



Department of
Environmental
Conservation



Department
of Health

Frequently Asked Questions Study Area Site

Corning, Steuben County, NY; Site #851046

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Overview

Background

The Study Area Site is located in the northeastern portion of the City of Corning, in Steuben County, New York. The Study Area is bounded by the Chemung River to the south, Post Creek to the east, Interstate-86 to the north, and Pyrex Street to the west.

During the 2012 demolition of the former Kent Phillips School and improvements to the Corning Painted Post (CPP) High School (both located within the Study Area), workers encountered ash, brick and/or glass during excavations. Based on the elevated levels of lead and cadmium, some of this material was determined to be hazardous waste, which is a legal designation that requires the material to have special handling and disposal. In addition to lead and cadmium, the school property contained elevated levels of other metals such as arsenic, barium, chromium, and mercury that exceeded New York State soil cleanup objectives (SCOs), which are contaminant- and land use-specific soil concentrations that are protective of public health and the environment. New York State Department of Environmental Conservation (NYSDEC) determined that the presence of the ash, brick and/or glass and the contaminant levels warranted additional investigation at the school property and at nearby properties within the Study Area.

NYSDEC requested Corning Incorporated to begin an investigation to further characterize the nature and extent of ash, brick and/or glass within the Study Area. Corning Incorporated entered into a Consent Order with NYSDEC to conduct the investigation and has implemented multiple NYSDEC-approved work plans, including the “Study Area Characterization Work Plan” and Addenda. NYSDEC, in consultation with New York State Department of Health (NYSDOH), undertook the initial characterization of the residential properties in the Expansion Area. Remedial actions at the CPP High School, Corning Christian Academy and Memorial Stadium are complete and institutional and engineering controls are being pursued.

NYSDEC issued a Final Decision Document in July 2017 requiring the cleanup of residential properties within the Study Area to include the removal of soil up to two feet below ground surface (bgs) if it exceeds residential SCOs or contains a layer of ash, brick and/or glass. Additional sampling to complete the characterization of the Study Area is ongoing pursuant to NYSDEC-approved work plans.

As of February 2020, NYSDEC has issued “No Further Action” (NFA) letters for 125 properties where sampling results met residential soil cleanup objectives defined in 6NYCRR Part 375, which are contaminant-specific soil concentrations that are protective of public health in a residential setting. The remaining 196 properties are expected to either be remediated, require additional pre-design investigation, are being considered for no further action, or have not granted access. Remediation was completed on 3 properties in 2018. The State has also reviewed designs for 70 properties during the 2019 construction season, of which designs for 59 properties were approved (the remaining 11 are currently under review or awaiting

resubmission). Accounting the 21 properties completed in 2019, there are 38 properties with State approved remedial designs in line for remedial construction activities for 2020.

What is the Study Area?

The Study Area is in the City of Corning, New York. It is generally bound by the Chemung River to the south; Post Creek to the east, Interstate-86 to the north and Pyrex Street to the west. The Study Area is divided into five operable units. Operable Units (OUs) are portions of a site that are addressed individually. Corning Incorporated is responsible for investigation and remediation of OU1 through OU5 pursuant to the December 4, 2017 Order on Consent and Administrative Settlement, Index No. CO 8-20171204-140.

The OU areas are shown below:

- OU-1: Residential Area including 211 residential properties and Houghton Park. It is bounded by school properties to the south, NYS Flood Control lands to the east, East Pulteney Street to the north, and Pyrex Street to the west.
- OU-2: Residential Area at the eastern end of Corning Boulevard (includes 5 residential properties).
- OU-3: School/Community Use Area includes properties owned by the CPP School District, Corning Christian Academy and City of Corning (Memorial Stadium and Firehouse Frontage parcel).
- OU-4: Flood Control Areas include the southern and easternmost portions of the Study Area including flood control structures, levees, and adjacent portions of the Chemung River and Post Creek.
- OU-5: Residential Expansion Area (includes 109 residential properties). The residential areas immediately to the north and west of the boundaries of OU1. The Expansion Area is further bounded by I86 to the north, Centerway (NYS Route 414) to the west, and the Guthrie Medical Center property to the South.

Why was an investigation of the Study Area conducted?

The CPP High School property and much of the surrounding neighborhood is a former low-lying area along the Chemung River that has been extensively filled since the 1930s (or earlier) to the late 1950s or early 1960s, when the schools were constructed. A 1920 property deed contains a condition that allowed Corning Glass Works to maintain “ash dumps as now located” in a portion of the current Study Area.

The presence of ash, brick and/or glass at CPP High School came to NYSDEC’s attention at the outset of excavation work during the spring of 2012. At that time, the extent of the material was not known. Further testing has confirmed that parts of the neighboring residential area is underlain by the same or similar ash, brick and/or glass as identified at the CPP High School. Of the 220 samples collected for waste characterization at the school property, 65 samples contained hazardous levels of lead and three tested hazardous for cadmium, which required special handling and disposal. In addition to lead and cadmium, other samples contain metals such as arsenic, barium, chromium, and mercury at levels that warrant additional characterization but did not exceed levels considered to be “hazardous waste” as defined below. NYSDEC determined the presence of this material warranted additional investigation at the school property and in nearby properties within the Study Area.

The NYSDEC and NYSDOH continue to work jointly with Corning Incorporated, the school district, individual property owners and other stakeholders in the Study Area to characterize the nature and extent of ash, glass and/or brick, as well as to remediate areas where the site characterization has been completed.

What is meant by hazardous waste?

The term hazardous waste is a regulatory designation. In New York State, hazardous wastes are defined by U.S. Environmental Protection Agency and NYSDEC regulations (see <http://www.dec.ny.gov/chemical/100401.html>). Simply defined, a hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Hazardous waste is generated from many sources, ranging from industrial manufacturing process wastes to batteries and may come in many forms, including liquids, solids gases, and sludges.

The treatment, storage and disposal of hazardous waste are regulated under the federal Resource Conservation and Recovery Act (RCRA) of 1976. Hazardous wastes are defined under RCRA in 40 CFR 261 where they are divided into two major categories: characteristic wastes and listed wastes. Characteristic hazardous wastes are materials that are known or tested to exhibit one or more of the following four hazardous traits: ignitibility, reactivity, corrosivity, or toxicity.

Soil and ash, brick and/or glass in the Study Area was tested to see if it should be designated hazardous waste by using a test known as the Toxicity Characteristic Leaching Procedure (TCLP). TCLP is a soil sample extraction method employed to simulate leaching through a landfill and to assess the potential for contamination in the material being tested (soil) to get in groundwater. Designation of the soil and/or ash, brick and/or glass in the Study Area as hazardous waste is not directly related to the potential for human exposure or health risks; rather, it tells us that the materials if removed require special handling and disposal in a hazardous waste landfill. Listed hazardous wastes do not apply to soils in the Study Area.

Why was an investigation of the Expansion Area Conducted?

Characterization work completed in the Study Area by Corning Incorporated in 2014 identified the presence of target material (ash, brick, and/or glass) extending to the project boundaries at East Pulteney Street and Pyrex Street near the intersection with Houghton Circle. This type of material frequently exhibited elevated concentrations of metals including lead, arsenic, and cadmium. Some of the target material in the northwestern portion of the Study Area also tested as hazardous waste for lead. Preliminary shallow soil evaluation work completed by NYSDEC in the off-site Expansion Area in 2014 identified the presence of similar material on multiple properties. NYSDEC initiated a comprehensive characterization of the Expansion Area under the State Superfund Program in May 2015.

What characterization activities have been completed?

Most of the investigation activities in the Study Area have been completed. Specific details of the investigation activities can be found in the NYSDEC-approved investigation work plans, which are available online at <http://www.dec.ny.gov/chemical/97180.html> and at the locations identified below under “Where to Find Information.”

In general, investigation activities included the installation of monitoring wells and soil sampling to look for the presence of ash, brick and/or glass or constituents which exceed the state’s Soil Cleanup Objectives (SCOs). The characterization will also investigate the thickness and integrity of the new soil placed on the athletic fields of CPP High School and has already confirmed the mulch/ground cover at the Corning Christian Academy and Houghton Park playgrounds are sufficient. Seven groundwater monitoring wells were installed and sampling of these wells demonstrated that the constituents of concern are not adversely impacting groundwater.

What kinds of environmental samples have been collected to date? What was the purpose of taking the samples?

Soil characterization samples were collected within OU-1, OU-2 of the Study Area beginning in 2014 to assess the nature and extent of layers of ash, brick, and/or glass and to measure contaminant concentrations. Characterization activities began in OU-5 in 2015. This characterization included collection of more than 4,400 soil samples including surface soil and soil borings from residential properties; soil boring samples within the City of Corning's right-of-ways; and soil samples from test pit excavations. The soil sampling had three general purposes:

1. To examine the nature and extent of the presence of a layer of ash, brick and/or glass,
2. To determine if levels in soil exceed the applicable New York State SCOs, and
3. To evaluate if the constituents of concern meet the criteria that would make it "hazardous waste".

Soil samples were targeted for depths where people are most likely to come in contact with soil through activities like yard work or play (surface soil, zero to two inches below ground surface), and shallow soils (two to 24 inches) where people would contact while digging below the surface, such as when planting a tree, gardening, or making home improvements. Soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based on the investigation, the primary constituents of concern in soil are lead, arsenic, cadmium and SVOCs.

Groundwater samples were collected from seven groundwater monitoring wells installed on school and City property, the school's irrigation well (used to water athletic fields as needed in dry weather), and an adjacent public water supply well to evaluate if the substances in the ash, brick and/or glass are getting into groundwater within the Study Area. Groundwater monitoring to date has not identified levels of site-related constituents above groundwater standards. The area is served by public water and there are no private water supplies other than the school's irrigation well

What is the status of Operable Unit (OU)-3 and OU-4?

OU-3, the School/Community Use Area includes the CPP School District, Corning Christian Academy and City of Corning Memorial Stadium properties. A decision document was issued for this OU in 2017. Remedial work is complete and institutional and engineering controls are being pursued for the Corning Christian Academy, Memorial Stadium and CPP High School. All three areas require an Environmental Easement and Site Management Plan, while the Corning Painted Post High School athletic fields requires an investigation to ensure the adequacy of the existing cover. The environmental easements are being developed to require the completion and submission of a periodic certification that institutional and engineering controls remain in place, allow the use and development of the controlled property for restricted residential use and require compliance with the NYSDEC approved Site Management Plan.

OU-4, includes Flood Control Areas along the Chemung River and Post Creek. Preliminary investigations identified ash, brick and/or glass. A site characterization work plan is currently being developed.

What is the status of properties outside the Study Area which potentially have similar concerns?

The NYSDEC, along with the NYSDOH and Department of Law (DOL), are responsible for ensuring the cleanup of inactive hazardous waste disposal sites across the state. Under

New York State's Inactive Hazardous Waste Disposal Site Remedial Program, the process begins with the discovery of a potential hazardous waste site and follows a path of investigation, remedy selection, design, construction and monitoring. A Site Characterization (SC) is DEC's first investigation of a site where hazardous waste has or may have been disposed of illegally or improperly. The goal of the SC is to determine whether a site meets the state's definition of a hazardous waste site by confirming or denying the presence of hazardous waste and determining whether the site poses a significant threat to public health or the environment. The SC is performed by NYSDEC or the potentially responsible party under DEC's oversight.

With respect to properties outside the Study Area, NYSDEC is currently pursuing Orders on Consent for Site Characterizations to be performed at the following locations which are suspected of having target material (ash, brick, and/or glass) similar to the Study Area:

- Site ID #851047 Centerway Pedestrian Bridge Approach - located at Center Way/Corning Boulevard in Corning, NY.
- Site ID #851037 Steuben Glass LLC - located at One Museum Way in Corning, NY.
- Site ID #851054 Former Days Inn - located at 23 Riverside Drive in Corning, NY. This site recently submitted an approvable final engineering report and a site management plan. The site characterization and interim remedial measure work has been completed.
- Site ID #851056 McKinney Park – located at W Third Street with Lexington Street, Corning, NY. The site is under preliminary site characterization and is a proposed “P Site” listing.
- Site ID #851055 William St. Park – located at Hillvue Avenue, Corning, NY. The site is under preliminary site characterization and is a proposed “P Site” listing.
- Stewart Park Site – located at Thorn Street with Sly Avenue Ext, Corning, NY. The site is under preliminary site characterization and is a proposed “P Site” listing.

What are the constituents of concern in the Study Area?

Data from surface soil and subsurface soil samples indicate analytical results above the New York State SCOs, arsenic, cadmium, lead and SVOCs are the constituents of potential concern (COPC) in the Study Area. The SVOCs primarily consist of polycyclic aromatic hydrocarbons (PAHs) including 2-methylnaphthalene; benz(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene.

What are arsenic, cadmium and lead?

Arsenic, cadmium and lead are natural elements in the earth's crust and can be found in soils, rocks, groundwater and surface water. Most arsenic is produced as a by-product of copper and lead refining or by heating the mineral arsenopyrite causing the arsenic to sublime (change directly from a solid to a gas) and leave behind iron sulfide. Commercially, arsenic has been used in the production of agricultural products (pesticides, herbicides and insecticides); treatment for wood products (wood preservatives); veterinary drugs; and to make special glass. Arsenic is sometimes alloyed with lead to form a harder, more durable metal for use in things like car batteries and bullets.

Soils and rocks, including coal and mineral fertilizers, contain some cadmium. Most cadmium used in the United States is extracted during the production of other metals like zinc, lead, and copper. Cadmium does not corrode easily and has many uses, including batteries, metal coatings, and plastics. Cadmium has also been used in pigments as a coloring agent which can produce a range of brilliant shades of yellow, orange, red and

maroon. Cadmium pigments have been used in plastics, ceramics, glasses and special paints.

Although lead is a naturally occurring heavy metal that can be found in soil and dust, the majority of lead present in the environment is due to human activity. It was once widely used in gasoline and paint, and is commonly used in the production of automotive batteries, ammunition, metal products (solder and pipes), ceramic products, caulking, and shields against x-rays. Lead was also released from mining lead (extracted from ores dug from underground mines) and other metals, and from factories that make or use lead, lead alloys and lead compounds. Lead is also commonly used in glass such as television picture tubes, computer video display terminals and the inner portion of the common lightbulb. Lead was historically used in the manufacture of certain glass products by Corning Incorporated and other companies.

What are SVOCs and PAHs?

SVOCs are a subgroup of volatile organic compounds (VOCs) with higher boiling points and a lower potential to volatilize (evaporate into air) compared to VOCs. PAHs are a subgroup of SVOC compounds that occur naturally in coal, crude oil and gasoline. They are also produced by incomplete combustion when coal, oil, gas, wood, garbage and tobacco are burned. PAHs generally occur as complex mixtures (as part of combustion products such as soot/ash residue), not as single compounds.

What are the results of the environmental samples that have been collected to date by Operable Unit?

Soil Sampling Results

OU1- Residential Area

In right-of-way (ROW) areas, 1 of 24 initial soil borings installed in 2014 contained a layer of ash, brick and/or glass and 2 had analytical results that exceeded SCOs. Additional study was also done in ROW areas around two soil borings with SCO exceedances in the northwest area and other targeted locations throughout OU1. In total, 63 soil borings and 7 test pits have been completed in the ROW areas. Findings of a layer of ash, brick and/or glass and SCO exceedances in ROW soil borings are generally consistent with borings on adjacent residential properties as discussed below.

Surface soil samples were collected from 163 of the 211 residential properties in OU1 during 2014. SCOs were exceeded in surface soil samples at 36 of the 163 residential properties. An additional 8 properties had surface soil samples collected in 2015; SCOs were exceeded at 1 property.

Study Area Characterization Work Plan Addendum 2 was approved by NYSDEC in May 2015. The residential properties at which additional sampling took place were in the following four categories:

- properties with exceedances of residential SCOs in surface soil samples,
- properties in the northwest portion of the Study Area near a layer of ash, brick, and/or glass identified in ROW soil borings,
- properties at which the presence of ash brick and/or glass had been reported by the owner or observed during sampling, and
- properties at which a layer of material containing ash, brick and/or glass potentially extended to a property line from an adjacent property.

Soil boring samples were taken at 115 residential properties in the above categories from July through October 2015. Layers of ash, brick and/or glass (minimum one-inch thickness) were found at 51 of these residential properties, including 21 in the north to northwest areas (Pyrex Street/East Pulteney Street to Wilson Street), 5 properties near the middle of Houghton Circle/Pyrex Street, 12 properties near middle of Pershing Street and Sims Avenue (Argonne Street to Belleau Street), 9 properties in the northeast portion (E. Pulteney Street, Argonne Street, Jackson Circle), and 4 properties in the southeast portion (Corning Boulevard/Roosevelt Street). Trace amounts of ash, brick and/or glass (less than a one-inch layer) were identified at an additional 8 residential properties.

Testing results at 69 of these 115 residential properties exceeded the SCOs. These exceedances frequently correlate to layers of ash, brick and/or glass; however, there are some instances of SCO exceedances not within or adjacent to a layer of ash, brick and/or glass. TCLP test results for lead, cadmium, and/or barium exceeded the regulatory threshold for hazardous waste at 17 of these properties and each of these occurrences correlate to a layer of ash, brick and/or glass.

OU2 - Residential Area at the Eastern End of Corning Boulevard

Soil borings completed in 2014 identified a substantial amount of target material (ash, brick, and/or glass) to depths greater than 10 feet at each of the five residential properties in OU2. Testing results show significant exceedances of SCOs as well as hazardous waste levels of lead in this material. The limits of this large area with ash, brick and/or glass were defined to the north and west and it does not extend to adjacent residential properties in OU1. The area with this material is contiguous with adjacent portions of the CPP High School property in OU3 to the south. Further delineation to the east into the adjacent flood control areas of OU4 has not yet been undertaken (a Site Characterization work plan is currently being developed). Actions were taken at these properties in December 2014 to reduce the potential for contact with bare soil. Site management procedures are in place at these properties to minimize potential exposures if residents remain in the homes.

OU3 - School/Community Use Areas

At the CPP High School and Memorial Stadium, the school district collected soil samples from piles containing excavated material during the 2012-2014 construction activities. Of 214 soil pile samples analyzed for total concentrations of metals, SCOs were exceeded for arsenic and cadmium in about half of the samples, and for lead in about one third of the samples. Seventy-three of 268 soil samples met the hazardous waste criteria. These soil piles have been removed from the school property. The finding of hazardous waste required disposal of approximately 20% of the excavated material at a hazardous waste landfill.

Environmental sampling performed to date as part of the Study Area Characterization Work Plan has confirmed the presence of a layer of ash, brick and/or glass and exceedances of the applicable SCOs at various locations in OU3 including CPP High School, Corning Christian Academy, Memorial Stadium, and the Firehouse Frontage parcel. Testing results exceed applicable SCOs for each of these properties in most of the target soils containing this material.

In the summer of 2015, the CPP School District installed a new artificial turf field and resurfaced the adjacent track at Memorial Stadium to act. The artificial turf field will also serve as a cover system over contaminated material containing ash, brick, and/or glass. The District previously installed at least one foot of soil cover at the majority of the CPP High School property as part of their school expansion project. The Study Area Characterization work identified certain limited areas outside of these cover systems at the Memorial Stadium and CPP High School properties with shallow soil testing results in excess of SCOs.

In addition, an area containing a layer of ash, brick and/or glass and with exceedances of the applicable SCOs was identified at the Corning Christian Academy property with testing results that exceed SCOs.

Corning Incorporated has implemented Interim Remedial Measures (IRMs) at the CPP High School, Memorial Stadium, and Corning Christian Academy properties to address shallow soils that contain a layer of ash, brick and/or glass and/or have testing results that exceed SCOs outside of any previously installed cover systems. These soils were excavated and backfilled with soil that meets SCOs. IRM Work Plans for these three properties have been separately noticed for public review prior to NYSDEC approval. See “What is an Interim Remedial Measure” below for further information.

OU4 - Flood Control Areas

A work plan to address the site characterization of these areas is currently being developed.

OU5 - Expansion Area

Soil boring samples were taken and surface soil samples were collected at 104 of the 108 residential properties in OU5 from September through November 2015). Layers of ash, brick and/or glass (min 1-inch thickness) were confirmed at 50 residential properties, including twenty-one (21) west of Pyrex Street (North Place, South Place, south side of East Pulteney Street), ten (10) on High Street, seven (7) on Earl Street, four (4) on Clara Street, one (1) on James Street, and seven (7) on the north side of East Pulteney Street. Trace amounts of ash, brick and/or glass (less than a one-inch layer) were identified at an additional 30 residential properties in OU5.

Testing results at 64 of the 104 residential properties in OU5 that were sampled exceed the SCOs. These exceedances frequently correlate to layers of ash, brick and/or glass; however, there are some instances of SCO exceedances not within or adjacent to a layer of ash, brick and/or glass. Concentrations of TCLP test results for lead, cadmium, and/or barium exceed the regulatory threshold for hazardous waste at 11 of these properties and each of these occurrences correlate to a layer of ash, brick and/or glass.

Soil borings and test pits in right-of-way areas confirmed the presence of ash, brick and/or glass with SCO exceedances continuing west and north of the residential parcels (toward Centerway and the I86 sound barrier).

Groundwater Sampling Results

Groundwater samples were collected from four monitoring wells on the CPP High School property (OU3), two monitoring wells on the Memorial Stadium property (OU3), and one monitoring well in the road ROW at the eastern end of Corning Boulevard (OU2). No constituents of concern were found at levels above applicable groundwater standards. Water chemistry data from the public water supply well located on the Corning Fire Department property has been evaluated and determined to not contain any of the study-related contaminants above the public drinking water standards. Additional information regarding this well can be found in the annual water quality report that you receive from the City of Corning.

What does the presence of target material containing ash, brick and/or glass mean?

The presence of target material containing ash, brick, and/or glass indicates the need for that material to be fully investigated. The target material that contains ash, brick, and/or glass is the suspected source of contamination within the Study Area and Expansion Area.

Additional sampling will help determine the nature and extent (where it is and where it ends) of the target material. Exposure to the target materials (visible ash, brick, and glass) is possible by direct contact, and measures such as maintaining a grass or mulch cover over target material can help to prevent direct and repeated contact with target material. Some additional characterization as to the nature and extent of target material within the Study Area is currently ongoing. If you encounter target material containing ash, brick, and/or glass at your property that has not previously been reported, please contact the State for further assistance.

Will further evaluation of the Study Area and Expansion Area be done?

Some locations require further evaluation and investigation of the target material beneath the ground surface, including the OU4 Flood Control Areas and certain residential properties in OU1 and OU5. As previously noted, soil samples collected from 132 residential yards show the presence of metals such as arsenic, cadmium, and/or lead at concentrations above the SCOs for a residential setting. Additional evaluation in some yards is required to delineate the extent of the contamination. Once this additional evaluation is completed, Interim Remedial Measure (IRM) Work Plans to address potential exposures will be developed and shared with public officials and the local community.

What is an Interim Remedial Measure?

An IRM is a discrete set of planned actions that can be conducted without the extensive investigation and evaluation of a full Remedial Investigation and Feasibility Study. Sometimes, an IRM achieves the remedial goal for a site and no further action is required. Because of their versatility and the relative speed with which they are applied, IRMs accelerate clean-up (remedial) projects. The sooner sites are remediated, the sooner the public and the environment are protected. In addition, accelerated remedial projects often mean reduced remedial costs.

Why wasn't this addressed years ago?

The presence of material containing ash, brick and/or glass at CPP High School came to the attention of state agencies at the outset of excavation work during the spring of 2012, as reported in the media. At that time, the extent of ash, brick and/or glass was not known. Based on anecdotal reporting and subsequent research into historical documentation, additional characterization was warranted to determine whether any other parts of the Study Area were underlain by the same or similar material. NYSDEC asked Corning Incorporated to conduct an evaluation and Corning Incorporated entered into an order with NYSDEC to do so in 2014.

What is a “No Further Action” letter and when are they issued?

The classification of “No Further Action” is issued by NYSDEC when:

- The investigation and evaluation of a Class P site (site/property under investigation in the form of a site characterization) results in a determination that there is no contamination at the site and further action is not warranted.
- A site was identified as the location(s) where discrete waste was at one time present and subsequently removed by NYSDEC or others and, based on the resulting conditions, no need for additional work is apparent.

NYSDEC will issue an NFA to properties within the Study Area when it is determined that the property does not require further investigation or remediation.

Residential Property Remediation

Will there be any costs to me, the property owner?

No, Corning Incorporated is paying for the cost of investigation and remediation in the Study Area. Owners will need to pay for costs associated with normal maintenance of new property features provided by the project, such as paint or stain if wood features are replaced (e.g., wood fencing, wood steps, or lattice); and lawn maintenance, including lawn cutting, fertilizing, and watering after the first six to eight weeks following-installation. There may be other incidental costs that arise during the remedial project that will be the responsibility of the owners or tenants. For instance, Corning Incorporated will not dispose of certain household waste, such as used tires. Costs associated with removing such waste will be the responsibility of the property owner or tenant.

How will this impact my property values and taxes?

Impacts to property values and taxes are often a concern for property owners near a cleanup site. NYSDEC will be working closely with property owners to make certain that properties are protected from damage during construction activities. The state agencies overseeing the cleanup have no authority or control over property values or property taxes; however, site cleanup and restoration may actually increase property values. Following completion of the remediation project, NYSDEC will provide documentation of the cleanup done on each property. Specific questions about possible impacts on local taxes are a local issue and should be deferred to the City of Corning Finance Department.

What is the Value Assurance Program?

In May 2016, Corning Incorporated worked with an outside team of real estate experts to develop a Value Assurance Program (VAP) to protect the value of residential properties located in the Study Area. Based on the anticipated remediation schedule for residential properties located in the Study Area, Corning Incorporated extended the original VAP program until May 5, 2026. The VAP booklet is available at www.corningnyvap.com.

What if my property is damaged during remedial construction?

If remedial construction activities on your property cause unintended damages to your possessions or property features, they will be repaired, or the damaged items will be replaced by Corning Incorporated or the construction contractor. For example, if the construction work damages a portion of your grass that did not need to be remediated, the damaged area will be repaired. Pre-construction conditions on each property will be documented before the start of any construction activities. While the construction contractor will take care to avoid any damages, it is possible for equipment to cause damage to items such as individual fence pickets, landscape feature, etc. In these cases, the individual pieces will be replaced with readily available materials that best match the existing color and style.

Will you avoid my utility lines?

Corning Incorporated's construction contractor is required to arrange for mark out of public utility lines using Dig Safely New York. A private utility locator has also been engaged to further delineate public utilities as well as private utilities in the subsurface. Property owners should inform Corning Incorporated of any private underground utility lines.

When will remedial work start on my property?

Corning Incorporated and NYSDEC will meet with owners to review the NYSDEC-approved remediation plan prior to the start of remedial construction activities on the property. Corning Incorporated maintains a general project schedule but the sequence and timing of activities at previously-remediated properties, in addition to other variables such as weather and subcontractor scheduling, can impact the start date at subsequent properties. Any trees or large vegetation that require removal typically will be removed first, followed by the start of excavation. NYSDEC can provide an approximate start date as the start of work at your property approaches. Please remember that any estimated dates provided by Corning Incorporated reflect the information available at the time and are subject to change.

Can I stay in my house during the remediation?

Yes. Corning Incorporated and its contractors will provide safe ingress and egress for property owners' access to their homes during construction activities.

What is the preliminary excavation drawing?

After NYSDEC and NYSDOH have reviewed the soil sampling results, a preliminary excavation drawing will be developed by Corning Incorporated using the survey that was performed at each property, as part of the excavation and site restoration planning. This preliminary drawing is presented to the property owner along with the analytical results of the soil samples taken from the property. It shows the minimum depth of soil that must be removed from different areas of the property to address the surface soil contamination, and it indicates those property features that will be affected by the remediation. Corning Incorporated and the property owner will then discuss any questions or concerns the owner may have and discuss how the impacted property features will be restored.

What is the Excavation and Restoration Site Plan?

The Excavation and Restoration Site Plan is an engineering drawing that shows the excavation and restoration details for the property. Input provided by the owner during their review of the NYSDEC-approved design drawing will be considered by Corning Incorporated and NYSDEC, and the owner will be asked to review and approve the plan prior to the start of construction. Unless otherwise agreed, the Excavation and Restoration Site Plan will typically show how each property feature affected by the remediation will be replaced, in kind, in the same location on the property. The Excavation and Restoration Site Plan for each property, including all engineering specifications, will then be provided to the construction contractor to guide remedial construction.

If I have a property feature that does not meet a building code, what will happen when it is restored?

Corning Incorporated is required to construct all property features according to applicable building codes for the protection of property owners and tenants. If a property feature that is affected by remedial construction is found to be out of code, NYSDEC will discuss it with the owner and the restored property feature will be installed to meet the code requirements. Property owners should inform Corning Incorporated if they are aware of any property features that do not meet code requirements.

Can the remediation project impact drainage on my property?

Property owners should expect that the general elevations and grading of the property will be the same as they were prior to construction. As a general practice, the construction

contractor will grade soils and walkways to slope away from structures and foundations. Owners should inform Corning Incorporated of any issues or concerns with water and drainage on any part of the property when discussing the remedial design drawing. Drainage improvements typically are not possible as part of the remedial work.

What kind of soils will be used in place of the soils that are excavated and removed?

Corning Incorporated will replace excavated soils with clean soils that meet or exceed all required standards and that have similar physical properties to those removed. Native soil materials are tested for their general physical characteristics, and local backfill sources are selected that are consistent with the physical characteristics of the native soils. Backfill used in excavated areas exceeding six (6) inches in depth will be replaced with material similar to the native subsoil (referred to as “common fill”). The top six (6) inches will be backfilled with topsoil, except in areas of hardscape.

Will Corning Incorporated restore my lawn with sod or seed?

Corning Incorporated will restore the majority of grassed areas with sod, as installing sod tends to result in a full, usable lawn faster than seeding. However, it will still take a few months for the sod to fully root where it is placed. Corning Incorporated’s construction contractor will water newly sodded areas for an initial period of six to eight weeks after installation. Then care of the lawn will be passed on to the property owner. Small areas of yards may be seeded rather than sodded (e.g., to complete or repair lawns in the narrow areas alongside new driveways, patios, and sidewalks).

What is the Care and Maintenance Acknowledgment form?

Corning Incorporated asks the owner of each remediated property to complete and sign an agreement form to acknowledge that the owner has received the Excavation and Restoration Site Plan, and sets of instructions for caring for sod, asphalt (if relevant), plants, and trees (if relevant). A warranty period is provided for restored property features, but failure to follow the instructions provided by Corning Incorporated may void the warranty. For instance, it is the responsibility of the owner to periodically water new plants, trees and/or sod pursuant to care instructions, and perform other routine maintenance, such as fertilization. Failure to properly care for and maintain these features may void the warranty, meaning the affected items would not be replaced if they die or are damaged by activities not associated with the remediation.

Who is responsible for maintenance of the cover system?

Individual property owners will be responsible for day-to-day maintenance of the cover system (e.g. maintenance and mowing grassy areas and sealing driveways) prior-to and following remediation activities. However, following remediation activities, Corning Incorporated will repair an installed soil cover system (as needed) until vegetation is established (expected to take up to one year). If the vegetative cover (grass) is not established in a year, Corning Incorporated and NYSDEC will investigate the area to determine the reason the vegetative cover (grass) is not being established and determine the future course of action to ensure the vegetative cover becomes established.

How often will the cover system be monitored? Who is responsible for monitoring the cover system?

Following backfilling and restoration, Corning Incorporated will perform monthly inspections of the areas where the excavation activities were performed to (1) initially ensure the stability of the area and reestablishment of vegetation in backfilled areas and to

(2) confirm that no visual indicators of soil disturbance at depth occurred. Any changes in the soil cover will be noted and repaired as necessary. Slight changes in grade that result in ponding of precipitation (for a period of more than 24 hours) will be repaired if the ponding was not a pre-existing condition. Trees and shrubs that were removed and replaced will be inspected to ensure they become established (expected to take up to one year). Trees and shrubs that do not survive the first year after planting will be replaced. In addition, existing trees and shrubs adjacent to the remediation area that do not survive the first year as a result of the remediation activities will be replaced. These inspections will be conducted at each property until NYSDEC approves the property-specific Construction Completion Report.

Will all my plants be replaced?

Corning Incorporated and/or its contractor will visit your property to prepare an inventory that lists the types and numbers of all plants and trees. It is not always possible to correctly identify all seasonal species, so property owners should review the inventory closely and inform Corning Incorporated of any changes to the inventory. As part of the meeting to review NYSDEC-approved design drawings, Corning Incorporated and the property owner will discuss the plans for replacing plants and trees, as well as restoring any plant bed edging and flagstone or brick patios or walkways. Shrubs, perennials, and edible plants will be replaced with the same or similar varieties unless otherwise agreed. Seasonal bulbs and annual plants present at the time of the inventory or prior to excavation will not be replaced. Owners may choose to relocate annual plants prior to excavation or dig up and store bulbs if so desired. The landscaper will typically provide standard nursery stock plants that are readily available locally.

Will all my trees be replaced?

One new replacement tree will be provided for each tree removed during remediation unless the property owner chooses not to replace trees within their property. Replacement trees will be standard nursery stock trees, 2 to 3-inch caliper size, dependent upon species, regardless of the age or maturity of the tree being replaced. Not all varieties may be available. Invasive varieties of trees or plants will not be replaced in kind, but rather replaced with native species as recommended by the landscape contractor and discussed with, and agreed upon by the property owner.

Will my vegetable garden be replaced?

Vegetable gardens that require replacement will be replaced with an above ground garden per NYSDOH recommendation in the Healthy Gardening pamphlet ([Healthy Gardening: Tips for New and Experienced Gardeners](#)).

Can any of my plants and trees be salvaged if they are in an excavation zone?

Corning Incorporated understands that some plants and trees may have sentimental value to property owners. Owners should discuss any such plants or trees with Corning Incorporated as early as possible. In some cases, NYSDEC and NYSDOH may determine that it is possible to protect a plant or tree in its place. If Corning Incorporated agrees to attempt to protect a plant or tree in place and it is damaged or dies within the first year after remedial construction despite proper care by the property owner, Corning Incorporated may agree to replace the item. Corning Incorporated will not dig out a plant or tree, care for it, then replant it after remedial construction, but owners may attempt to do so.

Can I choose different kinds of plants and trees than I had before?

Owners may request different types of replacement plants or trees for the species removed during excavation, if the costs are equivalent to the costs of a one-to-one replacement of the plants and trees removed. Any such requests should be shared with Corning Incorporated as early as possible, and the landscaping subcontractor will discuss the options with the property owner. The landscaping subcontractor is responsible for establishing the costs of replacement plants and trees using their standard prices or according to any specific contract terms.

Will my other affected landscaping features be replaced?

Corning Incorporated will replace landscaping features in the same locations and with the same or similar materials unless otherwise noted. This includes the locations and dimensions of plant beds, edging for plant beds; and flagstone patios, brick patios, and walkways. Plant beds will be finished with amended topsoil covered by mulch (typically matching the color of the original mulch).

Will my fence be left in place or replaced?

Fences in excavation zones will typically be removed and replaced with the same material (i.e., chain-link, wood, or vinyl) in a similar style and height using standard materials and styles offered by the selected fencing subcontractor, in compliance with applicable local code requirements. Corning Incorporated may not be able to match the exact style of fence that was removed but will coordinate with the property owner in these cases. An owner may choose not to have a fence replaced. If the existing fence required a variance for its initial installation, the property owner may need to request a new variance.

Will my porch/deck/steps/ramp be removed and replaced?

Free-standing porches, decks, outdoor staircases, and porch/deck ramps that are not attached to a house may be removed if excavation required by Corning Incorporated cannot be performed without moving them. Front and rear porches directly attached to residential structures are unlikely to require removal to accommodate remediation. In some cases, these features can be moved temporarily, and then reinstalled. If it is necessary for Corning Incorporated to replace a wooden feature like a porch, deck, staircase, or ramp, Corning Incorporated will not be responsible for painting or staining the new wood, regardless of the age or condition of the original feature. While staining or painting new wooden features may promote their long-term durability, this is considered an optional cosmetic step to be decided by the property owner.

Will my shed be replaced? Will my children's playset be replaced?

If Corning Incorporated requires excavation below a shed or playset, the construction contractor will evaluate whether the structure can be moved temporarily and set back in place, or if it needs to be replaced. If the structure is in safe, working condition but cannot be salvaged, Corning Incorporated will replace the shed or playset with a new shed or playset in a comparable size and style from vendors selected by the construction contractor. Sheds and playsets will be replaced in compliance with current code requirements, including applicable setbacks.

Will my pool be replaced?

Aboveground pools that are within excavation zones or that must be moved to accommodate remedial construction will be replaced. If a pool is replaced, it will be

replaced with a new pool of comparable size and features. Pools will be installed to current code, which may require changes to the pool filter and/or electrical connections. Excavation and restoration plans for areas near and surrounding in-ground pools will be presented on the Excavation and Restoration Site Plan and discussed with the property owner prior to construction.

Does the property survey that was prepared for remediation replace or supplement other recent or historical surveys of my property?

Corning Incorporated contracts a licensed surveyor to prepare the property survey of each property for the purposes of remedial design and construction. The survey, including property boundaries, is shown on, and provides the basis for, the Excavation and Restoration Site Plan, but it is not intended to replace or supplement historical or recent property surveys, with respect to determining property boundaries or features for purposes not associated with Corning Incorporated's remediation project. Corning Incorporated may request a copy of the owner's property survey to help resolve ownership and restoration of property features at the edges of properties affected during remedial construction.

Will the property owner get a completion letter?

A No Further Action letter, or NFA letter, will be sent from NYSDEC to a property owner of a remediated property after the remediation is complete or, in some cases, after an investigation of the soils on the property reveals that remediation is not necessary. An NFA letter indicates that there are no restrictions on the use of the property, and no further sampling, remedial actions, or restoration are necessary with respect to the contamination that resulted from the operations of Corning Incorporated. Copies of NFA letters will be provided to the Town of Corning and to Steuben County. In addition to NFA letters, owners of remediated properties will also receive a figure that depicts the work that was completed on their property and if any material remains below a soil cover.

Other Properties

How will other properties, including school property, used for access or to support the remediation be restored?

Access points and the processing areas will be restored to its condition existing immediately prior to entry by Corning Incorporated's contractors and may include milling, re-paving and re-striping of existing parking areas used by Corning Incorporated. Vegetated surfaces will be restored with clean topsoil, sod or plantings as required to restore an area to its condition existing immediately prior to entry by Corning Incorporated's contractors.

How will traffic control be addressed?

Corning Incorporated's contractors will provide adequate traffic controls including flagmen and traffic control devices such as cones, signs and barriers to ensure safe access to and from the project. Corning Incorporated is coordinating the work with individual property owners to minimize any disruptions to a property owner's routine activities. Truck traffic patterns have been designed to minimize congestion on local roads and maintain safety in the community.

What remedial work has been conducted to date? What is the schedule for completing the remediation?

To date, sampling has been conducted at 321 out of 326 properties located in OU-1, OU-2 and OU-5. Based on sampling results that showed no threat to public health or the environment, NYSDEC issued “No Further Action” letters for 125 of those properties leaving 196 to either be remediated, require additional investigation, that are being considered for no further action or which have not provided access.

Remediation was completed on three properties in 2018 and 21 properties in 2019 to protect public health and the environment. To date, NYSDEC has reviewed remedial designs for 70 properties and approved remedial designs for 59 properties during the 2019 construction season. Accounting for the 21 properties completed in 2019, there are 38 properties with NYSDEC approved remedial designs in line for remedial construction activities for 2020.

An additional 40 properties are anticipated to be remediated in 2020 pending remedial design approval by NYSDEC and property owner consent. Corning Incorporated will submit comprehensive design packages and a detailed schedule for NYSDEC review prior to the beginning of each construction season. Meetings with owners of properties planned for remediation in 2020 have begun to ensure construction activities can commence as anticipated in April 2020 (weather permitting). The remedial process in OU1, OU2, and OU5 is expected to be completed in approximately five years.

What is the purpose of pre-design investigation (PDI) sampling?

The work done under the Site Characterization Work Plan and its Addendums confirmed the presence of a layer of ash, brick, and glass in various portions of the Study Area, and the need to investigate more than 300 residential properties. Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based on the investigation, the primary constituents of concern are lead, arsenic, cadmium and SVOCs. Based on sampling results, DEC issued “No Further Action” letters for 125 of those properties.

The residential portion of the Study Area includes three “operable units” (OU1, OU2, and OU5). Characterization activities are being completed pursuant to an approved Pre-Design Investigation (PDI) Work Plan and Addenda that will assist NYSDEC in defining the extent of soil contamination present and defining excavation areas on properties that require remediation. This investigation approach may result in several rounds of samples being collected on individual properties to clearly delineate excavation limits. The goal is for Corning Incorporated to provide data to property owners within 30 days of data validation. Every effort is made to expedite the receipt of data by property owners.

What is the remedial design process?

As part of the remedial design process, individual property owners are contacted and provided with NYSDEC-approved remedial design drawings. Staff from NYSDEC and Corning Incorporated will meet with residents to review these plans prior to the excavation and other cleanup work. Property surveys will also be completed to document property specific inventories of trees, sheds, fencing, decking or other unique property features. Property owners are encouraged to offer input on remedial design drawings, particularly with respect to restoration of their property. Once remedial design drawings are finalized and approved by NYSDEC and the property owner, construction activities can begin.

How does NYSDEC know the remediation is complete?

The remedial project is determined complete based on meeting goals described in the Decision Document and the remedial design documents. The objective of this cleanup is to remove a layer of ash, brick and/or glass and/or soil that exceeds the residential SCOs within the top two feet.

Will NYSDEC provide oversight?

During remediation a construction inspector will be onsite as a representative of the NYSDEC. The construction inspector will oversee implementation of the health and safety plan, review planned activities, and respond to community questions through a dedicated telephone number. Additional dedicated personnel may likely be in place during specific work activities to provide noise or vibration monitoring, air monitoring, and independent oversight inspections.

How will the yards of residential properties be restored?

All areas disturbed during soil removal will be restored, including lawns, sidewalks, driveways, plantings, garden beds, sheds, decks, and pools. Specifically, residential yards will be restored with a minimum of four to six inches of vegetative support soil (topsoil or amended soil), graded to the natural surrounding topographic contours or pre-determined elevations. Plantings and sod will be replaced in kind, and the yard will be restored to a condition similar to existing conditions to the extent feasible. If an excavation contains a property feature (e.g., mulch flower bed, gravel bed or other pervious surface, it will be replaced in kind.

Public Outreach

How will the community be kept informed?

Information about the cleanup is provided through NYSDEC's and Corning Incorporated's project-specific websites. Cleanup progress, work locations, traffic changes, and anticipated activities may be posted to keep an open dialogue with the community. A public availability session will be held prior to the start of construction, and periodic newsletters will be sent to the local residents to keep them informed.

Health Related Questions

Where will the air monitors be placed?

A set of upwind and downwind air monitoring stations are required during all excavation and backfilling activities to ensure no dust or particulates leave the work station during cleanup activities. These stations monitor for dust particulates using real-time monitoring equipment. Results are compared to the airborne particulate impact level. The equipment is equipped with an audible alarm to indicate exceedance of the action level. In addition, there is a requirement for no visible dust during all work activities (i.e. no visible dust emissions will be allowed outside the work zone). Monitors are set close to the work zone to ensure that should any dust be generated, it will be "seen" by the monitors right away, and corrective measures (such as wetting down the area) can be taken immediately.

Will the buildings be able to open windows during the active construction periods?

Out of an abundance of caution, it is requested that windows remain closed during active work, but window and central air conditioning units can operate normally.

How are dust and particulates being controlled?

NYSDEC and NYSDOH have approved a Community Air Monitoring Plan (CAMP) that requires continuous air monitoring during all excavation and backfilling activities to ensure no additional dust or particulates are released to adjacent properties or the environment during the cleanup activities. The CAMP requires no visual dust moving outside the work area, and wetting down dry materials as necessary. In addition, due to the close proximity of athletic playing fields and schools, more stringent CAMP requirements will be necessary. The contaminants at this site do not volatilize or evaporate to mix into the air. They could become airborne if dust is generated from an area of impacted soil, and arsenic, cadmium, lead or SVOCs are attached to those soil dust particles that get kicked up into the air. The air monitoring equipment is sensitive and will detect very low levels of dust particles in the air, typically before you can see them with your eyes. If dust is observed, either by the personnel at the site, or if it is detected above control levels with the air monitoring equipment, the area will be wetted down. Additional controls require trucks to be covered to properly secure all excavated material during transport for disposal off-site at a permitted facility.

How can I be exposed to contaminants in soil or target material (ash, brick, and/or glass)?

Contact with metals and other contaminants of concern is possible in surface soils (within top 2 inches of ground surface), particularly in areas not covered with grass, mulch or pavement, especially in areas with visible ash, brick, and glass. Contact is also possible in sub-surface soil (beneath ground surface) if you dig into the ground. People can be exposed to metals or other contaminants of concern in soil if they get soil on their hands or vegetables and swallow or ingest the soil through hand-to-mouth or eating activities.

Measures will be put in place prior to and after remediation to prevent contact with contamination.

What are soil cleanup objectives or “SCOs”?

SCOs are contaminant-specific soil concentrations that are protective of public health and the environment for specified uses of a property (e.g., residential, commercial). SCOs are set at a soil level at which health effects are unlikely to occur and are used, along with other considerations, to guide decisions about the need to reduce exposure to environmental contaminants. The SCOs are contained in NYSDEC’s Environmental Remediation Program regulations (see <http://www.dec.ny.gov/chemical/34189.html>).

How are the soil sampling results for my property evaluated?

The soil sampling results for the residential properties are evaluated by comparing them to the residential SCOs. The residential SCOs are set at a soil level at which health effects are unlikely to occur and assume exposure occurs through activities that typically occur on residential properties (e.g., working and playing in the yard, gardening). The SCOs are used as a tool, along with other considerations, to guide decisions about the need to reduce exposure to environmental contaminants.

The residential SCOs for the primary site-related contaminants are 16 parts per million (ppm) for arsenic, 2.5 ppm for cadmium, and 400 ppm for lead. The residential SCOs for the

primary PAHs are 0.41 ppm for 2-methylnaphthalene; 1 ppm for benz(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; and chrysene; 0.33 ppm for dibenz(a,h)anthracene and 0.5 ppm for indeno(1,2,3-cd)pyrene.

What does it mean if arsenic, cadmium, lead and/or SVOCs were found on my property above the SCOs?

An SCO is not a "bright line" between soil concentrations that will result in health effects and those that will not. Moreover, exceedance of an SCO at your property does not represent an immediate health hazard but indicates a need to evaluate measures to reduce the contaminant levels. The degree of public health concern when an SCO is exceeded depends on several factors, including (among others) the extent to which the SCO is exceeded, the potential for human exposure, other sources of exposure to the chemical, and the strength and quality of the available toxicological information on the chemical.

Will my children get sick if they play in my yard? What measures should I take to protect them?

We do not expect there to be any immediate health effects from exposure to arsenic, cadmium, lead, SVOCs or other contaminants in the soil through typical use of the yards. However, you can reduce the chances for exposure to these contaminants by taking reasonable and practical steps to minimize direct and repeated contact with bare soils (particularly by young children).

1. Maintenance of a grass or mulch cover will help prevent direct contact with the soil.
2. Unnecessary digging in the dirt should be avoided, and children and adults should wash hands after outdoor activities.
3. The use of doormats and periodic damp mopping of floors can help reduce exposure to outdoor soil that might be tracked indoors.

It's important to note that all soils contain metals and microorganisms, and therefore it is always a good idea to minimize getting soil into the body whether it is contaminated or not.

Can I plant a garden? Should I eat vegetables grown in my garden?

Until properties are cleaned up or found not to need remedial work, eating vegetables from your garden could increase your exposure to arsenic, cadmium, lead, SVOCs or other contaminants if they are present at elevated levels in the soil of your garden. Contaminant levels in homegrown vegetables depend on many factors such as the specific kind of vegetable, characteristics of the soil, the level of contamination in the soil, and others. Additionally, soil can stick to vegetables and then be taken into the body when the vegetables are eaten. If you decide to grow and eat vegetables, NYSDOH recommends best practices that can be followed to reduce the potential for exposure anytime people are concerned that soil may contain man-made or naturally occurring contaminants. To help reduce any exposures you might have from vegetable gardening:

- Grow vegetables in raised beds with clean soil (at least 10 inches deep). Use untreated wood to make the beds. Pressure-treated wood and railroad ties contain added chemicals.
- Wear gloves when working in the garden and avoid bringing soil into the house.
- Brush off your clothes and remove shoes and gloves before entering your home.
- Wash with soap and water after gardening or any time before you eat.

Additional information about healthy gardening may be found at:
<http://www.health.ny.gov/publications/1301/>.

What health effects can be caused by exposure to arsenic, cadmium, or lead?

All chemicals can cause health effects. The risk for adverse health effects from exposure to any chemical depends on the chemical's toxicity, the amount of the chemical to which a person is exposed, and how long and how often the exposure occurs. Below is some General information about the kinds of health effects that are associated with arsenic, cadmium, and lead.

Arsenic is classified as a human carcinogen based on evidence from a large number of scientific studies that show an increased risk for skin, lung, and bladder cancer among people who have been exposed to high levels of arsenic in drinking water. Exposure to high levels of arsenic also can cause non-cancer health effects such as stomach irritation, and effects on the nervous system, heart, blood vessels, and skin.

There is some evidence that cadmium causes cancer in rats exposed to high levels in their drinking water over their lifetime. Some people exposed to large amounts of cadmium had kidney and bone damage. Exposure to high levels of cadmium damages the kidneys, blood, liver, heart, and the immune and nervous systems of laboratory animals. High exposure also damages the unborn offspring of laboratory animals exposed during pregnancy.

Ingestion of lead can increase blood lead levels. Numerous scientific studies show that elevated blood lead levels in children (before or after birth) cause or are associated with adverse effects on the developing nervous system. These include reductions in several measures of cognitive ability, which is an indicator of a child's ability to learn.

Should my children or I be tested for arsenic, cadmium, lead or SVOCs?

These metals are common in the environment and it is not unusual to find some arsenic, cadmium, or lead in a person's body (e.g., in a blood or urine sample). However, while testing can measure the amount of these metals in a person's body, the test cannot identify where the metal came from. If you are interested in being tested for these chemicals, you should consult your health care professional.

New York State requires health care providers to test all children for lead with a blood lead test at age 1 year and again at age 2 years. At every well-child visit up to age six, health care providers must ask parents about any contact their child might have had with lead. If there's been a chance of contact, providers are required to test for lead again. Parents can ask their child's doctor or nurse if their child should get a lead test, and what the lead test results mean.

What other chemicals might be present?

During the Study Area characterization, every sample was analyzed for arsenic, cadmium, and lead. In addition, many of the samples were analyzed for TCLP metals, total metals, VOCs, SVOCs and PCBs. Lead, cadmium and barium were the only metals for which the target material (in certain portions of the Study Area) met the criteria for hazardous waste designation based on TCLP testing results. Other metals that have been detected at concentrations above SCOS in the Study Area include chromium, copper and mercury. Elevated detections of these other metals are less frequent but when present are also typically associated with the presence of ash, brick and/or glass. VOCs were detected at levels above residential SCOs in soils with ash, brick, and/or glass underneath a limited area of the CPP High School athletic fields and the extent of this area has been delineated. SVOCs were sometimes detected at levels above residential SCOs, and the elevated levels typically appear to be associated with ash. Other potential source(s) of SVOCs are being evaluated. There were no exceedances of the residential SCOs for PCBs.

Can I take my children to Houghton Park to play?

Yes. Based on the results of ten surface soil samples collected at the park, arsenic, cadmium and lead were detected at levels below the SCOs for residential use. Four soil borings and two test pits in this park did not identify any layers of ash, brick and/or glass. Some trace pieces of glass were encountered in test pits at the west end of the park, but associated soil samples did not identify levels of arsenic, cadmium, lead or other contaminants at levels above the residential SCOs. Much of this public park is covered by grass and materials such as mulch or wood chips in the playground portion. Both grass and mulch/wood chips provide a cover that prevents contact with the soils beneath.

Other Questions

Are there examples of similar projects which show what remediation and restoration projects look like?

Case Study: Community Soil Remediation Project

- Location: Middleport, Niagara County, New York
- Sponsors: NYSDEC & NYSDOH
- Project Highlights:
 - Soils were contaminated with arsenic by air deposition from a former agrochemical manufacturer.
 - DEC remediated and restored nearly 30 properties in a residential neighborhood and portions of grounds at a neighboring High School and Middle School.
 - Worked closely with residents to minimize disturbances, maintain access to houses, and restore property features with owner input.
 - Implemented strict safety protocols to minimize construction traffic, potential exposure to dust, and monitored vibration during construction activities.
 - Restored properties with clean backfill and topsoil. Restoration included new sidewalks, driveways, pools, sheds, trees, landscaping, etc. for all areas that could not be protected in-place during excavation.
 - Achieved No Further Action (NFA) status for every property.

How does a Site Management Plan work?

- Who Writes the Plan: Corning Incorporated
- Who Approves the Plan: NYSDEC & NYSDOH
- Plan Highlights:
 - Identify all use restrictions (for example, Memorial Stadium is restricted residential) and engineering controls (for example, soil cover).
 - Include provisions to maintain access agreements where necessary to inspect and/or perform excavation work in areas with soil covers. Access agreements for site management with property owners are expected to be similar in form to the ones used for investigation and/or remedial work.
 - Include a Soils Management Plan, outlining requirements if the property owner intended to disturb remaining layers of ash, brick and/or glass or soils above the soil cleanup objectives. A very generic excavation work plan is included as Appendix [X] in the Site Management Plan template (see link below).
 - Require periodic inspections to ensure the remedy remains in place and continues to be effective.
 - Outline steps necessary to track property ownership changes to ensure new owners get notifications and reminders.

- Describe the system of notifications and reminders to property owners to keep stakeholders informed of planned work which might impact the soil covers. An example would be an annual reminder letter from Corning Incorporated to the City of Corning requesting to be informed of any building permits or other approvals they grant for properties within the Study Area where a layer of ash, brick and/or glass or soils above the soil cleanup objectives remain after the remedy and may be disturbed.
- Provide contact information for DEC, DOH and Corning Incorporated.

The following link includes a template for a Site Management Plan which would be used as a starting point to develop a specific plan for the Study Area:

http://www.dec.ny.gov/docs/remediation_hudson_pdf/smptemplate.pdf

An area-wide site management plan will apply to the Study Area. Property owners with impacted soils remaining below a site cover system will receive an individual figure depicting areas on their property with known remaining impacted soils and refer to the Study Area site management plan. Contact information will be provided for questions and assistance in following the plan.

For More Information

Where can I find more information?

Project documents are available at the following locations to help the public stay informed:

Southeast Steuben County Library

300 Nasser Civic Center Plaza
Suite 101
Corning, NY 14830
607-936-3713

NYSDEC, Region 8 Office Headquarters

6274 East Avon-Lima Rd.
Avon, NY 14414
Call ahead for an appointment
585-226-5324

The NYSDEC maintains a web page with additional information:

<https://www.dec.ny.gov/chemical/97180.html>

NYSDEC and NYSDOH staff are always available to provide updates, or answer any questions community members or faculty have.

For project investigation-related questions for the Study Area, please contact the NYSDEC Project Manager:

Kelly Cloyd, PhD.

NYSDEC
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414
(585) 226-5351
Kelly.cloyd@dec.ny.gov

For project remediation/construction-related questions for the Study Area, please contact the NYSDEC Construction Inspector:

Scott Williams
NYSDEC
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414
(585) 226-5448
Scott.williams@dec.ny.gov

For project related health questions, please contact NYSDOH Project Manager:

Melissa Doroski, MPH
NYSDOH
Bureau of Environmental Exposure Investigation
Empire State Plaza - Corning Tower Room #1787
Albany, NY 12237
(518) 402-7860
Melissa.Doroski@health.ny.gov

How do I stay informed?

NYSDEC and NYSDOH will continue to keep the public informed as this work progresses and as development of cleanup plans are finalized.

Using the [DEC info Locator \(https://gisservices.dec.ny.gov/gis/dil/\)](https://gisservices.dec.ny.gov/gis/dil/), an interactive map that lets you access DEC documents and public data about the environmental quality of specific sites in New York State.

Sign up for the contaminated sites county email listserv to receive site-related information and announcements for all contaminated sites in the county. Sign up for the listserv is available at the following web page: <http://www.dec.ny.gov/chemical/61092.html>.