

DECISION DOCUMENT

Study Area
Operable Units (OU) 1, 2 and 5
Corning, Steuben County, New York
Site ID No. 851046
July 2017



**Department of
Environmental
Conservation**

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Study Area
Operable Units (OU) 1, 2 and 5
Corning, Steuben County, New York
Site ID No. 851046
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Statement of Purpose and Basis

This document presents the remedy for the Study Area, site number 851046. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Study Area and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The remedy will be implemented in accordance with a Department approved schedule and order on consent established to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. The schedule shall provide for remedy implementation to commence within 60 days of the Department's approval (or other time frame as the Department agrees upon in writing) of the remedial design for any property to be completed in the first year with a goal of completing as many properties in the first year as practicable.

The remedy will consist of excavation and removal of target fill to conform to Commissioner Policy CP-51 Section G and excavation and removal of soil within the top two feet to meet the residential SCO remedial goals, with some flexibility to be employed by the Department and NYSDOH on a case-specific basis. This flexibility may allow for limited confirmation samples to exceed the SCO levels, based on concentration, the location and/or depth of the sample exceeding the SCO and the implementability of the removal and exposure potential, while still achieving sufficient removal to assure a protective cleanup for which a no further action determination can be issued, with site management where appropriate.

Case-specific consideration will also be applied to accommodate property owner concerns related to preservation of their property with respect to specific features such as mature trees, sheds, decorative plantings, or other features of significance to the property owner, where possible.

The elements of the selected remedy for OU1, OU2 and OU5 are:

1. Remedial Design - A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. The program will include, but may not be limited to the following elements:
 - a pre-design investigation will be conducted to determine the limits of excavation to meet residential SCOs and any impacts; and
 - development of general and property specific sampling and excavation plans. These plans will include pre-excavation soil sampling and analysis where needed to better define the excavation limits required to achieve the remedial goals for each property. The property specific plans will detail the limits of excavation on each property, and indicate any limitations with regard to property specific features (e.g., trees) that are agreed to with the property owner. Development of the property specific plans will include an inspection of each property. Properties where basements are identified as having dirt floors will be evaluated for consistency with the remedy as appropriate. The plans will also indicate the removal and replacement of any property specific features (e.g., sheds, fences). Each property owner will be consulted during the development of their property specific plan; and
 - development of a health and safety plan that will include the necessary details to protect residents, workers and the general public during implementation of the final remedy; and
 - development of a tree preservation plan; and
 - development of a public infrastructure protection and restoration plan. The plan will include a survey of publicly owned infrastructure both before and after the remediation. It will include pre-construction surveys as needed. The plan will include measures for mitigating or repairing any damage that may be caused to local infrastructure by the remedial action; and
 - evaluation of approaches to minimize the disturbance and disruptions to the community during construction so that the character of the neighborhoods and quality of life can be maintained, to the extent feasible; and
 - Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31.
2. Excavation and Off-Site Disposal - Contaminated soils in the top two feet which exceed residential soil cleanup objectives (as defined by 6 NYCRR Part 375-6.8) and target fill in accordance with Commissioner Policy CP-51 Section G will both be excavated and disposed at a facility permitted to accept the material. The Department may require deeper excavation on a property only if that excavation: is only marginally deeper than two feet; is only in a limited area of that property; and will result in a cleanup for which a no further action determination (without site management) could then be issued for that property. An evaluation of all samples from an individual property will be performed, recognizing the heterogeneity of contamination and the uncertainty of sampling and analysis. The Department, in consultation with NYSDOH, will exercise limited discretion when determining that remediation is complete and has generally achieved the remedial goals where some discrete samples may not achieve the established cleanup levels. This flexibility will be tied to exposure potential. Also, the Department, in consultation with the NYSDOH, may determine that remediation is complete for properties when (1) there are a large number of confirmatory samples; (2) the vast majority of confirmation samples indicate that the soil cleanup levels for the site have been achieved; and (3) those that do not achieve the SCO exceed it only by a small amount. This determination will also accommodate property owner concerns related to preservation of their property with respect to specific features such as mature trees, sheds, decorative plantings, or other features of significance to the property owner where possible.

3. Restoration of Excavated Areas - All areas where soil is excavated will be restored in accordance with the restoration requirements set forth in the approved remedial design, including:
 - a. backfilling with clean fill soil and top soil as appropriate which meets the requirements of 6NYCRR 375-6.8 to establish the grades approved in the remedial design. The upper six inches of the soil will be of sufficient quality to maintain a vegetation layer. Lawns will be restored by seeding or placement of sod. Trees and shrubs will be replaced at the discretion of the property owner and if any areas are determined to be wildlife habitat they will be appropriately restored to allow this use; and
 - b. replacing landscaping features such as sidewalks, driveways, and other property-specific features (e.g., pools, sheds, fences) in kind (and consistent with local building codes) where removal is required to implement the remedy. The need for removal of any property-specific features will be determined during the design of the remediation phase in consultation with the affected property owners; and
 - c. restoring publicly owned property and infrastructure if it is shown to have been damaged by remedial activities. Any affected property shall be replaced in accordance with local building codes and standard industry practices.
4. Cover System - A cover will be required to allow for residential use of the property. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the development or a soil cover in areas where soils which exceed the applicable soil cleanup objectives (SCOs) or target fill will remain below two feet. Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for residential use. Soil covers which are installed will be placed over a demarcation layer, however existing soils which meet the applicable soil cleanup objectives (SCOs) and have no target fill do not need to have a demarcation layer installed. Any fill material brought to the property will meet the requirements for the identified land use as set forth in 6 NYCRR Part 375-6.7(d).
5. Site Management - A Site Management Plan (SMP) is required, which includes, but may not be limited to, the following:
 - a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the area of concern and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: requires Corning Incorporated to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3). Institutional controls also include any voluntary agreements between Corning Incorporated and respective property owners for access and any other pertinent provisions to enable the installation and maintenance of cover systems, management of remaining contamination, excavation, inspections, sampling, and/or any other requisite activities.

Engineering Controls: The soil cover discussed in Paragraph 4 above.

This SMP will include, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations, including a provision to allow a homeowner to dispose of inconsequential amounts of ash, brick and glass in household garbage; and
- a provision for further investigation to refine the nature and extent of contamination and remediation, if necessary, in areas where access has not been previously granted; and
- a provision for further investigation and remediation, if necessary, on properties where future excavations occur at depths greater than that remediated under the selected remedy or where unexpected target fill is encountered regardless of depth; and
- a provision for the management and inspection of the identified engineering controls, including within right-of-way areas (while usage of these areas is generally controlled by their right-of-way status, Corning Incorporated has committed to address potential exposures related to required maintenance or repairs to piping, culverts, *etc.* and the presence of remaining contamination including excavation, management and disposal in accordance with the intended use of the right-of-way area); and
- a provision for maintaining access control and Department notifications; and
- a provision for tracking property ownership changes to allow for continued communication with owners, including annual notification by Corning Incorporated to new property owners of Corning Incorporated's offer to implement the remedy for new property owners for a period of two years following the change in ownership. This provision to notify new property owners will run for a period of fifteen years after the completion of the work on all properties where access was provided to Corning Incorporated for investigation and/or remediation after which the Department will evaluate additional measures on unaddressed residential properties which may be needed to be protective of human health; and
- a provision for annual notification by Corning Incorporated to property owners of Corning Incorporated's offer to implement the remedy for property owners who chose to decline remedy implementation and/or sampling on their property for a period of five years after the completion of the work on all properties where access was provided to Corning Incorporated for investigation and/or remediation; and
- a provision for an annual reminder from Corning Incorporated to property owners with post-remedy remaining soil contamination of the presence of such remaining contamination, and of Corning Incorporated's commitment to handle (excavate, manage and dispose) remaining contaminated soils, as necessary and in accordance with the intended use of the property; and
- a provision for Corning Incorporated to publish a map depicting the status (remediated, awaiting remediation, unaddressed due to lack of access provided to Corning Incorporated) of properties located in the area addressed by this Decision Document annually to the Department, the NYSDOH, the City and Town of Corning and Steuben County; and

- a provision for an annual reminder from Corning Incorporated to the City and Town of Corning Code Enforcement Offices and Departments of Planning and Economic Development to timely inform Corning Incorporated of any building permits or other approvals they grant for properties within the area addressed by this Decision Document where contamination remains post remedy; and
 - a provision for Corning Incorporated to send annual reminders to the City of Corning, Town of Corning, and/or Steuben County to timely inform Corning Incorporated of any City or County plans to conduct intrusive maintenance work within the area addressed by this Decision Document (*e.g.*, soil disturbance work); and
 - provisions for conducting periodic reviews and certifying the institutional and/or engineering controls.
- b. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of groundwater to assess the performance and effectiveness of the remedy; and
 - a schedule of monitoring and frequency of submittals to the Department; and
 - an annual visual inspection of properties to ensure that controls remain in place and effective.
6. An Interim Site Management Plan (ISMP) is required during pre-design, design and remedial activities that is consistent with Paragraph 5 (above) for properties located in the area addressed by this Decision Document including rights of way and utility corridors. The ISMP is intended to address all soil management issues until the remedy is fully implemented and will terminate once all properties where access was granted are remediated and a Department approved SMP is in place.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

7/10/17

Date



Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Study Area
Operable Units (OU) 1, 2 and 5
Corning, Steuben County, New York
Site ID No. 851046
June 2017

Summary and Purpose

The disposal of contaminants at the site has resulted in threats to public health and the environment that will be addressed by the remedy selected by this Decision Document (PDD). This Decision Document presents the remedy identified by the Department of Environmental Conservation (Department), in consultation with the Department of Health (NYSDOH), for the Corning Study Area (the Site). This decision is based on the investigation completed by the Department and Corning Incorporated pursuant to the June 2014, Order on Consent for the Site.

Citizen Participation

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

NYSDEC – Region 8 Office
6274 East Avon- Lima Rd.
Avon, NY 14414
M-F: 8:45am – 4:30pm
Contact: Linda Vera for an appointment
(585) 226 - 5324

Southeast Steuben County Library
300 Nasser Civic Center Plaza
Suite 101
Corning, NY 14830
phone: (607) 936-3713

In addition, the Department's project-specific website contains relevant information on this site, including many of the reports located in the repositories:
<http://www.dec.ny.gov/chemical/97180.html>

Receive site-related Citizen Participation information by Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

Description of the Site

The Study Area consists of approximately 201 acres, and it has been separated into five Operable Units (OUs). The Site was initially defined in the Order on Consent (Index No. B8-0835-14-07) with Corning Incorporated as the area bounded by Pyrex Street on the west, E. Pulteney Street on the north, Post Creek on the east, and the Chemung River on the south. The area has been expanded and is now defined as OU1, OU2, OU3, OU4 and OU5, as described below (collectively, the "Study Area"). During the 2012 demolition of the former Kent Phillips School and improvements to the Corning-Painted Post High School (CPPHS), workers encountered fill containing ash, brick, or glass waste in layers which exceeded one inch ("target fill") during excavations. The Department determined that the presence of the target fill material and the contaminant levels warranted additional investigation at the school property and at nearby properties within the Study Area. The Department asked Corning Incorporated to begin an investigation to further characterize the nature and extent of target fill within the study area. Subsequently, investigations were undertaken by Corning Incorporated and the Department, and fill containing ash, brick, or glass was found in other locations in the Study Area. Target fill has been identified that has concentrations of arsenic, cadmium, and lead exceeding restricted residential and/or commercial SCOs and may test as characteristic hazardous waste. The Operable Units are defined as follows:

- **OU1 - Residential Area:** The larger residential area including 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.
- **OU2 – Residential Area at the Eastern End of Corning Boulevard.**
- **OU3 - School/Community Use Areas:** Properties owned by the Corning-Painted Post School District, Corning Christian Academy, and the City of Corning (Memorial Stadium). Remediation of this area will not be addressed within this PDD.
- **OU4 - Flood Control Areas:** The southern and eastern most portions of the Study Area including flood control structures, levies, and adjacent portions of the Chemung River and Post Creek. Remediation of this area will not be addressed within this PDD.
- **OU5 - Off-Site Expansion Area:** The residential areas immediately to the north and west of the boundaries of OU1. The Expansion Area is further bounded by I-86 to the north,

Centerway (NYS Route 414) to the west, and the Guthrie Medical Center property to the South.

Operable Units OU1, OU2 and OU5 are the subject of this document. A Decision Document(s) will be issued separately for OU3 and OU4.

Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

Site Characterization Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified within the Study Area are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. The contaminants of concern identified at this site are a number of metals including lead, arsenic and cadmium, and semi-volatile organic compounds. The contaminant(s) of concern exceed the applicable SCGs for soil.

Nature and Extent of Contamination

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based upon investigations conducted to date, the primary contaminants of concern are lead, arsenic, cadmium and semi-volatile organic compounds.

The Site Characterization confirmed the disposal of significant quantities of target fill in various portions of the Study Area, including more than 100 residential properties.

Analytical results exceeded Toxicity Characteristic Leaching Procedure (TCLP) regulatory levels for lead in 59 of 881 samples (at concentrations up to 283 parts per million [ppm]), for cadmium in 7 of 881 samples (at concentrations up to 17.2 ppm) and barium in 2 of 881 samples (at concentrations up to 105 ppm) in OU1, OU2 and OU5.

Total concentrations of several metals and semi-volatile organic compounds (SVOCs) exceed the residential use soil cleanup objectives (SCOs). Arsenic was detected above the SCOs in 455 of 4,585 samples at concentrations up to 1,280 ppm, barium was detected above SCOs in 72 of 3,776 samples at concentrations up to 35,600 ppm, cadmium was detected above SCOs in 210 of 4,585 samples at concentrations up to 21,000 ppm, chromium was detected above SCOs in 44 of 3,776 samples at concentrations up to 556 ppm, copper was detected above SCOs in 10 of 3,776 samples at concentrations up to 12,900 ppm, lead was detected above SCOs in 219 of 4,585 samples at concentrations up to 28,600 ppm, manganese was detected above SCOs in 16 of 3,776

samples at concentrations up to 8,260 ppm, mercury was detected above SCOs in 82 of 3,694 samples at concentrations up to 70 ppm, nickel was detected above SCOs in 6 of 3,776 samples at concentrations up to 442 ppm, selenium was detected above SCOs in 5 of 3,776 samples at concentrations up to 11,200 ppm, and zinc was detected above SCOs in 8 of 3,776 samples at concentrations up to 14,200 ppm. Total SVOCs have been detected at a total concentration of 630 ppm.

Target fill was observed at depths less than 2 feet in 191 of the 886 soil borings advanced in OU1, OU2 and OU5. Target fill was observed at depths greater than 2 feet in 272 of the 886 soil borings advanced in OU1, OU2 and OU5.

Groundwater samples have been 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. Groundwater monitoring to date has not identified levels of site-related contaminants above groundwater standards. The area is served by public water and no private water supplies (other than the school's irrigation well) are known to serve this area.

Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People may contact contamination by digging or otherwise disturbing soils in areas of known soil contamination or in areas where visible fill containing ash, brick, or glass is present.

Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Basis for Selection

The selected remedy is based on an evaluation of alternatives given the challenging circumstances of an existing residential neighborhood which was developed over areas where waste was disposed. An unrestricted cleanup would necessitate extensive excavation, including some building demolition, and would be overly destructive to the existing residential properties. An unrestricted use remedy is not feasible or necessary to be protective of human health and the environment. The selected remedy will consist of excavation and removal of target fill and contaminated soil within the top two feet to meet the residential SCO remedial goals. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375 and a consideration of each of these criteria is described below. The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

The selected remedy will satisfy this criterion by removing the target fill and contaminated soils in the top two feet which exceed residential soil cleanup objectives (as defined by 6 NYCRR Part 375-6.8) from the impacted properties and properly disposing of them off-site. The selected remedy addresses the soil contamination near the surface, which is the most significant threat to human health and the environment. The selected remedy relies on a cover system, a site use restriction, and a Site Management Plan to protect public health and will also include a restriction on groundwater use on the site as a precautionary measure. The risks of uninformed large scale digging or construction operations will be managed through Institutional Controls. While removal to achieve unrestricted use removes the greatest amount of target fill and contaminated soils, this alternative would result in a significant impact to the community. The duration of a removal and increase in truck traffic to achieve unrestricted use would be substantial. The potential for vehicle and pedestrian accidents would be much higher for a removal to achieve unrestricted use because of the large number of trucks to be loaded and driven through surrounding neighborhoods during the remedial work. Dust control efforts would be significant during a removal to achieve unrestricted use since nearly all the target fill and contaminated soils with elevated concentrations of metals and semi-volatile organic compounds would be excavated. Overall, the selected remedy will be much less disruptive to the community while still achieving the goal of being protective of human health and the environment.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

The selected remedy complies with SCGs to the extent practicable, while allowing for the continued existence of the established community. It complies with the residential use soil

cleanup objectives at the surface by removal of target fill and contaminated soils in the top two feet and through construction of a cover system to prevent contact with any contamination remaining below two feet.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or contamination remains on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

Long-term effectiveness is best accomplished by those alternatives involving excavation of the contaminated overburden soils. Removal of all of the chemical contamination would remove the need for property use restrictions, but significantly alter the character of the existing neighborhood. The selected remedy provides for a cleanup that results in removal of all of the contamination from the top two feet to minimize the potential for exposure. The selected remedy also requires institutional controls, a cover system, and long-term site management. The selected remedy will also include a groundwater use restriction as a precautionary measure.

The institutional controls will ensure proper excavation of soils below two feet except for perhaps small excavations such as planting bushes or installing posts, which would not result in substantial potential risk if the excess soils were disposed of in household garbage (or dispersed on the ground surface if no target fill is observed) and the resident observed common sense practices such as handwashing, etc.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

The selected remedy, which includes limited excavation and off-site disposal, reduces the toxicity, mobility and volume of on-site waste by transferring the material to an approved off-site location. However, depending on the disposal facility, the volume of the material will not be reduced. Removal to achieve unrestricted use would require the excavation and disposal of a much larger volume of soil than the selected remedy.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Removal to achieve unrestricted use and the selected remedy both have short-term impacts which could be controlled, however, the selected remedy will have the least impact due to the lower volume of soil to be removed and replaced, thereby limiting the impacts of noise, traffic and possible accidents as a result of the lower number of truck trips required to implement the selected remedy. The time needed to achieve the remediation goals is much shorter for the selected remedy and significantly longer for removal to achieve unrestricted use. Removal to achieve unrestricted use would involve significant impacts to the existing community in terms of both disruption and time.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

The selected remedy is favorable in that it is readily implementable. Removal to achieve unrestricted use is marginally implementable, and the volume of soil excavated under this alternative will necessitate increased truck traffic on local roads for a longer period of time as well as significant disruption to the existing community. Removal to achieve unrestricted use and the selected remedy both have challenges with implementation such as obtaining access and coordinating activities with property owners and utilities. The selected remedy is more easily implemented than removal to achieve unrestricted use because the selected remedy removes a smaller volume of soil from each property.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

The costs of the alternatives vary significantly. The selected remedy has a lower cost, but has on-going annual costs on-site associated with long-term maintenance of the cover system and other site management activities. However, once remediation is complete, annual site management costs are expected to be relatively low. Removal to achieve unrestricted use is much more expensive, but does not provide a proportional increase in protection.

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

Since the existing and anticipated use of the site is generally residential, the selected remedy is less desirable because at least some contaminated soil remains on the property whereas removal to achieve unrestricted use removes all of the contaminated soil

permanently. However, the remaining contamination with the selected remedy will be controllable with construction of a cover system, institutional controls, and implementation of a Site Management Plan.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It was evaluated after public comments on the Proposed Remedial Action Plan were received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the proposed remedy were evaluated.

The remedy is being selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criteria. The selected remedy is protective of human health and the environment.

Description of the Remedy

The remedy will be implemented in accordance with a Department approved schedule and order on consent established to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. The schedule shall provide for remedy implementation to commence within 60 days of the Department's approval (or other time frame as the Department agrees upon in writing) of the remedial design for any property to be completed in the first year with a goal of completing as many properties in the first year as practicable.

The remedy will consist of excavation and removal of target fill to conform to Commissioner Policy CP-51 Section G and excavation and removal of soil within the top two feet to meet the residential SCO remedial goals, with some flexibility to be employed by the Department and NYSDOH on a case-specific basis. This flexibility may allow for limited confirmation samples to exceed the SCO levels, based on concentration, the location and/or depth of the sample exceeding the SCO and the implementability of the removal and exposure potential, while still achieving sufficient removal to assure a protective cleanup for which a no further action determination can be issued, with site management where appropriate.

Case-specific consideration will also be applied to accommodate property owner concerns related to preservation of their property with respect to specific features such as mature trees, sheds, decorative plantings, or other features of significance to the property owner, where possible.

The elements of the selected remedy for OU1, OU2 and OU5 are:

1. Remedial Design - A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. The program will include, but may not be limited to the following elements:
 - a pre-design investigation will be conducted to determine the limits of excavation to meet residential SCOs and any impacts; and
 - development of general and property specific sampling and excavation plans. These plans will include pre-excavation soil sampling and analysis where needed to better define the excavation limits required to achieve the remedial goals for each property.

The property specific plans will detail the limits of excavation on each property, and indicate any limitations with regard to property specific features (e.g., trees) that are agreed to with the property owner. Development of the property specific plans will include an inspection of each property. Properties where basements are identified as having dirt floors will be evaluated for consistency with the remedy as appropriate. The plans will also indicate the removal and replacement of any property specific features (e.g., sheds, fences). Each property owner will be consulted during the development of their property specific plan; and

- development of a health and safety plan that will include the necessary details to protect residents, workers and the general public during implementation of the final remedy; and
- development of a tree preservation plan; and
- development of a public infrastructure protection and restoration plan. The plan will include a survey of publicly owned infrastructure both before and after the remediation. It will include pre-construction surveys as needed. The plan will include measures for mitigating or repairing any damage that may be caused to local infrastructure by the remedial action; and
- evaluation of approaches to minimize the disturbance and disruptions to the community during construction so that the character of the neighborhoods and quality of life can be maintained, to the extent feasible; and
- Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31.

2. Excavation and Off-Site Disposal - Contaminated soils in the top two feet which exceed residential soil cleanup objectives (as defined by 6 NYCRR Part 375-6.8) and target fill in accordance with Commissioner Policy CP-51 Section G will both be excavated and disposed at a facility permitted to accept the material. The Department may require deeper excavation on a property only if that excavation: is only marginally deeper than two feet; is only in a limited area of that property; and will result in a cleanup for which a no further action determination (without site management) could then be issued for that property. An evaluation of all samples from an individual property will be performed, recognizing the heterogeneity of contamination and the uncertainty of sampling and analysis. The Department, in consultation with NYSDOH, will exercise limited discretion when determining that remediation is complete and has generally achieved the remedial goals where some discrete samples may not achieve the established cleanup levels. This flexibility will be tied to exposure potential. Also, the Department, in consultation with the NYSDOH, may determine that remediation is complete for properties when (1) there are a large number of confirmatory samples; (2) the vast majority of confirmation samples indicate that the soil cleanup levels for the site have been achieved; and (3) those that do not achieve the SCO exceed it only by a small amount. This determination will also accommodate property owner concerns related to preservation of their property with respect to specific features such as mature trees, sheds, decorative plantings, or other features of significance to the property owner where possible.

3. Restoration of Excavated Areas - All areas where soil is excavated will be restored in accordance with the restoration requirements set forth in the approved remedial design, including:

- d. backfilling with clean fill soil and top soil as appropriate which meets the requirements of 6NYCRR 375-6.8 to establish the grades approved in the remedial design. The upper six inches of the soil will be of sufficient quality to maintain a vegetation layer. Lawns

will be restored by seeding or placement of sod. Trees and shrubs will be replaced at the discretion of the property owner and if any areas are determined to be wildlife habitat they will be appropriately restored to allow this use; and

- e. replacing landscaping features such as sidewalks, driveways, and other property-specific features (e.g., pools, sheds, fences) in kind (and consistent with local building codes) where removal is required to implement the remedy. The need for removal of any property-specific features will be determined during the design of the remediation phase in consultation with the affected property owners; and
- f. restoring publicly owned property and infrastructure if it is shown to have been damaged by remedial activities. Any affected property shall be replaced in accordance with local building codes and standard industry practices.

4. Cover System - A cover will be required to allow for residential use of the property. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the development or a soil cover in areas where soils which exceed the applicable soil cleanup objectives (SCOs) or target fill will remain below two feet. Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for residential use. Soil covers which are installed will be placed over a demarcation layer, however existing soils which meet the applicable soil cleanup objectives (SCOs) and have no target fill do not need to have a demarcation layer installed. Any fill material brought to the property will meet the requirements for the identified land use as set forth in 6 NYCRR Part 375-6.7(d).

5. Site Management - A Site Management Plan (SMP) is required, which includes, but may not be limited to, the following:

- c. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the area of concern and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: requires Corning Incorporated to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375- 1.8(h)(3). Institutional controls also include any voluntary agreements between Corning Incorporated and respective property owners for access and any other pertinent provisions to enable the installation and maintenance of cover systems, management of remaining contamination, excavation, inspections, sampling, and/or any other requisite activities.

Engineering Controls: The soil cover discussed in Paragraph 4 above.

This SMP will include, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations, including a provision to allow a homeowner to dispose of inconsequential amounts of ash, brick and glass in household garbage; and

- a provision for further investigation to refine the nature and extent of contamination and remediation, if necessary, in areas where access has not been previously granted; and
- a provision for further investigation and remediation, if necessary, on properties where future excavations occur at depths greater than that remediated under this remedy or where unexpected target fill is encountered regardless of depth; and
- a provision for the management and inspection of the identified engineering controls, including within right-of-way areas (while usage of these areas is generally controlled by their right-of-way status, Corning Incorporated has committed to address potential exposures related to required maintenance or repairs to piping, culverts, *etc.* and the presence of remaining contamination including excavation, management and disposal in accordance with the intended use of the right-of-way area); and
- a provision for maintaining access control and Department notifications; and
- a provision for tracking property ownership changes to allow for continued communication with owners, including annual notification by Corning Incorporated to new property owners of Corning Incorporated's offer to implement the remedy for new property owners for a period of two years following the change in ownership. This provision to notify new property owners will run for a period of fifteen years after the completion of the work on all properties where access was provided to Corning Incorporated for investigation and/or remediation after which the Department will evaluate additional measures on unaddressed residential properties which may be needed to be protective of human health; and
- a provision for annual notification by Corning Incorporated to property owners of Corning Incorporated's offer to implement the remedy for property owners who chose to decline remedy implementation and/or sampling on their property for a period of five years after the completion of the work on all properties where access was provided to Corning Incorporated for investigation and/or remediation; and
- a provision for an annual reminder from Corning Incorporated to property owners with post-remedy remaining soil contamination of the presence of such remaining contamination, and of Corning Incorporated's commitment to handle (excavate, manage and dispose) remaining contaminated soils, as necessary and in accordance with the intended use of the property; and
- a provision for Corning Incorporated to publish a map depicting the status (remediated, awaiting remediation, unaddressed due to lack of access provided to Corning Incorporated) of properties located in the area addressed by this Decision Document annually to the Department, the NYSDOH, the City and Town of Corning and Steuben County; and
- a provision for an annual reminder from Corning Incorporated to the City and Town of Corning Code Enforcement Offices and Departments of Planning and Economic Development to timely inform Corning Incorporated of any building permits or other approvals they grant for properties within the area addressed by this Decision Document where contamination remains post remedy; and

- a provision for Corning Incorporated to send annual reminders to the City of Corning, Town of Corning, and/or Steuben County to timely inform Corning Incorporated of any City or County plans to conduct intrusive maintenance work within the area addressed by this Decision Document (*e.g.*, soil disturbance work); and
 - provisions for conducting periodic reviews and certifying the institutional and/or engineering controls.
- d. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of groundwater to assess the performance and effectiveness of the remedy; and
 - a schedule of monitoring and frequency of submittals to the Department; and
 - an annual visual inspection of properties to ensure that controls remain in place and effective.
6. An Interim Site Management Plan (ISMP) is required during pre-design, design and remedial activities that is consistent with Paragraph 5 (above) for properties located in the area addressed by this Decision Document including rights of way and utility corridors. The ISMP is intended to address all soil management issues until the remedy is fully implemented and will terminate once all properties where access was granted are remediated and a Department approved SMP is in place.



Google earth

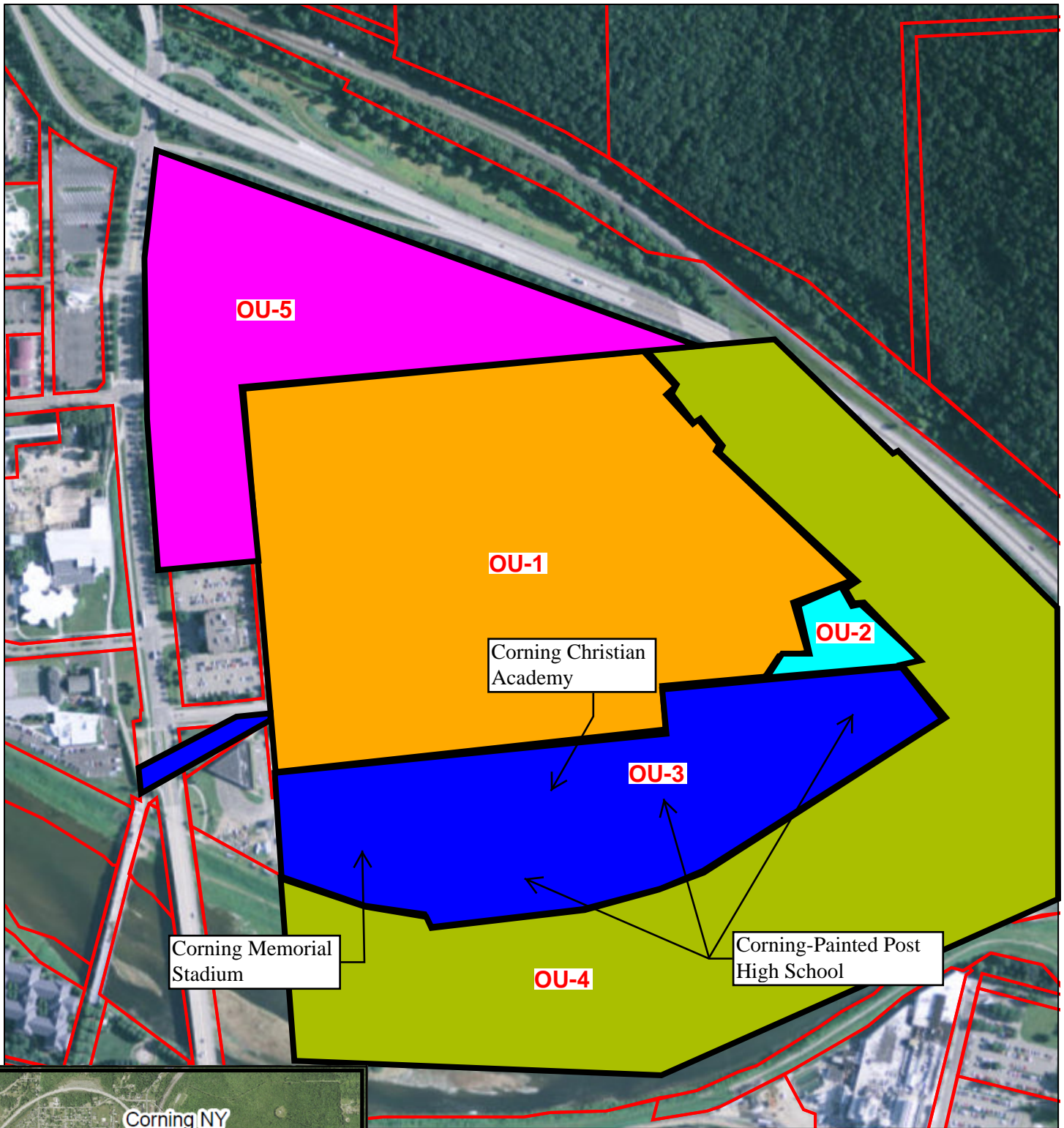
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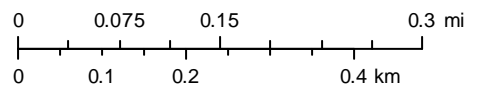


Study Area Operable Units



Department of
Environmental
Conservation

1:9,028



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community