could be exposed to potentially hazardous materials related to the Site (ARGO 2010). The Phase II SI Report concluded that the surface condition of the property, in its current state, presents a physical hazard for human health and wildlife and should be addressed to protect human health and the environment. The report recommended completion of a Remedial Investigation (RI) and Feasibility Study (FS) to characterize the Site and identify potential remedial action alternatives.

An RI and FS was completed for the Site to further investigate potential contamination and present remedial alternatives (EA 2022, 2023). The RI included soil, groundwater, surface water, and sediment sampling. Analytical results collected during the RI were evaluated in this PAR. A full discussion of field investigation, analytical parameters, and overall nature and extent of contamination are presented in the RI report (EA 2022). **Figure 2-1** presents the location of the RI samples. The following presents a summary of samples collected as part of the RI:

- Surface soil was collected from 14 locations over an approximate 100 square foot grid-based sampling design. Samples were collected over a depth interval of 0-6 inches.

- Subsurface soil samples were collected during soil boring and monitoring well installation. Three grab samples were collected at each of the 6 boreholes (1 from the shallow waste/fill

material, 1 from the base of the waste/fill, and 1 approximately 5 ft below the base of the waste/fill for a total of 18 samples).

- Two rounds of groundwater monitoring were conducted. The first round was conducted from 24 to 25 February 2021 and the second round was conducted from 26 to 27 May 2021. During both rounds of groundwater sampling, monitoring wells MW-06, MW-04S, and MW-02S were dry and MW-05 contained an insufficient volume of water and could not be adequately purged. Of the remaining 5 monitoring wells, MW-01S, MW-01D, and MW-02D were purged and sampled successfully during both rounds of sampling. Monitoring wells MW-03 and MW-04D went dry while purging during the first round of groundwater sampling and were subsequently sampled following recharge; these wells did not go dry during the second round of sampling.

- Surface water and sediment samples were collected from three locations along Narrows Creek and five locations along the Chemung River (located to the west of the site). Sediment was collected over a depth interval from 0 to 6 inches.

2.2 DATA EVALUATION

Data collected during the RI were used in this PAR to quantitatively evaluate potential human exposures to PCBs. Other chemicals were identified above the NYSDEC SCO for unrestricted use. However, PCBs are the only substance evaluated in this PAR. Metals and semi-volatile organic compounds (SVOCs) have been identified as potential concerns for the purpose of remediation. These compounds are co-located with PCBs; therefore, only PCBs are evaluated further in accordance with TSCA risk-based cleanup guidance and EPA guidance titled *Pathway Analysis Report, New York TSCA PCB Sites*.

2.2.1 Data Quality

The RI report, Section 4.2, discusses the results of the third-party data validation (EA 2022). Validated results were either qualified or unqualified. Unqualified results were used as reported. Qualified results were annotated with codes as defined by the National Functional Guidelines as provided in the data validation reports. The inclusion or exclusion of data on the basis of analytical qualifiers was performed in accordance with EPA guidance (EPA 1989, 1992). The following procedures were followed if qualifiers were present:

- Analytical results bearing the “U” and “UJ” qualifier (indicating that the analyte was not detected at the given reporting limit [RL]) were retained in the data set and considered non-detects at the given RL.

- Analytical results for analytes bearing the “J” qualifier (indicating that the reported value was estimated because the analyte was detected at a concentration below the RL or for other reasons) were retained at the reported concentration.

- Analytical results for analytes bearing the "R" qualifier (indicating that the data are rejected due to serious deficiencies in meeting quality control criteria) were not considered in the PAR. It is noted that no analytical results for PCBs were rejected during the data validation.

If duplicate samples were collected, the following guidelines were employed to select the appropriate sample measurement:

- If both samples show that the analyte was present, the maximum detected concentration of the two results was retained in the dataset.

- If both samples show non-detect values, the minimum of the two non-detect RLs was retained in the dataset.

- If only one sample indicated that the analyte was present, it was retained in the dataset and the non-detect value was discarded.

2.3 SELECTION OF CHEMICALS OF POTENTIAL CONCERN

COPCs were selected based upon risk-based screening and comparison to applicable standards. Analytes detected at concentrations that exceed their respective risk-based screening criteria do not necessarily represent a health concern. Instead, the results of the screening identify those analytes that warrant a more detailed, site-specific evaluation to determine whether health effects may occur. Risk-based screening was conducted by comparing maximum detected analyte concentrations to screening criteria. Any analyte for which the maximum measured concentration exceeded the screening criteria was retained as a COPC. Screening criteria are presented in **Tables 2-1 through 2-5**.

The following screening criteria were used:

- EPA Regional Screening Levels (RSLs), Residential and Industrial Soil RSLs for Aroclors at a target risk of 1E-06 and an HI of 0.1 (EPA 2024a),

- 6 NYCRR Part 375 Environmental Remediation Programs SCOs (NYSDEC 2023; as amended), Unrestricted Use SCOs (0.1 mg/kg),

- EPA RSLs, tap water RSLs for Aroclors at a target risk of 1E-06 and an HI of 0.1 (EPA 2024a),

- NYCRR Part 703.5 Surface Water Quality Standards, as presented in the Division of Water Technical and Operational Guidance Series 1.1.1, 1998, as amended.

For soil samples, surface soil was defined as the top 0 to 6 inches. Subsurface soil was considered greater than 6 inches bgs. Soil samples for the RI were collected to depths up to 25 ft bgs. PCBs

that were identified as COPCs for further evaluation are identified in **Table 2-1**. The following presents a summary of the COPCs identified.

Chemicals of Potential Concern

Analyte	CAS No.	Surface Soil	Subsurface Soil	Surface Water	Sediment	Groundwater
PCB Aroclor 1016	12674-11-2	No	No	No	No	No
PCB Aroclor 1221	11104-28-2	No	No	No	No	No
PCB Aroclor 1232	11141-16-5	No	No	No	No	No
PCB Aroclor 1242	53469-21-9	No	**Yes**	No	No	No
PCB Aroclor 1248	12672-29-6	**Yes**	No	No	No	**Yes**
PCB Aroclor 1254	11097-69-1	No	**Yes**	No	No	No
PCB Aroclor 1260	11096-82-5	**Yes**	**Yes**	No	**Yes**	**Yes**
PCB Aroclor 1262	37324-23-5	No	No	No	No	No
PCB Aroclor 1268	1110-14-4	No	No	No	No	No

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3. EXPOSURE ASSESSMENT

In the exposure assessment, the receptors of concern and potential exposure pathways are identified. The COPCs in site environmental media are converted into systemic doses, taking into account contaminant concentrations, rates of contact (e.g., ingestion rates), and absorption rates of different COPCs. The magnitude, frequency, and duration of these exposures are then integrated to obtain estimates of daily doses over a specified period of time (e.g., lifetime, activity-specific duration).

The exposure assessment includes several steps:

- Evaluating the exposure setting, including a description of the site current and future land uses, adjacent property land uses, and the potentially exposed human populations.

- Developing a conceptual site model (CSM) that identifies the source of contamination, contamination transport and release mechanisms, exposure media, exposure routes, and potentially exposed populations.

- Calculating exposure point concentrations (EPCs) for each COPC for each of the complete exposure pathways identified in the CSM.

- Identifying the exposure models and parameters with which to calculate the exposure doses.

3.1 EXPOSURE SETTING

The Site is a former industrial waste landfill and metal scrap recycling facility located in the hamlet of Gibson, Town of Corning, Steuben County, New York (**Figure 1-1**). Site boundaries include Narrows Creek to the south, a railroad track and Interstate-86 to the west, a small residential property to the southeast, and a steep wooded hillside to the east and north (**Figure 1-2**). The parcels are currently zoned as vacant commercial land (Steuben County RPTS 2024). The properties surrounding the Site are primarily residential.

The Site is currently unoccupied. A partially paved access road leads to the Site, crossing Narrows Creek by a small steel bridge to the south. Vehicles are blocked from crossing the bridge by concrete blockades. The ground surface at the Site is covered with metal and other small debris including tires, tubing, hose, and piping. A concrete slab-on grade foundation for a former weigh station is located in the central portion of the property. Two separate areas of the property contain mounds of concrete, asphalt, and soil/gravel fill materials deposited onsite during construction activities for the nearby Interstate-86.

No fences or other blockades are present to prevent people from accessing the site. The Site can be accessed by the bridge located on North Main Street and along the right of way located on the eastern side of the railroad. Household waste present onsite suggests that the general public historically have accessed the site to use for illicit waste disposal practices. In addition, people

have been observed riding all-terrain vehicles on the property and accessing the site via railroad right of way (ARGO 2010).

The nearest surface water body is Narrows Creek, which is located adjacent to the southern boundary of the site. Narrows Creek flows toward the Chemung River, which is located west of the site. Both Narrows Creek and the Chemung River are designated as Class C water bodies, meaning that they are protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival, and maintenance of biological integrity, and agriculture (EA 2022). There are no discernible channels or conduits at the Site that would collect and influence the flow of surface water runoff. It is generally expected that for the majority of the Site, any precipitation or other surface water runoff would infiltrate into the subsurface and recharge local groundwaters. The Site is flanked by a steep wooded cliff to the east and a railroad berm to the west and pinches out to the north where the cliff and berm meet. Any offsite migration of surface water is limited to the areas at the southern terminus of the Site, where the land slopes down to Narrows Creek.

The Site and surrounding area are supplied with public sewer and water from the Town of Corning. Bedrock beneath the Site is shallow, ranging from roughly 12 to 15 ft bgs at the north end of the Site and dipping southward to depths below 40 ft (EA 2022). There is no groundwater usage as a water supply documented at the Site or in the surrounding area (ARGO 2010; EA 2022).

3.2 CONCEPTUAL SITE MODEL

Based upon the site history and exposure setting, a CSM was formulated for the Site. The CSM presents the potential sources of contamination, routes of migration, and current and future receptors. Exposure pathways begin from potential source areas and progress through the environment via fate and transport processes to potential human receptors. **Figure 3-1** illustrates the CSM. The CSM identifies which exposure pathways are complete or potentially complete. An exposure pathway describes a mechanism by which a population or individual may be exposed to COPCs at the site. A completed exposure pathway requires the following four components:

- Source and mechanism of chemical release to the environment
- Environmental transport medium for the released chemical
- Point of potential human contact with the contaminated medium
- Human exposure route at the point of exposure.

All four components must exist for an exposure pathway to be complete and for exposure to occur. Incomplete exposure pathways do not result in actual human exposure and are not included in the exposure assessment and resulting risk characterization.

3.2.1 Source Areas

The primary source area for the site is the former usage as an industrial landfill and metal recycling facility. This includes wastes identified on the ground surface and below the ground surface throughout the Site.

3.2.2 Migration Pathways

The following migration pathways are present at the site:

- Air Particulate Transport
- Leaching to Groundwater
- Groundwater Transport
- Surface Water Runoff.

PCBs were only detected in one (monitoring well location MW-4D) out of 10 groundwater samples. The concentration of PCBs in this well may be attributed to the presence of fine solids and mobile particulates that remained in the well after development and were collected with the aqueous sample as noted in the RI report (EA 2022). PCBs were not detected in subsequent groundwater samples collected in February 2021 from this or any other well. Therefore, the PCBs detected in the one groundwater sample were likely a result of soil particles that were mobilized through the sampling process (EA 2022). This is primarily due to the low water solubility and high octanol-water partition coefficient (K_{OW}) and organic-carbon partition coefficient (Koc) values of PCBs. PCBs are typically strongly sorbed to soils and resistant to extensive leaching or migration. Therefore, the groundwater transport of site contamination is considered a minor and/or insignificant migration pathway due to the presence of the glaciolacustrine silty clay that acts as an aquitard to prevent vertical and horizontal migration. While the discharge of shallow groundwater to onsite surface water bodies can occur, this is also considered a minor migration pathway due to the glaciolacustrine silty clay and low water solubility and high K_{OW} and Koc values of PCBs, which typically sorb to soil/sediment.

Any offsite migration of surface water is limited to the areas at the southern end of the Site, where the land slopes down to Narrows Creek. Additionally, only Aroclor 1260 was detected in one out of nine sediment samples. No PCBs were detected within surface water samples. Therefore, the transport of site contamination via surface water runoff or surface water migration are also minor migration pathways.

3.2.3 Media of Concern

Based upon the results of the screening and the migration pathway analysis, the only media of concern at the site are surface and subsurface soil. As noted above, groundwater, surface water/sediment are minor and/or insignificant migration media. Additionally, the results of the RI determined that groundwater, surface water, and sediment are not significantly impacted by the Site (EA 2022).

3.2.4 Receptors of Concern

Sample results from the RI only revealed potential impacts to onsite environmental media (i.e., soil). As a result, only potential onsite receptors are considered receptors of concern. Offsite

migration of site contamination has not been identified, and offsite receptors are not considered a concern.

Current Receptors

The site is currently vacant and has a varied landscape with areas of little to no vegetation, areas with shrubs and small trees, a 40 ft × 40 ft concrete slab, and mounds of construction debris covered in grass. No fences or blockades are in place to prevent people from accessing the Site. All-terrain vehicles were witnessed accessing the site via the railroad right of way. As a result, current onsite receptors would include trespassers. The trespasser is only expected to contact surface soil. The following exposure pathways are considered complete for the trespasser:

- Incidental ingestion of and dermal contact with surface soil, and
- Inhalation of chemicals adsorbed to soil particulate released to outdoor air.

Additionally, current onsite receptors could also include adult workers (i.e., construction/utility workers). Utilities intersecting with the Site include an overhead electric utility line in the south-east corner of the Site, and roughly 160 ft of a fiber optic line that runs from east to west in the southern part of the Site. There is also an electrical cabinet located in the southwest corner of the Site. Because the worker may perform subsurface excavation, a worker is expected to contact surface soil and subsurface soil. The following exposure pathways are considered complete for the worker:

- Incidental ingestion of and dermal contact with soil, and
- Inhalation of chemicals adsorbed to soil particulate released to outdoor air.

Future Users

There is a potential for the site to be redeveloped. As a result, future users may include the current users (i.e., construction/utility workers and trespassers) and other users who may contact the Site due to redevelopment. Redevelopment of the Site will likely be restricted to commercial land use. Future receptors may include commercial/industrial workers and adult and child visitors to commercial/industrial establishments. Any redevelopment of the Site is likely to require significant grading and/or digging which would result in mixing of surface and subsurface soil. Therefore, these receptors are likely to contact a combined surface soil and subsurface soil. The current zoning for the Site is commercial; however, residential properties are located within the immediate surrounding area. Therefore, residents are considered a potential future receptor. Similarly, residential reuse of the Site would likely result in grading and/or digging that would result in a combined surface soil and subsurface soil. The following exposure pathways are considered complete for future receptors:

- Incidental ingestion of and dermal contact with soil, and
- Inhalation of chemicals adsorbed to soil particulate released to outdoor air.

3.3 EXPOSURE POINT CONCENTRATIONS

The EPC represents the concentration of COPCs in media of concern that a potential receptor is expected to contact over a designated exposure period. Reported concentrations of COPCs, as discussed in Section 2.2.1, were used to calculate the 95 upper confidence limit of the mean (95UCLM) (EPA 1989, 1992). The 95UCLM represents a conservative estimate of the average concentration of a chemical across the site (EPA 1989). The 95UCLM was determined through the EPA ProUCL program version 5.2 (EPA 2022). The EPA ProUCL program determines the distribution, variance, and 95UCLM of each COPC data set (EPA 2022). The EPC is based on the lesser of the maximum detected concentration for a medium or the 95UCLM (EPA 1989, 2022). **Tables 3-1 and 3-2** present the EPCs for each medium of concern (surface and subsurface soil). These tables also include the rationale for EPC selection. Outputs for the ProUCL program are included in **Attachment 1**.

Review of the EPCs in comparison to the NYSDEC Unrestricted Use SCO of 0.1 mg/kg and Industrial Restricted Use SCO of 25 mg/kg and the EPA Residential Soil and Industrial Soil RSLs (EPA 2024a) indicates that the EPCs are greater than all screening criteria in surface soil and subsurface soil.

3.4 EXPOSURE INTAKE EQUATIONS

The next step in the exposure assessment is to estimate chemical intake or exposure for each exposure pathway for each receptor considered in the PAR. In the exposure assessment, two different measures of intake are provided, depending on the nature of the effect being evaluated. When evaluating longer-term (i.e., chronic) exposures to chemicals that produce adverse non-carcinogenic effects, intakes are averaged over the period of exposure (i.e., the averaging time [AT]) (EPA 1989). This measure of intake is referred to as the average daily intake (ADI) and is a less than lifetime exposure. For chemicals that produce carcinogenic effects, intakes are averaged over an entire lifetime and are referred to as the lifetime average daily intake (LADI) (EPA 1989). Detailed equations for determining intake are provided below and on **Tables 4-1 through 4-5**.

The generic equation to calculate ingestion intake from soil is given below:

$$(L)ADI = \frac{EPC \; x \; IR \; x \; EF \; x \; ED \; x \; CF}{BW \; x \; AT}$$

where:

(L)ADI	=	(Lifetime) average daily intake (mg/kg per day [mg/kg/day])
EPC	=	COPC Concentration in soil (mg/kg)
IR	=	Ingestion Rate (milligrams per day)
EF	=	Exposure frequency (days/year)
ED	=	Exposure duration (years)
BW	=	Body weight (kilograms [kg])
AT	=	Averaging time (days) Non-carcinogen (ED × 365 days/year)

Carcinogen (70 years × 365 days/year = 25,550 days)

CF = Conversion Factor (10^{-6} kilograms per milligram [kg/mg]).

The generic equation to calculate dermal intake from soil is given below:

$$(L)ADI = \frac{EPC \; x \; SA \; x \; DA \; x \; EF \; x \; ED \; x \; CF}{BW \; x \; AT}$$

where:

(L)ADI = (Lifetime) Average daily intake (mg/kg/day)
EPC = Concentration of a COPC in soil (mg/kg)
SA = Surface Area for Contact (square centimeters [cm^2])
DA = Absorbed Dose
DA = Absorption Factor (ABS) × Adherence Factor (AF) (mg/cm^2)
EF = Exposure frequency (days/year)
ED = Exposure duration (years)
BW = Body weight (kg)
AT = Averaging time (days)
Non-carcinogen (ED × 365 days/year)
Carcinogen (70 years × 365 days/year = 25,550 days)
CF = Conversion Factor (10^{-6} kg/mg).

The intake of particulates in air from soil was calculated using the following equation (EPA 2009):

$$EC = \frac{C_{air} \; x \; ET \; x \; EF \; x \; ED \; x \; CF_1}{AT \; x \; CF_2}$$

where:

EC = Exposure concentration (milligrams per cubic meter [mg/m^3] or micrograms per cubic meter [$\mu g/m^3$])
C_{air} = Concentration of chemical in air (mg/m^3)
ET = Exposure time (hours)
EF = Exposure frequency (days/year)
ED = Exposure duration (years)
CF_1 = Conversion Factor (1,000 micrograms per milligram)
(carcinogenic intakes only)
CF_2 = Conversion Factor (24 hours/day)
AT = Averaging time (days)
Non-carcinogen (ED × 365 days/year)
Carcinogen (70 years × 365 days/year = 25,550 days).

The concentration of chemicals in air resulting from windblown particulates is developed following procedures presented in the EPA *Supplemental Soil Screening Guidance* (EPA 2002b). The chemical concentration in air is calculated from:

$$C_{air} = C_{soil} x \left[\frac{1}{PEF} + \frac{1}{VF}\right]$$

where:

C_{air}	=	Concentration of chemical in air (mg/m^3)
C_{soil}	=	Chemical concentration in soil or sediment (mg/kg)
PEF	=	Particulate emission factor (cubic meters per kilogram [m^3/kg])
VF	=	Volatilization Factor (m^3/kg)

The PEF relates the concentration of a chemical in soil with the concentration of dust particles in air. Equations to calculate PEF are presented by EPA in the *Soil Screening Guidance Technical Background Document* (EPA 1996). These equations show that PEFs are inversely related to air concentrations. As PEF values decrease, air concentrations would increase for soil concentrations that remain constant. A PEF value of 1.21 x 10^9 m^3/kg is used based upon the NYSDEC guidance (NYSDEC 2006). The PCBs identified as COPCs are identified as volatiles by the EPC (EPA 2024a). Therefore, a VF is also determined for the inhalation exposure route. The VF represents the relationship between the concentration of the COPC in soil and the flux of the volatilized COPC to air (EPA 2024a). The VF is chemical-specific and is also determined using the EPA's the *Soil Screening Guidance Technical Background Document* (EPA 1996).

3.5 SELECTION OF EXPOSURE PARAMETERS

The second step in quantifying intake requires the identification of exposure parameters. Exposure parameters include rates of contact (e.g., ingestion rates, skin surface areas), exposure frequency and duration, body weight (BW), and averaging time. The contact rate reflects the amount of contaminated media contacted per unit of time or event. Exposure frequency and duration are used to estimate the total time of exposure to COPC in the media of concern. The BW represents the average BW over an exposure period (EPA 1989). Specific exposure parameters for each receptor are chosen based on EPA guidance (EPA 1989, 1991a, 1991b, 2004, 2011, and 2014) and professional judgement.

Exposure parameters for resident adult and child exposure to soil are presented on **Tables 4-1 and 4-2**. Exposure parameters for the construction worker are presented on **Table 4-3**, and exposure parameters for the commercial/industrial worker are presented on **Table 4-4**. **Table 4-5** presents the exposure parameters for the trespasser. For all receptors, complete exposure routes for soil include ingestion, dermal contact, and inhalation of windblown particulates.

For all adult receptors (i.e., resident adult, commercial/industrial worker, and construction worker), the body weight is assumed at 80 kg (EPA 2014). For the child resident, the body weight is assumed at 15 kg (EPA 2014). For the trespasser, the body weight is based upon the average of the age range evaluated (i.e., 12 to 18 years) taken from EPA *Exposure Factors Handbook* (EFH) Table 8-1 (EPA 2011).

The exposure duration (ED) for each receptor is based upon EPA guidance (2011, 2014), NYSDEC guidance (NYSDEC 2006), professional judgement, and the age range evaluated. The resident is expected to have a total ED of 26 years, based upon the 90th percentile for residential occupancy (EPA 2011). The resident child ED is assumed at 6 years to account for the age range of 0 to 6 years; therefore, the resident adult ED is 20 years (EPA 2014). The commercial/industrial worker is assumed to be a long-term employee who has an employment duration of 25 years (EPA 2014). Construction workers are assumed to be at the site for a 1-year duration (EPA 2014). The trespasser ED is based upon the age-range evaluated.

The exposure frequency (EF), which details how many days per year receptors contact the site, are based upon EPA and NYSDEC guidance (EPA 2011, 2014; NYSDEC 2006). The resident EF is 350 days/year, which assumes 7 days per week for 50 weeks (EPA 2014). The commercial/industrial worker EF is assumed to be similar to the default composite worker (both indoor and outdoor exposure) of 250 days/year, which assumes 5 days per week for 50 weeks (EPA 2014). The construction worker EF is also assumed at 62 days per year based upon the EF for an industrial worker (NYSDEC 2006). The EF for the trespasser is taken from NYSDEC (2006) guidance and is assumed to visit the site 31 days per year (similar to a recreational user).

The ingestion rate for residential exposure to soil is presented in multiple EPA guidance documents and is assumed at 100 mg/day for the adult and 200 mg/day for the child (EPA 1991a, 1991b, 2011a, 2014). The ingestion rate for the construction worker is taken from guidance for the calculation of the EPA RSLs and Supplemental Guidance for Developing Soil Screening Levels (EPA 2002b, 2014). A construction worker soil ingestion rate of 330 mg/day is assumed. For the commercial/industrial worker, a soil ingestion rate of 100 mg/day is assumed to account for both indoor and outdoor activities (EPA 2014). For the trespasser, a soil ingestion rate equal to the resident adult (100 mg/day) is assumed based upon the age range of the trespasser (12 to 18 years).

Dermal exposure to soil is assumed for exposed body surface areas only. The skin surface area (SA) available for contact generally assumes hands, forearms, head, and feet for the resident. The recommended SA for the adult is 6,032 cm^2 and the child is 2,373 cm^2, based on the mean SA (EPA 2014). The construction worker and commercial/industrial worker is only assumed to contact soil with hands, forearms, and head with a mean SA of 3,527 cm^2 (EPA 2014). For the trespasser, the mean SA was determined for the head, hands, forearms, and lower legs from Table 7-2 of the EPA EFH (EPA 2011). To account for the forearm and lower leg only, these body parts were assumed at 45% of the full arm and leg mean surface areas.

The inhalation of soil particulates assumes a 24-hour exposure period for the resident (EPA 2009). The inhalation of soil particulates assumes an 8-hour workday for the construction worker and commercial/industrial worker. The trespasser was assumed to only be present at the site for 4 hours/day. This is based upon a comparison of outdoor recreation times for doers only from Tables 16-25 and 16-26 of EPA EFH (EPA 2011). The 50% percentile and 90% percentile times for the 11 to 16 age range (Table 16-25) and the 50% percentile and 90% percentile times for the Northeast Region ranged from 2 hours to 6 hours. Therefore, a value of 4 hours was selected. The particulate emission factor (PEF) was set to 1.21 x 10^9 m^3/kg based upon NYSDEC guidance (2006).

4. TOXICITY ASSESSMENT

The toxicity assessment considers the types of potential adverse health effects associated with exposures to COPCs, the relationship between the magnitude of exposure and potential adverse effects, and related uncertainties, such as the weight of evidence of a particular COPC carcinogenicity in humans. EPA guidance (EPA 1989) specifies that the assessment be accomplished in two steps: hazard identification and dose-response assessment. Hazard identification is the process of determining whether studies demonstrate that exposure to a COPC may cause the incidence of an adverse effect. EPA specifies the dose-response assessment, which involves: (1) EPA's quantitative evaluation of the existing toxicity information, and (2) EPA's characterization of the relationship between the dose of the COPC administered or received, and the incidence of potentially adverse health effects in the exposed population. From this quantitative dose-response relationship, specific toxicity values are derived by EPA that can be used to estimate the incidence of potentially adverse effects occurring in humans at different exposure levels (EPA 1989).

Toxicity values were selected in keeping with appropriate exposure durations and EPA guidance (EPA 2003). Because PCBs are the only COPCs, toxicity values were taken from the Integrated Risk Information System (IRIS) (EPA 2024b).

4.1 TOXICITY ASSESSMENT FOR NON-CARCINOGENIC ENDPOINTS

An oral reference dose (RfD) is only available for Aroclor 1016 and Aroclor 1254 (EPA 2024b). Non-carcinogens are typically judged to have a threshold daily dose below which deleterious or harmful effects are unlikely to occur. This concentration is called the no-observed-adverse-effect-level (NOAEL) and may be derived from either animal laboratory experiments or human epidemiology investigations (usually workplace studies). In developing a toxicity value or human NOAEL for non-carcinogens (i.e., a RfD), the regulatory approach is to: (1) identify the critical toxic effect associated with chemical exposure (i.e., the most sensitive adverse effect); (2) identify the lowest dose in either an animal or human study; and (3) modify this dose to account for interspecies variability (where appropriate), differences in individual sensitivity (within-species variability), and other uncertainty and modifying factors.

Uncertainty factors (UFs) are intended to account for specific types of uncertainty inherent in extrapolation from the available data. The UFs are generally 10-fold, default factors used in operationally deriving the RfD from experimental data. UFs less than 10 can be used. A UF of 3 can be used in place of one-half power ($10^{0.5}$) when appropriate. The UFs are intended to account for: (1) variation in susceptibility among the members of the human population (i.e., inter-individual or intraspecies variability), (2) uncertainty in extrapolating animal data to humans (i.e., interspecies uncertainty), (3) uncertainty in extrapolating from data obtained in a study with less-than-lifetime exposure (i.e., extrapolating from subchronic to chronic exposure), (4) uncertainty in extrapolating from a lowest-observed-adverse-effect-level (LOAEL) rather than from a NOAEL, and (5) uncertainty associated with extrapolation when the database is incomplete. To calculate the RfD, the appropriate point of departure is divided by the product of all the applicable UFs. The resulting RfD is expressed in units of milligrams of chemical per kilogram of body weight per day.

Tables 5-1 and 5-2 present the chronic toxicity values for non-carcinogenic effects.

For Aroclor 1254, the RfD is based upon a LOAEL of 0.005 mg/kg-day (EPA 2024b). A NOAEL was not identified (EPA 2024b). The uncertainty factor of 300 accounts for the following: (1) 10-fold factor to account for sensitive individuals, (2) 3-fold factor for extrapolation from rhesus monkeys to humans, (3) 3-fold factor due to the use of a LOAEL, and (4) 3-fold factor to account for extrapolation from a subchronic exposure to chronic exposure (EPA 2024b).

4.2 TOXICITY ASSESSMENT FOR CARCINOGENICITY

EPA-derived toxicity values for evaluating potential carcinogenic effects for COPCS are summarized in **Tables 6-1 and 6-2**. Unlike non-carcinogens, carcinogens are generally assumed to have no threshold. There is presumed to be no level of exposure below which carcinogenic effects will not manifest themselves. This "non-threshold" concept supports the idea that there are small, finite probabilities of inducing a carcinogenic response associated with every level of exposure to a potential carcinogen. EPA uses a two-part evaluation for carcinogenic effects. This evaluation includes the assignment of a weight-of-evidence classification and the quantification of a cancer toxic potency concentration. Quantification is expressed as a slope factor (SF) for oral and dermal exposures and an inhalation unit risk (IUR) for inhalation exposures, which reflects the dose-response data for the carcinogenic endpoint(s) (EPA 1989, 2009).

All Aroclors are considered "high risk and persistent"; therefore, the SF of 2 mg/kg-day is used for all Aroclors considered COPCs (EPA 2024b). Additionally, this SF is used for the inhalation of dust exposure route (EPA 2024b). The SF is converted to an IUR based upon the following equation:

$$IUR\ (ug/m^3)^{-1} = SF\ (mg/kg\text{-}day)^{-1} \times IR\ (m^3/day) / BW\ (kg)$$

where:

IUR	=	Inhalation unit risk $(ug/m^3)^{-1}$
SF	=	Slope factor $(mg/kg\text{-}day)^{-1}$
IR	=	Inhalation rate (20 m^3/day, EPA 1989)
BW	=	Body weight (70 kg, EPA 2024b)

The weight-of-evidence classification system assigns a letter or alphanumeric (A through E) to each potential carcinogen that reflects an assessment of its potential to be a human carcinogen (EPA 1986).[1] All Aroclors evaluated have a weight-of-evidence characterization of B2 based upon liver tumors in female and male rats (EPA 2024b).

[1]A = A known human carcinogen; B1 = A probable human carcinogen, based on sufficient animal data and limited human data; B2 = A probable human carcinogen based on sufficient animal data and inadequate or no human data; C = A possible human carcinogen; D = Not classifiable as to human carcinogenicity; and E = Evidence of non-carcinogenicity for humans.

The SF and the IUR are the upper 95th percentile confidence limit of the probability of response per unit daily intake of a chemical over a lifetime. The SF is expressed in units of proportion (of a population) affected per mg/kg/day. The IUR is expressed in µg/m^3. Typically, the SF and the IUR are used to estimate the upper-bound lifetime probability of a person developing cancer from exposure to a given concentration of a carcinogen. SFs and IURs are generally based on experimental animal data, unless suitable epidemiological studies are available. Because of the difficulty in detecting and measuring carcinogenic endpoints at low exposure concentrations, SFs and IURs are typically developed by using a model to fit the available high dose, experimental animal data, and then extrapolating downward to the low-dose range to which humans are typically exposed. EPA recommends the linear multistage model to derive an SF and IUR. The model is conservative and provides an upper bound estimate of excess lifetime cancer risk. These methods and approaches are discussed in greater detail within the EPA cancer guidelines (EPA 2005a).

4.3 TOXICITY ASSESSMENT MODIFICATION FOR DERMAL CONTACT

Toxicity values specific to dermal exposures are not available and require adjustment of the oral toxicity values (oral RfDs or SFs). This adjustment accounts for the difference between the daily intake dose through dermal contact as opposed to ingestion. Most toxicity values are based on the actual administered dose and must be corrected for the percent of chemical-specific absorption that occurs across the gastrointestinal tract prior to use in dermal contact risk assessment (EPA 1989, 2004). EPA recommends utilizing oral absorption efficiency factors in converting oral toxicity values to dermal toxicity values (EPA 2004). This adjustment accounts for the absorption efficiency in the "critical study," which is utilized in determining the RfD and SF. Where oral absorption in the critical study is essentially complete (i.e., 100 percent), the absorbed dose is equivalent to the administered dose, and no adjustment of oral toxicity values is necessary when evaluating dermal exposures. When gastrointestinal absorption of a chemical in the critical study is poor (e.g., 1 percent), the absorbed dose is much smaller than the administered dose, and toxicity values for dermal exposure are adjusted to account for the difference in the absorbed dose relative to the administered dose. To account for the differences between the administered (oral) and the absorbed (dermal) dose, RfDs and SFs are modified by the gastrointestinal dermal absorption factor (GIABS). **Table 5-3** presents the chemical-specific parameters for dermal contact.

In addition to the GIABS modification of the toxicity values for dermal contact, dermal contact rates are also evaluated based upon a chemical's ability to be absorbed through the skin surface. For soil, EPA has identified a dermal ABS that is chemical-specific. The ABS value reflects the desorption of a chemical from soil and the absorption of the chemical across the skin and into the blood stream. Recommended values are presented that consider ranges of values that result from different soil types, loading rates, chemical concentrations, and other conditions.

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5. RISK CHARACTERIZATION

The risk characterization combines information from the data evaluation, exposure assessment, and toxicity assessment to generate a conclusion about risk concerns for potential receptors to the site. To determine potential risk concerns, EPCs are compared to appropriate screening levels.

Multiple media were evaluated during the RI, including soil, surface water, sediment, and groundwater. Of these, surface soil and subsurface soil were determined to be media of concern in relation to PCBs. The following presents the comparison of the EPC to the applicable screening criteria:

Surface Soil

COPC	EPC (mg/kg)	Unrestricted Use SCO[1] (mg/kg)	Residential Soil RSL[2] (mg/kg)	Exceeds Screening Criteria?
Aroclor-1254	98	0.1	0.23	**Yes**
Aroclor-1260	46.2	0.1	0.24	**Yes**

Notes:
1) NYSDEC, 2023. Codes, Rules and Regulations of the State of New York, Title 6, Part 375-6.
2) EPA, 2024a. Regional Screening Levels, May. https://www.epa.gov/risk/regional-screening-levels-rsls.

COPC	EPC (mg/kg)	Restricted Use - Commercial SCO[1] (mg/kg)[1]	Industrial Soil RSL[2] (mg/kg)	Restricted Use – Industrial SCO[1] (mg/kg)	Exceeds Screening Criteria?
Aroclor-1248	98	1	0.94	25	**Yes**
Aroclor-1260	46.2	1	0.99	25	**Yes**

Notes:
1) NYSDEC, 2023. Codes, Rules and Regulations of the State of New York, Title 6, Part 375-6.
2) EPA, 2024a. Regional Screening Levels, May. https://www.epa.gov/risk/regional-screening-levels-rsls.

Subsurface Soil

COPC	EPC (mg/kg)	Unrestricted Use SCO[1] (mg/kg)	Residential Soil RSL[2] (mg/kg)	Exceeds Screening Criteria?
Aroclor 1242	46	0.1	0.23	**Yes**
Aroclor-1254	13	0.1	0.24	**Yes**
Aroclor-1260	72	0.1	0.24	**Yes**

Notes:
1) NYSDEC, 2023. Codes, Rules and Regulations of the State of New York, Title 6, Part 375-6.
2) EPA, 2024a. Regional Screening Levels, May. https://www.epa.gov/risk/regional-screening-levels-rsls.

COPC	EPC (mg/kg)	Restricted Use - Commercial SCO[1] (mg/kg)[1]	Industrial Soil RSL[2] (mg/kg)	Restricted Use – Industrial SCO[1] (mg/kg)	Exceeds Screening Criteria?
Aroclor 1242	46	1	0.95	25	**Yes**
Aroclor-1254	13	1	0.97	25	**Yes**
Aroclor-1260	72	1	0.99	25	**Yes**

Notes:
1) NYSDEC, 2023. Codes, Rules and Regulations of the State of New York, Title 6, Part 375-6.
2) EPA, 2024a. Regional Screening Levels, May. https://www.epa.gov/risk/regional-screening-levels-rsls.

5.1 RESULTS

Based upon the exceedance of all screening levels, except the Restricted Use – Industrial Soil SCO for Aroclor-1254, there are potential concerns for human health for contact with soil at the Site. To address these concerns, remedial action is proposed. Remedial action objectives (RAOs) have been set forth to address contamination at the site and provide for the protection of human health and the environment. The following RAOs have been identified:

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation exposure to airborne particulate contaminants from soil.
- Prevent migration of contaminants in soil to surface water and downstream sediments.

The recommended remedial alternative for the site is to cap the entire area with a 2-ft soil cover while keeping the existing soil in place, which is in accordance with New York State's soil cleanup objectives (NYSDEC 2023). Additionally, the proposed remedy will limit the Site use to low occupancy (or commercial industrial) use. A chain-linked fence with locking gate and signage would be installed along the perimeter of the site to prevent access and exposure to the Site. Additionally, annual monitoring would be conducted as part of the Gibson Scrapyard Site Management Plan to assure the restoration is successful and the remedy remains protective. Groundwater monitoring would be conducted at the monitoring well closest to Narrows Creek to ensure groundwater is not transporting contaminants to the creek. Soil cover would be inspected to maintain that remedy is in place. Institutional controls, which would include a groundwater use restriction, a site use restriction, a soil management plan, and the provision to evaluate soil vapor intrusion potential if any structures are constructed onsite.

This remedial alternative eliminates risk concerns for current and future exposure to soil. This remedial alternative also eliminates the only exposure pathway of concern identified for the Site and is protective of human health. Additionally, while groundwater was not identified as a complete exposure pathway, the monitoring of groundwater and potential discharges to Narrows Creek would ensure that these exposure pathways are not complete in the future.

6. REFERENCES

ARGO Systems, LLC and its subcontractor EA Engineering, P.C. and its affiliate EA Science and Technology (The ARGO Team). 2009. *Phase I Environmental Site Assessment Report, Coring Materials Site, Hamlet of Gibson, Town of Corning, Steuben County, New York*. April.

———. 2010. *Phase II Site Investigation Report, Corning Materials Site, Hamlet of Gibson, Town of Corning, Steuben County, New York*. June.

EA Engineering, P.C. and its affiliate EA Science and Technology (EA). 2022. *Remedial Investigation Report Gibson Scrapyard NYSDEC Site No. 851058.* February.

———. 2023. *Feasibility Study Report, Gibson Scrapyard (851058), Steuben County, Gibson, New York*. September.

Fagan Engineers. 1997. *Phase I Environmental Site Assessment, Corning Waste Materials, Inc, Tax Map #318.00-01-03.00, Town of Corning, New York*. January.

New York State Department of Environmental Conservation (NYSDEC). 1998. *Division of Water Technical and Operational Guidance Series [TOGS] (1.1.1). Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*. https://extapps.dec.ny.gov/docs/water_pdf/togs111.pdf

———. 2006. *Development of Soil Cleanup Objectives, Technical Support Document*. September.

———. 2023. *6 New York Code of Rules and Regulations (NYCRR) Part 375 Environmental Remediation Programs – Soil Cleanup Objectives (SCOs).* February 28.

U.S. Environmental Protection Agency (EPA). 1986. Guidelines for Carcinogen Risk Assessment. EPA/630/R-00/004. September.

———. 1989. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A) (Interim Final). Report No. EPA/540/1-89/002. Office of Emergency and Remedial Response. December.

———. 1990. National Oil and Hazardous Substances Pollution Contingency Plan (40 Code of Federal Regulation Part 300).

———. 1991a. Volume 1: Human Health Evaluation Manual Supplemental Guidance – "Standard Default Exposure Factors" (Interim Final), Publication 9285.6-03.

———. 1991b. Risk Assessment Guidance for Superfund, Volume I – Human Health Evaluation Manual (Part B – Development of Risk-based Preliminary Remediation Goals). EPA/540/R-92/003. December.

———. 1992. Guidelines for Data Usability in Risk Assessment (Part A). Office of Solid Waste and Emergency Response, Publication OSWER9285.7-09A.

———. 1996. Soil Screening Guidance: Technical Background Document, Second Edition, EPA/540/R95/128, May 1996, Office of Emergency and Remedial Response, Washington, DC. Available online: https://semspub.epa.gov/work/03/2218759.pdf

———. 2001. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part D: Standardized Planning, Reporting, and Review of Superfund Risk Assessments). Final. Office of Emergency and Remedial Response, Washington, D.C. Publication 9285.7-47. December.

———. 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. Office of Emergency and Remedial Response, Washington, D.C. December.

———. 2003. Memorandum: Human Health Toxicity Values in Superfund Risk Assessments. Office of Solid Waste and Emergency Response, OSWER9285.7-53.

———. 2004. Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part E: Supplemental Guidance for Dermal Risk Assessment). Final. Office of Superfund Remediation and Technology Innovation. EPA-540-R-99-005. July

———. 2005a. Guidelines for Carcinogen Risk Assessment. EPA/630/P-03/001F. Risk Assessment Forum. March.

———. 2005b. Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens. Risk Assessment Forum. EPA/630/R-03/003F. March.

———. 2009. Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part F: Supplemental Guidance for Inhalation Risk Assessment). Final. Office of Superfund Remediation and Technology Innovation. EPA-540-R-070-002. January.

———. 2011. Exposure Factors Handbook: 2011 Edition. EPA/600/R-090/052F. September.

———. 2014. Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER Directive 9200.1-120. Office of Solid Waste and Emergency Response, Washington, D.C. 6 February.

———. 2022. ProUCL 5.2.00. 20 June.

———. 2024a. Regional Screening Levels for Chemical Contaminants at Superfund Sites. https://www.epa.gov/risk/regional-screening-levels-rsls. May.

———. 2024b. Integrated Risk Information System. http://www.epa.gov/iris. Environmental Criteria and Assessment Office, Washington, D.C.

Stueben County Real Property Tax Service (RPTS). 2024. Parcel Map. https://steubencounty-scnygis.opendata.arcgis.com/

Southern Tier Central Regional Planning and Development Board (STC). 2016. Town of Corning Zoning Map. https://www.stcplanning.org/document/town-of-corning-zoning-map/

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Figures

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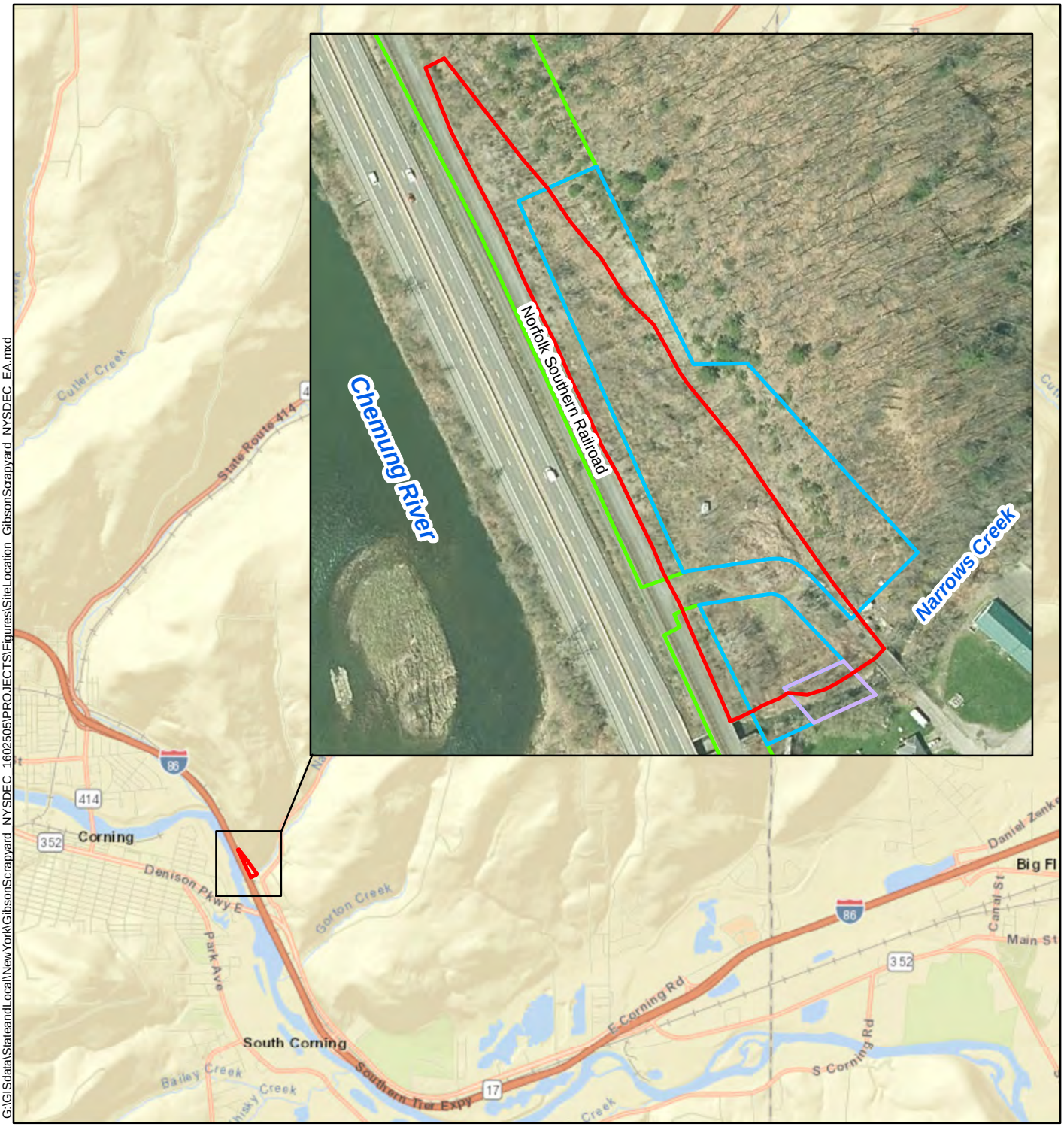

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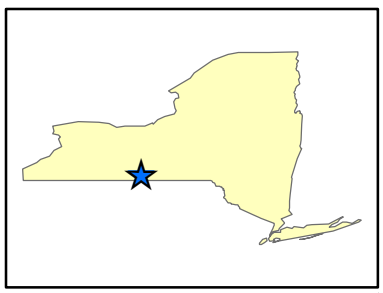

0 0.4 0.8 1.2 1.6
Miles

N

Legend

- Site Boundary
- Residential Parcel
- Commercial Parcel
- Railroad

Figure 1-1
SITE LOCATION
Gibson Scrapyard (NYSDEC Site 851058)
Gibson, NY

Map Date: 9/3/2021
Projection: NAD83 State Plane New York Central
FIPS 3102 Feet

G:\GIS\data\StateandLocal\NewYork\GibsonScrapyard NYSDEC 1602505\PROJECTS\Figures\SiteFeatures GibsonScrapyard NYSDEC EA.mxd

Legend

- Site Boundary
- Concrete Foundation
- Construction Waste/Fill Mounds
- Underground Storage Tank
- Geophysical Anomalies
- Test Pit

0 100 200
Feet

N

Figure 1-2
SITE FEATURES
Gibson Scrapyard (NYSDEC Site 851058)
Gibson, NY

Map Date: 9/16/2021
Projection: NAD83 State Plane New York Central
FIPS 3102 Feet

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Legend

- Surface Soil Sampling Locations
- Monitoring Well/Soil Boring Locations
- Sediment and Surface Water Sampling Locations
- Site Boundary

0 100 200
Feet

N

Note:
Subsurface soil samples coincide with monitoring well and groundwater sampling locations.

Figure 2-1
SAMPLING LOCATIONS
Gibson Scrapyard (NYSDEC Site 851058)
Gibson, NY

Map Date: 9/16/2021
Projection: NAD83 State Plane New York Central
FIPS 3102 Feet

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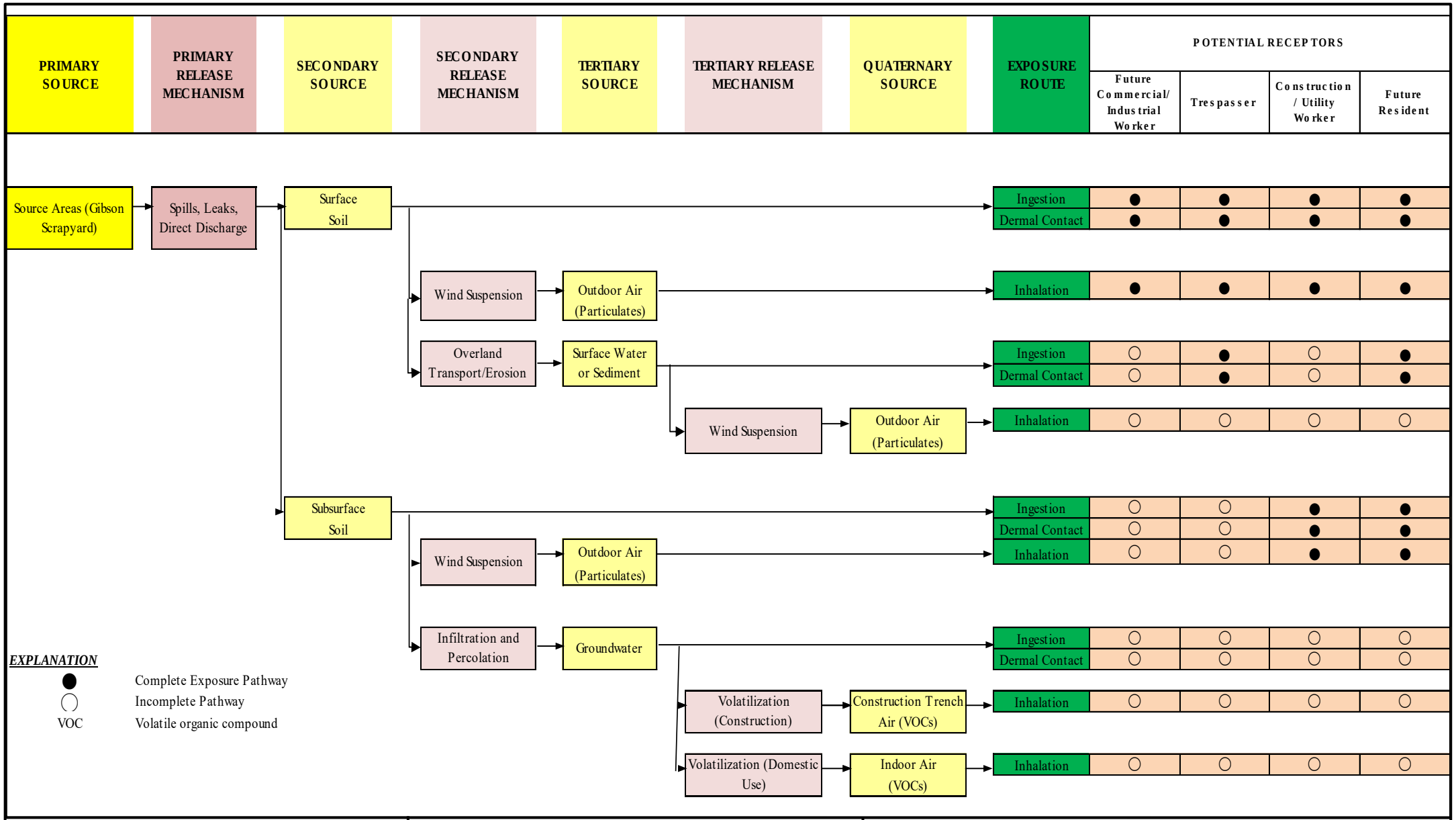

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

GIBSON SCRAPYARD SITE
(NYSDEC Site 851058)
GIBSON, NEW YORK

FIGURE 3-1
Human Health Conceptual Site Model

PROJECT MGR:	DATE:	EA PROJECT NO:
L. DeSantis	June 2024	1602505

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Tables

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TABLE 2-1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
GIBSON SCRAPYARD (SITE: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Soil

Exposure Point	Constituent Group	Constituent	CASRN	Minimum Detected Concentration (mg/kg)	Qual	Maximum Detected Concentration (mg/kg)	Qual	Location of Maximum Detected Concentration	Sample Count	Detect Count	Concentration (1) used for Screening (mg/kg)	6 NYCRR Part 375 Unrestricted Use SCO (mg/kg)	EPA RSL (2) Resident Soil (mg/kg)		EPA RSL (2) Industrial Soil (mg/kg)		COPC Flag (Y/N)	Rationale for Selection or Deletion
													Value	Basis	Value	Basis		
Surface Soil	PCB	PCB-1016 (Aroclor 1016)	12674-11-2	ND		ND		--	14	0	ND	0.1	0.41	n	5.1	n	N	Not detected.
Surface Soil	PCB	PCB-1221 (Aroclor 1221)	11104-28-2	ND		ND		--	14	0	ND	0.1	0.2	c	0.83	c	N	Not detected.
Surface Soil	PCB	PCB-1232 (Aroclor 1232)	11141-16-5	ND		ND		--	14	0	ND	0.1	0.17	c	0.72	c	N	Not detected.
Surface Soil	PCB	PCB-1242 (Aroclor 1242)	53469-21-9	ND		ND		--	14	0	ND	0.1	0.23	c	0.95	c	N	Not detected.
Surface Soil	PCB	PCB-1248 (Aroclor 1248)	12672-29-6	0.18	J	98		SS-09	14	2	98	0.1	0.23	c	0.94	c	Y	Equal to or above screening level.
Surface Soil	PCB	PCB-1254 (Aroclor 1254)	11097-69-1	ND		ND		--	14	0	ND	0.1	0.12	n	0.97	c	N	Not detected.
Surface Soil	PCB	PCB-1260 (Aroclor 1260)	11096-82-5	0.24	J	120		SS-09	14	11	120	0.1	0.24	c	0.99	c	Y	Equal to or above screening level.
Surface Soil	PCB	PCB-1262 (Aroclor 1262)*	37324-23-5	ND		ND		--	14	0	ND	NS	0.24	n	0.99	c	N	Not detected.
Surface Soil	PCB	PCB-1268 (Aroclor 1268)*	11100-14-4	ND		ND		--	14	0	ND	NS	0.24	n	0.99	c	N	Not detected.
Subsurface Soil	PCB	PCB-1016 (Aroclor 1016)	12674-11-2	ND		ND		--	18	0	ND	0.1	0.41	n	5.1	n	N	Not detected.
Subsurface Soil	PCB	PCB-1221 (Aroclor 1221)	11104-28-2	ND		ND		--	18	0	ND	0.1	0.2	c	0.83	c	N	Not detected.
Subsurface Soil	PCB	PCB-1232 (Aroclor 1232)	11141-16-5	ND		ND		--	18	0	ND	0.1	0.17	c	0.72	c	N	Not detected.
Subsurface Soil	PCB	PCB-1242 (Aroclor 1242)	53469-21-9	0.14		46		SB-MW04	18	4	46	0.1	0.23	c	0.95	c	Y	Equal to or above screening level.
Subsurface Soil	PCB	PCB-1248 (Aroclor 1248)	12672-29-6	ND		ND		--	18	0	ND	0.1	0.23	c	0.94	c	N	Not detected.
Subsurface Soil	PCB	PCB-1254 (Aroclor 1254)	11097-69-1	2.6		13		SB-MW05	18	2	13	0.1	0.12	n	0.97	c	Y	Equal to or above screening level.
Subsurface Soil	PCB	PCB-1260 (Aroclor 1260)	11096-82-5	0.18		160		SB-MW04	18	9	160	0.1	0.24	c	0.99	c	Y	Equal to or above screening level.
Subsurface Soil	PCB	PCB-1262 (Aroclor 1262)*	37324-23-5	ND		ND		--	18	0	ND	NS	0.24	n	0.99	c	N	Not detected.
Subsurface Soil	PCB	PCB-1268 (Aroclor 1268)*	11100-14-4	ND		ND		--	18	0	ND	NS	0.24	n	0.99	c	N	Not detected.

Notes:
(1) The maximum detected soil concentrations from each depth are used for the COPC screening.
(2) EPA Regional Screening Levels, May 2024. RSLs are based upon a target risk of 1E-06 and target hazard quotient of 0.1.
The 6 NYCRR Part 375 SCO for total PCBs is applied to the individual Aroclors.
The COPC screening applies the minimum of the 6 NYCRR Part 375 SCOs and USEPA Soil RSLs.
* The EPA RSLs for PCB-1254 is applied for 1262 and 1268, as they do not have RSLs.

Abbreviations:
COPC -- Constituent of Potential Concern
mg/kg -- Milligrams per kilogram
NS -- No screening criteria available
ND -- Not detected
NYCRR -- New York Codes, Rules and Regulations
PCB -- Polychlorinated biphenyl
Qual -- Qualifier
RSL -- EPA Regional Screening Levels
SCO -- Soil cleanup objective
EPA -- United States Environmental Protection Agency

RSL Basis:
c -- Cancer
n -- Noncancer

Qualifiers:
J -- Estimated concentration

TABLE 2-2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
GIBSON SCRAPYARD (SITE: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Point	Constituent Group	Constituent	CASRN	Minimum Detected Concentration (µg/L)	Qual	Maximum Detected Concentration (µg/L)	Qual	Location of Maximum Detected Concentration	Sample Count	Detect Count	Concentration used for Screening (µg/L)	Surface Water [(1)] Screening Levels (µg/L)		COPC Flag (Y/N)	Rationale for Selection or Deletion
												Value	Basis		
Surface Water	PCB	PCB-1016 (Aroclor 1016)	12674-11-2	ND		ND		--	9	0	ND	0.09	n	N	Not detected.
Surface Water	PCB	PCB-1221 (Aroclor 1221)	11104-28-2	ND		ND		--	9	0	ND	0.09	c	N	Not detected.
Surface Water	PCB	PCB-1232 (Aroclor 1232)	11141-16-5	ND		ND		--	9	0	ND	0.09	c	N	Not detected.
Surface Water	PCB	PCB-1242 (Aroclor 1242)	53469-21-9	ND		ND		--	9	0	ND	0.09	c	N	Not detected.
Surface Water	PCB	PCB-1248 (Aroclor 1248)	12672-29-6	ND		ND		--	9	0	ND	0.09	c	N	Not detected.
Surface Water	PCB	PCB-1254 (Aroclor 1254)	11097-69-1	ND		ND		--	9	0	ND	0.09	c	N	Not detected.
Surface Water	PCB	PCB-1260 (Aroclor 1260)	11096-82-5	ND		ND		--	9	0	ND	0.09	c	N	Not detected.
Surface Water	PCB	PCB-1262 (Aroclor 1262)	37324-23-5	ND		ND		--	9	0	ND	0.09	c	N	Not detected.
Surface Water	PCB	PCB-1268 (Aroclor 1268)	11100-14-4	ND		ND		--	9	0	ND	0.09	c	N	Not detected.

Notes:
(1) Surface Water Screening Levels = NYSDEC Ambient Water Quality Standard Class A, Type H(WS), and Type H(FC) (TOGS 1.1.1)

Abbreviations:
COPC -- Constituent of Potential Concern
µg/L -- Micrograms per liter
ND -- Not detected
PCB -- Polychlorinated biphenyl
Qual -- Qualifier

RSL Basis:
c -- Cancer
n -- Noncancer

TABLE 2-3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
GIBSON SCRAPYARD (SITE: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Sediment

Exposure Point	Constituent Group	Constituent	CASRN	Minimum Detected Concentration (mg/kg)	Qual	Maximum Detected Concentration (mg/kg)	Qual	Location of Maximum Detected Concentration	Sample Count	Detect Count	NYSDEC (1) Unrestricted Use SCO (mg/kg)	EPA RSL (2) Resident Soil (mg/kg)		EPA RSL (2) Industrial Soil (mg/kg)		COPC Flag (Y/N)	Rationale for Selection or Deletion
												Value	Basis	Value	Basis		
Sediment	PCB	PCB-1016 (Aroclor 1016)	12674-11-2	ND		ND		--	9	0	0.1	0.41	n	5.1	n	N	Not detected.
Sediment	PCB	PCB-1221 (Aroclor 1221)	11104-28-2	ND		ND		--	9	0	0.1	0.2	c	0.83	c	N	Not detected.
Sediment	PCB	PCB-1232 (Aroclor 1232)	11141-16-5	ND		ND		--	9	0	0.1	0.17	c	0.72	c	N	Not detected.
Sediment	PCB	PCB-1242 (Aroclor 1242)	53469-21-9	ND		ND		--	9	0	0.1	0.23	c	0.95	c	N	Not detected.
Sediment	PCB	PCB-1248 (Aroclor 1248)	12672-29-6	ND		ND		--	9	0	0.1	0.23	c	0.94	c	N	Not detected.
Sediment	PCB	PCB-1254 (Aroclor 1254)	11097-69-1	ND		ND		--	9	0	0.1	0.12	n	0.97	c	N	Not detected.
Sediment	PCB	PCB-1260 (Aroclor 1260)	11096-82-5	0.39		0.39		NSED-02	9	1	0.1	0.24	c	0.99	c	Y	Equal to or above screening
Sediment	PCB	PCB-1262 (Aroclor 1262)*	37324-23-5	ND		ND		--	9	0	NS	0.24	n	0.99	c	N	Not detected.
Sediment	PCB	PCB-1268 (Aroclor 1268)*	11100-14-4	ND		ND		--	9	0	NS	0.24	n	0.99	c	N	Not detected.

Notes:
(1) NYSDEC Unrestricted Use SCO = NYSDEC Part 375, Unrestricted Use Soil
(2) EPA Regional Screening Levels, May 2024. RSLs are based upon a cancer risk level of 1E-06 or a noncancer hazard of 0.1.
* The EPA RSLs for PCB-1254 is applied for 1262 and 1268, as they do not have RSLs.

Abbreviations:
COPC -- Constituent of Potential Concern
mg/kg -- Milligrams per kilogram
NS -- No screening criteria available
ND -- Not detected
NYSDEC -- New York State Department of Environmental Conservation
PCB -- Polychlorinated biphenyl
Qual -- Qualifier
RSL -- USEPA Regional Screening Levels
SCO -- Soil cleanup objective
USEPA -- United States Environmental Protection Agency

RSL Basis:
c -- Cancer
n -- Noncancer

TABLE 2-4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
GIBSON SCRAPYARD (SITE: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Constituent Group	Constituent	CASRN	Minimum Detected Concentration (µg/L)	Qual	Maximum Detected Concentration (µg/L)	Qual	Location of Maximum Detected Concentration	Sample Count	Detect Count	Concentration used for Screening (µg/L)	NYSDEC [1] AWQS	EPA [2] Tap Water RSLs (µg/L)		COPC Flag (Y/N)	Rationale for Selection or Deletion
													Value	Basis		
Groundwater	PCB	PCB-1016 (Aroclor 1016)	12674-11-2	ND		ND		--	10	0	ND	0.09	0.14	n	N	Not detected.
Groundwater	PCB	PCB-1221 (Aroclor 1221)	11104-28-2	ND		ND		--	10	0	ND	0.09	0.0047	c	N	Not detected.
Groundwater	PCB	PCB-1232 (Aroclor 1232)	11141-16-5	ND		ND		--	10	0	ND	0.09	0.0047	c	N	Not detected.
Groundwater	PCB	PCB-1242 (Aroclor 1242)	53469-21-9	ND		ND		--	10	0	ND	0.09	0.0078	c	N	Not detected.
Groundwater	PCB	PCB-1248 (Aroclor 1248)	12672-29-6	0.22	J	0.22	J	MW-04D	10	1	0.22	0.09	0.0078	c	Y	Equal to or above screening level.
Groundwater	PCB	PCB-1254 (Aroclor 1254)	11097-69-1	ND		ND		--	10	0	ND	0.09	0.0078	c	N	Not detected.
Groundwater	PCB	PCB-1260 (Aroclor 1260)	11096-82-5	0.38	J	0.38	J	MW-04D	10	1	0.38	0.09	0.0078	c	Y	Equal to or above screening level.
Groundwater	PCB	PCB-1262 (Aroclor 1262)*	37324-23-5	ND		ND		--	10	0	ND	0.09	0.0078	c	N	Not detected.
Groundwater	PCB	PCB-1268 (Aroclor 1268)*	11100-14-4	ND		ND		--	10	0	ND	0.09	0.0078	c	N	Not detected.

Notes:
1) Groundwater Screening Level = NYSDEC Ambient Water Quality Standard Class GA (Standard/guidance values) (Technical and Operational Guidance Series [TOGS] 1.1.1)
2) EPA tap water Regional Screening Levels, May 2024. RSLs are based upon a cancer risk level of 1E-06 or a noncancer hazard of 0.1.
* The EPA RSLs for PCB-1254 is applied for 1262 and 1268, as they do not have RSLs.

Abbreviations:
AWQS -- Ambient Water Quality Standard
COPC -- Constituent of Potential Concern
µg/L -- Micrograms per liter
ND -- Not detected
NYSDEC -- New York State Department of Environmental Conservation
PCB -- Polychlorinated biphenyl
Qual -- Qualifier
RSL -- EPA Regional Screening Levels
EPA -- United States Environmental Protection Agency

RSL Basis:
c -- Cancer
n -- Noncancer

TABLE 3-1
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Current/Future
Medium: Surface soil
Exposure Medium: Surface soil
Exposure Point: Gibson Scrapyard

Chemical of Potential Concern	Units	Mean Detected Concentration	95% UCLM	Maximum Detected Concentration	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Polychlorinated Biphenyls									
PCB-1248 (Aroclor 1248)	mg/kg	4.91E+01	NA	9.80E+01		mg/kg	9.80E+01	Maximum	LOW#DETECTS
PCB-1260 (Aroclor 1260)	mg/kg	3.59E+01	4.62E+01	1.20E+02		mg/kg	4.62E+01	95%UCLM-KMt	ProUCL

Note: Statistics calculated by the EPA program ProUCL.
95%UCLM-KMt indicates that the 95 percent upper confidence limit on the mean is based on the non-parametric Kaplan-Meier (KM) student's t-test.
LOW#DETECTS indicates low number of detects (less than 5).
EPC = Exposure point concentration
mg/kg = milligrams per killogram
NA = Not Applicable

TABLE 3-2
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Future
Medium: Subsurface soil
Exposure Medium: Subsurface soil
Exposure Point: Gibson Scrapyard

Chemical of Potential Concern	Units	Mean Detected Concentration	95% UCLM	Maximum Detected Concentration	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Polychlorinated Biphenyls									
PCB-1242 (Aroclor 1242)	mg/kg	1.34E+01	NA	4.60E+01	J	mg/kg	4.60E+01	Maximum	LOW#DETECTS
PCB-1254 (Aroclor 1254)	mg/kg	7.80E+00	NA	1.30E+01		mg/kg	1.30E+01	Maximum	LOW#DETECTS
PCB-1260 (Aroclor 1260)	mg/kg	2.99E+01	7.20E+01	1.60E+02	J	mg/kg	7.20E+01	95%UCLM-KMG	ProUCL

Note: Statistics calculated by the EPA program ProUCL.
99%UCLM-KMG indicates that the 95 percent upper confidence limit on the mean is based on the non-parametric Kaplan-Meier (KM) Gamma test.
LOW#DETECTS indicates low number of detects (less than 5).
EPC = Exposure point concentration
mg/kg = milligrams per killogram
NA = Not Applicable

TABLE 4-1
VALUES USED FOR RESIDENT ADULT DAILY SOIL INTAKE EQUATIONS
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Soil, Air
Exposure Point: Gibson Scrapyard
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/Reference	Intake Equation / Model Name
Ingestion	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	Chronic Daily Intake (CDI) (mg/kg/day) =
	IR	Ingestion Rate	mg/day	100	EPA 2014	CS x IR x EF x ED x CF / (BW x AT)
	EF	Exposure Frequency	day/yr	350	EPA 2014	
	ED-NC	Exposure Duration - Noncancer	yr	20	EPA 2014	
	ED-C	Exposure Duration-Cancer	yr	20	EPA 2014	
	BW	Body Weight	kg	80	EPA 2014	
	AT- NC	Averaging Time - Noncancer	days	7,300	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
Dermal	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	SA	Surface Area for Contact	cm^2/event	6,032	EPA 2014	CS x SA x AF x ABS x EF x ED x CF / (BW x AT)
	AF	Adherence Factor	mg/cm^2	0.07	EPA 2014 (1)	
	EF	Exposure Frequency	event/yr	350	EPA 2014	
	ED-NC	Exposure Duration - Noncancer	yr	20	EPA 2014	
	ED-C	Exposure Duration - Cancer	yr	20	EPA 2014	
	BW	Body Weight	kg	80	EPA 2014	
	AT- NC	Averaging time - Noncancer	days	7,300	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
	ABS	Dermal Absorption Fraction	unitless	Chemical-Specific	EPA 2004 (2)	
Inhalation	CA	Chemical Concentration in Air	mg/m^3	Chemical-Specific	Chemical-Specific	Exposure Concentration ($\mu g/m^3$ or mg/m^3) =
	CF_1	Conversion Factor	µg/mg	1,000	EPA 2009	CA x CF_1 x ET x EF x ED / AT x CF_2
	ET	Exposure Time	hr/day	24	EPA 2009	Note: CF_1 only used in carcinogenic intake calculations
	EF	Exposure Frequency	day/yr	350	EPA 2014	
	ED-NC	Exposure Duration - Noncancer	yr	20	EPA 2014	
	ED-C	Exposure Duration - Cancer	yr	20	EPA 2014	
	AT- NC	Averaging Time - Noncancer	days	7,300	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF_2	Conversion Factor	hour/day	24	EPA 2009	

(1) Taken from Exhibit 3-5 of USEPA 2004.
(2) Taken from Exhibit 3-4 of USEPA 2004.

BPJ = Best Professional Judgment
EPA = United States Environmental Protection Agency
CDI = chronic daily intake
mg/kg = milligrams per kilogram
kg/mg = kilograms per milligram
mg/cm^2 = milligrams per square centimeter
mg/day = milligrams per day
day/yr = days per year
RME = Reasonable Maximum Exposure
mg/m^3 = milligram per cubic meter
$\mu g/m^3$ = micrograms per cubic meter
cm^2 /event = square centimeters per event
µg/mg = microgram per milligram
kg = kilogram
hr/day = hours per day

TABLE 4-2
VALUES USED FOR RESIDENT CHILD DAILY SOIL INTAKE EQUATIONS
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Soil, Air
Exposure Point: Gibson Scrapyard
Receptor Population: Resident
Receptor Age: Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/Reference	Intake Equation / Model Name
Ingestion	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	Chronic Daily Intake (CDI) (mg/kg/day) =
	IR	Ingestion Rate	mg/day	200	EPA 2014	CS x IR x EF x ED x CF / (BW x AT)
	EF	Exposure Frequency	day/yr	350	EPA 2014	
	ED-NC	Exposure Duration - Noncancer	yr	6	EPA 2014	
	ED-C	Exposure Duration-Cancer	yr	6	EPA 2014	
	BW	Body Weight	kg	15	EPA 2014	
	AT- NC	Averaging Time - Noncancer	days	2,190	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
Dermal	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	SA	Surface Area for Contact	cm^2/event	2,373	EPA 2014	CS x SA x AF x ABS x EF x ED x CF / (BW x AT)
	AF	Adherence Factor	mg/cm^2	0.2	EPA 2014 (1)	
	EF	Exposure Frequency	event/yr	350	EPA 2014	
	ED-NC	Exposure Duration - Noncancer	yr	6	EPA 2014	
	ED-C	Exposure Duration - Cancer	yr	6	EPA 2014	
	BW	Body Weight	kg	15	EPA 1989	
	AT- NC	Averaging time - Noncancer	days	2,190	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
	ABS	Dermal Absorption Fraction	unitless	Chemical-Specific	EPA 2004 (2)	
Inhalation	CA	Chemical Concentration in Air	mg/m^3	Chemical-Specific	Chemical-Specific	Exposure Concentration ($\mu g/m^3$ or mg/m^3) =
	CF_1	Conversion Factor	µg/mg	1,000	EPA 2009	CA x CF_1 x ET x EF x ED / AT x CF_2
	ET	Exposure Time	hr/day	24	EPA 2009	Note: CF_1 only used in carcinogenic intake calculations
	EF	Exposure Frequency	day/yr	350	EPA 2014	
	ED-NC	Exposure Duration - Noncancer	yr	6	EPA 2014	
	ED-C	Exposure Duration - Cancer	yr	6	EPA 2014	
	AT- NC	Averaging Time - Noncancer	days	2,190	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF_2	Conversion Factor	hour/day	24	EPA 2009	

(1) Taken from Exhibit 3-5 of USEPA 2004.
(2) Taken from Exhibit 3-4 of USEPA 2004.

BPJ = Best Professional Judgment
EPA = United States Environmental Protection Agency
CDI = chronic daily intake
mg/kg = milligrams per kilogram
kg/mg = kilograms per milligram
mg/cm^2 = milligrams per square centimeter
mg/day = milligrams per day
day/yr = days per year
RME = Reasonable Maximum Exposure
mg/m^3 = milligram per cubic meter
$\mu g/m^3$ = micrograms per cubic meter
cm^2 /event = square centimeters per event
µg/mg = microgram per milligram
kg = kilogram
hr/day = hours per day

TABLE 4-3
VALUES USED FOR CONSTRUCTION WORKER DAILY SOIL INTAKE EQUATIONS
GIBSON SIRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Soil, Air
Exposure Point: Gibson Scrapyard
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/Reference	Intake Equation / Model Name
Ingestion	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	IR	Ingestion Rate	mg/day	330	EPA 2002	CS x IR x EF x ED x CF / (BW x AT)
	EF	Exposure Frequency	day/yr	62	NYSDEC 2006	
	ED	Exposure Duration	yr	1	BPJ	
	BW	Body Weight	kg	80	EPA 2014	
	AT- NC	Averaging Time - Noncancer	days	365	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
Dermal	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	SA	Surface Area for Contact	cm^2/event	3,527	EPA 2014	CS x SA x AF x ABS x EF x ED x CF / (BW x AT)
	AF	Adherence Factor	mg/cm^2	0.30	EPA 2014	
	EF	Exposure Frequency	event/yr	62	NYSDEC 2006	
	ED	Exposure Duration	yr	1	BPJ	
	BW	Body Weight	kg	80	EPA 2014	
	AT- NC	Averaging time - Noncancer	days	365	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
	ABS	Dermal Absorption Fraction	unitless	Chemical-Specific	EPA 2004 (1)	
Inhalation	CA	Chemical Concentration in Air	mg/m^3	Chemical-Specific	Chemical-Specific	Exposure Concentration ($\mu g/m^3$ or mg/m^3) =
	CF_1	Conversion Factor	µg/mg	1,000	EPA 2009	CA x CF_1 x ET x EF x ED / AT x CF_2
	ET	Exposure Time	hr/day	8	EPA 2009	Note: CF_1 only used in carcinogenic intake calculations
	EF	Exposure Frequency	day/yr	62	NYSDEC 2006	
	ED	Exposure Duration	yr	1	BPJ	
	AT- NC	Averaging Time - Noncancer	days	365	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF_2	Conversion Factor	hour/day	24	EPA 2009	

(1) Taken from Exhibit 3-4 of USEPA 2004.

BPJ = Best Professional Judgment
EPA = United States Environmental Protection Agency
CDI = chronic daily intake
mg/kg = milligrams per kilogram
kg/mg = kilograms per milligram
mg/cm^2 = milligrams per square centimeter
mg/day = milligrams per day
day/yr = days per year
RME = Reasonable Maximum Exposure
mg/m^3 = milligram per cubic meter
$\mu g/m^3$ = micrograms per cubic meter
cm^2 /event = square centimeters per event
µg/mg = microgram per milligram
kg = kilogram
hr/day = hours per day

TABLE 4-4
VALUES USED FOR COMMERCIAL\INDUSTRIAL WORKER DAILY SURFACE SOIL INTAKE EQUATIONS
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Future
Medium: Soil
Exposure Medium: Surface Soil, Air
Exposure Point: Gibson Scrapyard
Receptor Population: Commercial\Industrial Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/Reference	Intake Equation / Model Name
Ingestion	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	IR	Ingestion Rate	mg/day	100	EPA 2014	CS x IR x EF x ED x CF / (BW x AT)
	EF	Exposure Frequency	day/yr	250	EPA 2014	
	ED	Exposure Duration	yr	25	EPA 1991a	
	BW	Body Weight	kg	80	EPA 2014	
	AT- NC	Averaging Time - Noncancer	days	9,125	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
Dermal	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	SA	Surface Area for Contact	cm^2/event	3,527	EPA 2014	CS x SA x AF x ABS x EF x ED x CF / (BW x AT)
	AF	Adherence Factor	mg/cm^2	0.02	EPA 2004 (1)	
	EF	Exposure Frequency	event/yr	250	EPA 2014	
	ED	Exposure Duration	yr	25	EPA 1991a	
	BW	Body Weight	kg	80	EPA 2014	
	AT- NC	Averaging time - Noncancer	days	9,125	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
	ABS	Dermal Absorption Fraction	unitless	Chemical-Specific	EPA 2004 (2)	
Inhalation	CA	Chemical Concentration in Air	mg/m^3	Chemical-Specific	Chemical-Specific	Exposure Concentration ($\mu g/m^3$ or mg/m^3) =
	CF_1	Conversion Factor	µg/mg	1,000	EPA 2009	CA x CF_1 x ET x EF x ED / AT x CF_2
	ET	Exposure Time	hr/day	8	EPA 2009	Note: CF_1 only used in carcinogenic intake calculations
	EF	Exposure Frequency	day/yr	250	EPA 2014	
	ED	Exposure Duration	yr	25	EPA 1991a	
	AT- NC	Averaging Time - Noncancer	days	9,125	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF_2	Conversion Factor	hour/day	24	EPA 2009	

(1) Taken from Exhibit 3-3 of USEPA 2004, assuming office/commercial workers would have limited contact with soil. Therefore, a low-end contact adherence factor is selected based upon an adult gardener.
(2) Taken from Exhibit 3-4 of USEPA 2004.

EPA = United States Environmental Protection Agency
CDI = chronic daily intake
mg/kg = milligrams per kilogram
kg/mg = kilograms per milligram
mg/cm^2 = milligrams per square centimeter
mg/day = milligrams per day
day/yr = days per year
RME = Reasonable Maximum Exposure
mg/m^3 = milligram per cubic meter
$\mu g/m^3$ = micrograms per cubic meter
cm^2 /event = square centimeters per event
µg/mg = microgram per milligram
kg = kilogram
hr/day = hours per day

TABLE 4-5
VALUES USED FOR ADOLESCENT TRESPASSER DAILY SURFACE SOIL INTAKE EQUATIONS
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil, Air
Exposure Point: Gibson Scrapyard
Receptor Population: Trespasser
Receptor Age: Adolescent

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/Reference	Intake Equation / Model Name
Ingestion	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	IR	Ingestion Rate	mg/day	100	BPJ (1)	CS x IR x EF x ED x CF / (BW x AT)
	EF	Exposure Frequency	day/yr	31	NYSDEC 2006	
	ED	Exposure Duration	yr	7	BPJ (4)	
	BW	Body Weight	kg	57	EPA 2011	
	AT- NC	Averaging Time - Noncancer	days	3,650	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
Dermal	CS	Chemical Concentration in Soil	mg/kg	Chemical-Specific	Chemical-Specific	CDI (mg/kg/day) =
	SA	Surface Area for Contact	cm^2/event	4,645	EPA 2011 (2)	CS x SA x AF x ABS x EF x ED x CF / (BW x AT)
	AF	Adherence Factor	mg/cm^2	0.20	EPA 2014 (3)	
	ABS	Dermal Absorption Fraction	unitless	Chemical-Specific	EPA 2004	
	EF	Exposure Frequency	event/yr	31	NYSDEC 2006	
	ED	Exposure Duration	yr	7	BPJ (4)	
	BW	Body Weight	kg	57	EPA 2011	
	AT- NC	Averaging time - Noncancer	days	3,650	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	
	CF	Conversion Factor	kg/mg	1.0E-06	EPA 1989	
Inhalation	CA	Chemical Concentration in Air	mg/m^3	Chemical-Specific	Chemical-Specific	Exposure Concentration (ug/m^3 or mg/m^3) =
	ET	Exposure Time	hr/day	4	BPJ (4)	CA x CF_1 x ET x EF x ED / AT x CF_2
	CF_1	Conversion Factor	ug/mg	1,000	EPA 2009	Note: CF_1 only used in carcinogenic intake calculations
	EF	Exposure Frequency	day/yr	31	NYSDEC 2006	
	ED	Exposure Duration	yr	7	BPJ (4)	
	CF_2	Conversion Factor	hr/day	24	EPA 2009	
	AT- NC	Averaging Time - Noncancer	days	3,650	EPA 1989	
	AT- C	Averaging Time - Cancer	days	25,550	EPA 1989	

(1) The incidental soil ingestion rate is assumed to be equal to that of an adult resident.
(2) Taken from Table 7-2 of EPA 2011, for 11 to <16 years. Assuming head, hands, forearms, and lower legs are exposed.
(3) Assumes soil adherence is similar to that of resident child.
(4) The exposure duration is based on the age range evaluated (12 - 18 years of age).

BPJ = Best Professional Judgment
EPA = United States Environmental Protection Agency
CDI = chronic daily intake
mg/kg = milligrams per kilogram
kg/mg = kilograms per milligram
mg/cm^2 = milligrams per square centimeter
mg/day = milligrams per day
day/yr = days per year
RME = Reasonable Maximum Exposure
mg/m^3 = milligram per cubic meter
$\mu g/m^3$ = micrograms per cubic meter
cm^2 /event = square centimeters per event
µg/mg = microgram per milligram
kg = kilogram
hr/day = hours per day

TABLE 5-1
NON-CANCER TOXICITY DATA - ORAL/DERMAL
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value (mg/kg-day)	Oral to Dermal Adjustment Factor (GI ABS) (1)	Adjusted Dermal RfD (2) (mg/kg bw-day)	Primary Target Organ	Uncertainty Factor	Modifying Factor	Sources of RfD: Target Organ	Dates of RfD: Target Organ (3) (mm/dd/yy)
Polychlorinated Biphenyls									
AROCLOR-1242	NA	NA	1.00E+00	NA	NA	NA	NA	NA	NA
AROCLOR-1248	NA	NA	1.00E+00	NA	NA	NA	NA	NA	NA
AROCLOR-1254	Chronic	2.0E-05	1.00E+00	2.0E-05	Immune system, ocular, skin	300	1	IRIS	4/25/2024
AROCLOR-1260	NA	NA	1.00E+00	NA	NA	NA	NA	NA	NA

NA = Not Available
RfD = Reference Dose
mg/kg-day = milligram per kilogram-day
GI ABS = Gastrointestinal Absorption Fraction

(1) Taken from EPA 2004 Guidance.
(2) Dermal toxicological values adjusted from oral values using EPA 2004 recommended chemical-specific gastrointestinal absorption factors (GI ABS). RfDs are multiplied by the GI ABS.
(3) IRIS - Integrated Risk Information System. For IRIS values, the date IRIS was searched is provided. Available at: http://www.epa.gov/iris/
(4) Oral RFD from Aroclor 1016 is applied to Aroclor 1242.
(5) Oral RFD from Aroclor 1054 is applied to Aroclor 1248 and Aroclor 1260.

TABLE 5-2
NON-CANCER TOXICITY DATA - INHALATION
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation (RfC) (mg/m^3)	Primary Target Organ	Uncertainty Factor	Modifying Factor	Sources of RfC Target Organ	Dates (1) (mm/dd/yy)
Polychlorinated Biphenyls							
AROCLOR-1242	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1248	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1254	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	NA	NA	NA	NA	NA	NA	NA

NA = Not Available
RfC = Reference Concentration
mg/m^3 = milligrams per cubic meter
(1) IRIS - Integrated Risk Information System. For IRIS values, the date IRIS was searched is provided. Available at: http://www.epa.gov/iris/

TABLE 5-3
CHEMICAL-SPECIFIC PARAMETERS
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Chemical of Potential Concern	Absorption Factor	Reference	GI ABS	Reference
Polychlorinated Biphenyls				
AROCLOR-1242	0.14	EPA, 2004	1.00E+00	EPA, 2004
AROCLOR-1248	0.14	EPA, 2004	1.00E+00	EPA, 2004
AROCLOR-1254	0.14	EPA, 2004	1.00E+00	EPA, 2004
AROCLOR-1260	0.14	EPA, 2004	1.00E+00	EPA, 2004

NA = Data not available.
GI ABS = Gastrointestinal Absorption Fraction
EPA, 2004 = U.S. Environmental Protection Agency, 2004. *Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment).* Final Guidance.

TABLE 6-1
CANCER TOXICITY DATA - ORAL/DERMAL
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor (GI ABS) (1)	Absorbed Cancer Slope Factor for Dermal (2)	Units	Weight of Evidence/Cancer Guideline Description	Mutagenic Compound	Source	Date (3) (mm/dd/yy)
Polychlorinated Biphenyls								
AROCLOR-1242	2.0E+00	1.00E+00	2.0E+00	per (mg/kg-day)	B2	--	IRIS	4/24/2025
AROCLOR-1248	2.0E+00	1.00E+00	2.0E+00	per (mg/kg-day)	B2	--	IRIS	4/24/2025
AROCLOR-1254	2.0E+00	1.00E+00	2.0E+00	per (mg/kg-day)	B2	--	IRIS	4/24/2025
AROCLOR-1260	2.0E+00	1.00E+00	2.0E+00	per (mg/kg-day)	B2	--	IRIS	4/24/2025

M = Mutagenic mode of action
NA = Not Available
mg/kg-day = milligram per kilogram-day
GI ABS = Gastrointestinal Absorption Fraction

(1) Taken from USEPA 2004 Guidance.
(2) Dermal Toxicological values adjusted from oral values using USEPA 2004 recommended chemical-specific gastrointestinal absorption factors (GI ABS). Cancer slope factors are divided by the GI ABS.
(3) IRIS - Integrated Risk Information System. For IRIS values, the date IRIS was searched is provided. Available at: http://www.epa.gov/iris/
Weight of Evidence:
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

TABLE 6-2
CANCER TOXICITY DATA - INHALATION
GIBSON SCRAPYARD (Site: 851058)
CORNING, STEUBEN COUNTY, NEW YORK

Chemical of Potential Concern	Unit Risk		Weight of Evidence/Cancer Guideline Description	Mutagenic	Unit Risk	
	Value	Units			Source	Date [1]
Polychlorinated Biphenyls						
AROCLOR-1242	5.7E-04	per (ug/m^3)	B2	--	IRIS	4/25/2024
AROCLOR-1248	5.7E-04	per (ug/m^3)	B2	--	IRIS	4/25/2024
AROCLOR-1254	5.7E-04	per (ug/m^3)	B2	--	IRIS	4/25/2024
AROCLOR-1260	5.7E-04	per (ug/m^3)	B2	--	IRIS	4/25/2024

M = Mutagenic Mode of Action
NA = Not Available
(1) IRIS - Integrated Risk Information System. For IRIS values, the date IRIS was searched is provided. Available at: http://www.epa.gov/iris/

Weight of Evidence:
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

Attachment 1

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Attachment 1 - Table 1
ProUCL Inputs - Subsurface Soil

Sample Name	PCB-1242 (Aroclor 1242)	d_PCB-1242 (Aroclor 1242)	PCB-1254 (Aroclor 1254)	d_PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	d_PCB-1260 (Aroclor 1260)
850158-SB-MW01-25FT-01062021	0.2	0	0.2	0	**0.66**	**1**
850158-SB-MW01-6FT-01062021	5.3	0	5.3	0	**97**	**1**
850158-SB-MW01-20FT-01062021	0.27	0	0.27	0	**2.3**	**1**
850158-SB-MW02-5FT-01072021	0.25	0	0.25	0	0.25	0
850158-SB-MW02-8FT-01072021	0.27	0	0.27	0	**0.18**	**1**
850158-SB-MW02-13FT-01072021	0.21	0	0.21	0	**0.79**	**1**
850158-SB-MW03-6FT-01082021	0.25	0	**2.6**	**1**	0.25	0
850158-SB-MW03-7FT-01082021	0.23	0	0.23	0	0.23	0
850158-SB-MW03-12FT-01082021	0.2	0	0.2	0	0.2	0
850158-SB-MW04-5FT-01092021	**46**	**1**	5.4	0	**160**	**1**
850158-SB-MW04-13FT-01092021	0.21	0	0.21	0	**0.18**	**1**
850158-SB-MW04-16FT-01092021	0.21	0	0.21	0	0.21	0
850158-SB-MW05-5FT-01102021	**0.14**	**1**	0.022	0	**0.24**	**1**
850158-SB-MW05-7FT-01102021	0.0025	0	0.0025	0	0.0025	0
850158-SB-MW05-11FT-01102021	**6**	**1**	**13**	**1**	1.3	0
850158-SB-MW06-6FT-01112021	0.21	0	0.21	0	0.21	0
850158-SB-MW06-11FT-01112021	**1.4**	**1**	0.25	0	**7.6**	**1**
850158-SB-MW06-16FT-01112021	0.22	0	0.22	0	0.22	0

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Appendix C

Tables

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Table 1-1. Total PCBs Analytical Data Summary
2010 Phase II Site Investigation

Location	Sample ID	Sample Type	Sample Depth (ft bgs)	Total PCBs (mg/kg)
Soil Borings				
SB-01	EP-W-07-094-SB01 (0-2)	Soil Boring Grab	0-2	***23***
SB-02	EP-W-07-094-SB02 (0-2)	Soil Boring Grab	0-2	0.082
SB-02	EP-W-07-094-SB02 (4-6)	Soil Boring Grab	4-6	*0.83*
SB-02	EP-W-07-094-SB02 (10-13)	Soil Boring Grab	10-13	ND
SB-02	EP-W-07-094-SB02 (16-20)	Soil Boring Grab	16-20	ND
SB-03	EP-W-07-094-SB03 (2-3)	Soil Boring Grab	2-3	***35***
SB-03	EP-W-07-094-SB03 (8-12)	Soil Boring Grab	8-12	0.04
SB-03	EP-W-07-094-SB03 (15-17)	Soil Boring Grab	15-17	ND
SB-04	EP-W-07-094-SB04 (0-2)	Soil Boring Grab	0-2	ND
SB-04	EP-W-07-094-SB04 (4-6)	Soil Boring Grab	4-6	*0.28*
SB-04	EP-W-07-094-SB04 (10-12)	Soil Boring Grab	10-12	ND
SB-04	EP-W-07-094-SB04 (18-20)	Soil Boring Grab	18-20	ND
SB-04	EP-W-07-094-SB-DUP-01	Soil Boring Grab	18-20	ND
SB-05	EP-W-07-094-SB05 (0-4)	Soil Boring Grab	0-4	***8.7***
SB-05	EP-W-07-094-SB05 (9-11)	Soil Boring Grab	9-11	***110***
SB-06	EP-W-07-094-SB06 (0-1)	Soil Boring Grab	0-1	***48***
SB-07	EP-W-07-094-SB07 (0-2)	Soil Boring Grab	0-2	***18***
SB-08	EP-W-07-094-SB08 (0-2)	Soil Boring Grab	0-2	***39***
SB-08	EP-W-07-094-SB08 (8-11)	Soil Boring Grab	8-11	***26***
SB-08	EP-W-07-094-SB08 (13-15)	Soil Boring Grab	13-15	***4.09***
SB-09	EP-W-07-094-SB09(0-4)	Soil Boring Grab	0-4	***1.7***
SB-09	EP-W-07-094-SB09(8-10)	Soil Boring Grab	8-10	***2.3***
SB-09	EP-W-07-094-SB09(13-15)	Soil Boring Grab	13-15	ND
Test Pits				
TP-01	EP-W-07-094-TP01	Test Pit Grab	8-9	***1.08***
TP-02	EP-W-07-094-TP02	Test Pit Grab	4-5	ND
TP-03	EP-W-07-094-TP03	Test Pit Grab	3-4	0.076
TP-04	EP-W-07-094-TP04(2)	Test Pit Grab	2-3	*0.9*
TP-04	EP-W-07-094-TP04(9.5)	Test Pit Grab	9.5-10.5	ND
TP-05	EP-W-07-094-TP05	Test Pit Grab	5-6	***3.5***
TP-06	EP-W-07-094-TP06(2-4)	Test Pit Grab	2-4	***7.7***
TP-06	EP-W-07-094-TP06(8-10)	Test Pit Grab	8-10	*0.48*
TP-07	EP-W-07-094-TP07	Test Pit Grab	4-5	***93***
TP-08	EP-W-07-094-TP08	Test Pit Grab	4-5	***12.4***
TP-09	EP-W-07-094-TP09	Test Pit Grab	2-3	***103***
TP-10	EP-W-07-094-TP10	Test Pit Grab	3-4	84
TP-11	EP-W-07-094-TP11	Test Pit Grab	2-3	*0.358*
TP-12	EP-W-07-094-TP-12	Test Pit Grab	5-6	***38***
TP-13	EP-W-07-094-TP13	Test Pit Grab	3.5-4.5	*0.24*
TP-14	EP-W-07-094-TP14	Test Pit Grab	4-5	***46***
TP-15	EP-W-07-094-TP15	Test Pit Grab	4-5	***28***
TP-15	EP-W-07-094-TP-DUP	Test Pit Grab	3.5-4.5	ND

Notes

Results in italics exceed 0.1 mg/kg NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Results in bold exceed 1 mg/kg NYSDEC Part 375 Commercial Use Soil Cleanup Objective

Results shaded with light gray exceed 25 mg/kg 40 CFR 761.61 Low Occupancy Cleanup Level

Results shaded with dark gray exceed 100 mg/kg 40 CFR 761.61 Low Occupancy Cleanup Level Below Cap

DUP = Duplicate

ft bgs = Feet below ground surface

mg/kg = Milligram(s) per kilogram

ND = Non-detect

PCB = Polychlorinated biphenyl

Table 1-2. Total PCBs Analytical Data Summary
2019-2021 Remedial Investigation

Location	Sample ID	Sample Type	Sample Depth (ft bgs)	Total PCBs (mg/kg)
Surface Soil				
SS-01	850158-SS-01-12102019	Surface Soil Grab	0-0.5	0
SS-02	850158-SS-02-12102019	Surface Soil Grab	0-0.5	***7***
SS-03	850158-SS-03-12102019	Surface Soil Grab	0-0.5	0
SS-04	850158-SS-04-12102019	Surface Soil Grab	0-0.5	***52***
SS-05	850158-SS-05-12102019	Surface Soil Grab	0-0.5	*0.24*
SS-06	850158-SS-06-12102019	Surface Soil Grab	0-0.5	***2.7***
SS-07	850158-DUP-01-121019-20191210	Surface Soil Grab	0-0.5	***1.4***
SS-07	850158-SS-07-12102019	Surface Soil Grab	0-0.5	0
SS-08	850158-SS-08-12102019	Surface Soil Grab	0-0.5	***1***
SS-09	850158-SS-09-12102019	Surface Soil Grab	0-0.5	*218*
SS-10	850158-SS-10-12102019	Surface Soil Grab	0-0.5	*0.57*
SS-11	850158-SS-11-12102019	Surface Soil Grab	0-0.5	***65***
SS-12	850158-SS-12-12102019	Surface Soil Grab	0-0.5	***69***
SS-13	850158-SS-13-12112019	Surface Soil Grab	0-0.5	***50***
SS-14	850158-SS-14-12112019	Surface Soil Grab	0-0.5	***27***
Subsurface Soil				
SB-MW-01	850158-SB-MW01-6FT-01062021	Soil Boring Grab	6-7	***97***
SB-MW-01	850158-SB-MW01-20FT-01062021	Soil Boring Grab	20-21	***2.3***
SB-MW-01	850158-SB-MW01-25FT-01062021	Soil Boring Grab	25-26	*0.66*
SB-MW-02	850158-SB-MW02-5FT-01072021	Soil Boring Grab	5-6	0
SB-MW-02	850158-SB-MW02-8FT-01072021	Soil Boring Grab	8-9	*0.18*
SB-MW-02	850158-SB-MW02-13FT-01072021	Soil Boring Grab	13-14	*0.79*
SB-MW-03	850158-SB-MW03-6FT-01082021	Soil Boring Grab	6-7	***2.6***
SB-MW-03	850158-SB-MW03-7FT-01082021	Soil Boring Grab	7-8	0
SB-MW-03	850158-SB-MW03-12FT-01082021	Soil Boring Grab	12-13	0
SB-MW-04	850158-SB-MW04-5FT-01092021	Soil Boring Grab	5-6	*206*
SB-MW-04	850158-SB-MW04-13FT-01092021	Soil Boring Grab	13-14	*0.18*
SB-MW-04	850158-SB-MW04-16FT-01092021	Soil Boring Grab	16-17	0
SB-MW-04	DUP-01092021-1	Soil Boring Grab	13-14	0
SB-MW-05	850158-SB-MW05-5FT-01102021	Soil Boring Grab	5-6	*0.38*
SB-MW-05	850158-SB-MW05-7FT-01102021	Soil Boring Grab	7-8	0
SB-MW-05	850158-SB-MW05-11FT-01102021	Soil Boring Grab	11-12	***19***
SB-MW-06	850158-SB-MW06-6FT-01112021	Soil Boring Grab	6-7	0
SB-MW-06	850158-SB-MW06-11FT-01112021	Soil Boring Grab	11-12	***9***
SB-MW-06	850158-SB-MW06-16FT-01112021	Soil Boring Grab	16-17	0

Notes

Results in italics exceed 0.1 mg/kg NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Results in bold exceed 1 mg/kg EPA Unrestricted Use and NYSDEC Part 375 Commercial Use Soil Cleanup Objective

Results shaded with light gray exceed 25 mg/kg 40 CFR 761.61 Low Occupancy Cleanup Level

Results shaded with dark gray exceed 100 mg/kg 40 CFR 761.61 Low Occupancy Cleanup Level Below Cap

DUP = Duplicate

ft bgs = Feet below ground surface

mg/kg = Milligram(s) per kilogram

ND = Non-detect

PCB = Polychlorinated biphenyl

Appendix D

Prior Reports
(OneDrive Links Sent Via Email)

- **2010 Phase II Site Investigation Report**
- **2021 Remedial Investigation Report**

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Appendix E

Certification

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Certification

All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the location designated in the certificate and are available for EPA inspection.

Files are located at the following location:

https://extapps.dec.ny.gov/data/DecDocs/851058/

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signature and printed name of owner of property or representative — Date

EA ENGINEERING, P.C.

Donald Conan, P.E., P.G.
Vice President — 17 January 2025

Signature and printed name of party authoring cleanup plan — Date

To be determined by NYSDEC and submitted to USEPA prior to commencement of cleanup action

Signature and printed name of party conducting cleanup — Date

The Gibson Scrapyard Site (Site) consists of three parcels located at 2972 Main Street in the Hamlet of Gibson, Town of Corning, New York owned by Corning Materials, Inc./Corning Waste Materials, Inc.

The Site meets New York State's definition of an inactive hazardous waste disposal site due to the confirmed presence of hazardous waste which constitutes a significant threat to public health or the environment (New York State Environmental Conservation Law ["ECL"] §§27-1301 and 27-1313). The site is listed as a Class 2 Inactive Hazardous Waste Site pursuant to ECL §27-1305. The State has the statutory authority under the Environmental Conservation Law to access the site under 27-1309 (3)/(4) and 27-1313(8) to implement the remedy and perform site management.

At sites where responsible parties cannot be found or are unable or unwilling to fund an investigation, the State pays for the investigation using money from the 1986 Environmental Quality Bond Act, also known as the "State Superfund (ECL 27-1313 and Part 375-2.11 of Title 6 of the New York Codes, Rules and Regulations [6 NYCRR]). The State may try to recover costs from the responsible party after the investigation and cleanup are complete.

The Site is considered an orphan site since there are no viable responsible parties for the remaining remediation required. Richard Wallace was the former owner of Corning Waste Materials, Inc., and is deceased. His heirs have been non-responsive and have not assumed ownership of the land or company. Accordingly, it is unlikely that a representative of Richard Wallace or Corning Materials, Inc./Corning Waste Materials, Inc. will sign any Toxic Substances Control Act (TSCA)-required documentation or provide an environmental easement to the NYSDEC. In this case, the State will use Environmental Notices to create a public record of the Site's status that will appear in future title searches when there is no owner to grant an environmental easement, and the Site will remain on the registry of inactive hazardous waste sites as a Class 2 site unless and until an environmental easement is placed on the property.

In the event the State is approached regarding a future change of ownership, the responsibility for performing site management and placement of an environmental easement will be negotiated in exchange for a liability release.