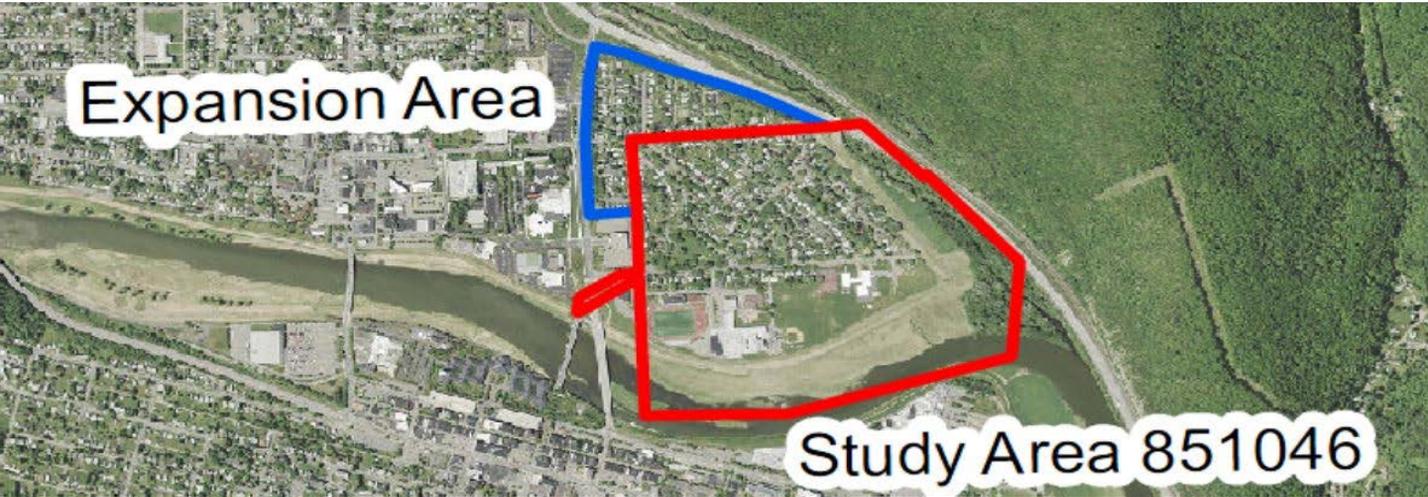




Department of  
Environmental  
Conservation



# Project Update

May 11, 2016

**New York State  
Department of Environmental Conservation  
&  
New York State  
Department of Health  
Representatives**

Greg MacLean, NYSDEC Project Manager

Bernette Schilling, NYSDEC Regional Hazardous Waste  
Engineer

Justin Deming, NYSDOH Public Health Specialist

# Meeting Agenda

- Meeting Purpose & Project Background - *NYSDEC*
- Study Area Findings - *Corning Incorporated/Weston Solutions*
- Expansion Area Findings - *NYSDEC*
- Exposure Evaluation & Recommendations - *NYSDOH/NYSDEC*
- Potential Remedial Measures – *NYSDEC*
- Next Steps – *NYSDEC/Corning Incorporated*
- Questions and Answers - *All*

# Purpose of Meeting

- Explain findings of most recent investigation work
  - The site characterization phase is completed in portions of the Study and Expansion Areas <http://www.dec.ny.gov/chemical/8660.html>
  - A remedial investigation will be completed in the Study and Expansion Areas with the potential for Interim Remedial Measures <http://www.dec.ny.gov/chemical/8658.html>
  
- Discuss the State's evaluation of longer term measures to prevent exposures
  
- Discuss how Corning Incorporated, under the State's oversight, will complete supplemental investigation work and implement longer term measures to prevent exposures

# Study Area Background

- Fill encountered during expansion of CPP High School in 2012 contained ash, brick, and glass (target fill)
  - contained arsenic, cadmium, and lead
  - some of the excavated fill disposed of as hazardous waste
  
- 1920 property deed for the Study Area contained provision for Corning Glass Works to maintain ash dumps as then located
  
- Corning Incorporated entered into an Order with DEC in June 2014



# Expansion Area Background

- Residential Areas immediately to north and west of the Study Area
  
- Target fill had been initially confirmed
  - at northwest boundaries of Study Area
  - at multiple residential properties in the Expansion Area during preliminary sampling by DEC
  
- Expansion Area Characterization initiated by DEC in May 2015, funded by State Superfund

# Study Area Findings

## Corning/Weston Presentation

# Expansion Area Characterization 2015

- 104 of 108 residential properties were sampled by DEC
  - 4 surface soil samples from 0-2” collected per property
  - Vegetable Garden samples collected from 0-12”
  - Minimum of 2 soil borings per property to 16 foot depth; samples collected from:
    - 0 - 2 feet and 2 - 4 feet;
    - layers of target fill;
    - native soil beneath target fill or bottom of boring or test pit.
  - Additional soil borings on many properties to confirm presence or absence of layers of target fill
  
- 34 soil borings, 7 test pits, and 2 surface soil samples completed in City and DOT road right-of-way (ROW) areas



# Expansion Area Characterization 2015

- All soil samples tested for standard list of 23 metals
  
- Samples of target fill and adjacent native soil also tested for:
  - Semi-Volatile Organic Compounds (can be found in coal ash)
  - List of 8 specific metals using Toxicity Characteristic Leaching Procedure (TCLP). Note that TCLP is a soil sample extraction method for chemical analysis employed as an analytical method to determine if a waste is characteristically hazardous according to regulation.



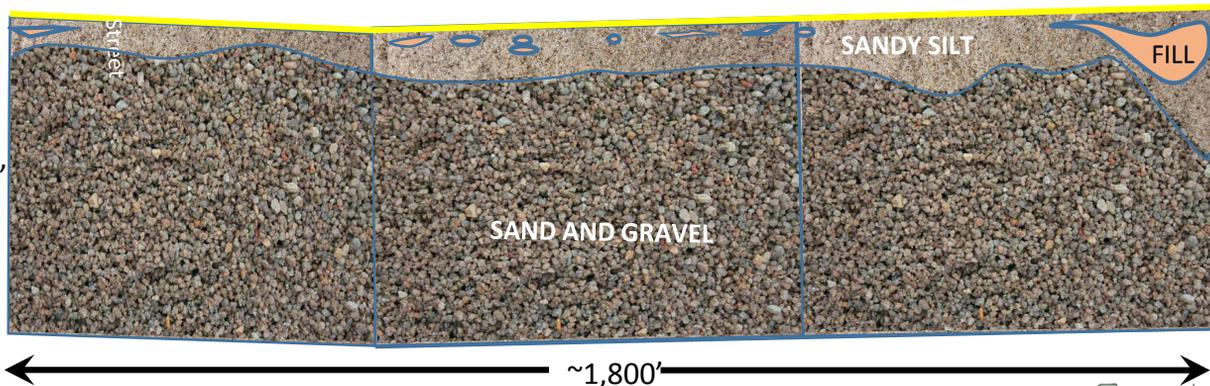
## Expansion Area Findings

- Testing results exceed residential SCOs\* at 64 properties
  - Testing results exceed Hazardous Waste regulatory levels, TCLP, in target fill at 11 properties
  - Layers of target fill (minimum 1 inch thickness) confirmed at 50 properties
  - Soil borings and test pits in ROW areas confirm the presence of target fill with SCO\* exceedances west and north of the residential parcels (toward Centerway and the I86 sound barrier)
- \* SCOs are the concentration of a given contaminant in soil to be achieved under a remedial program

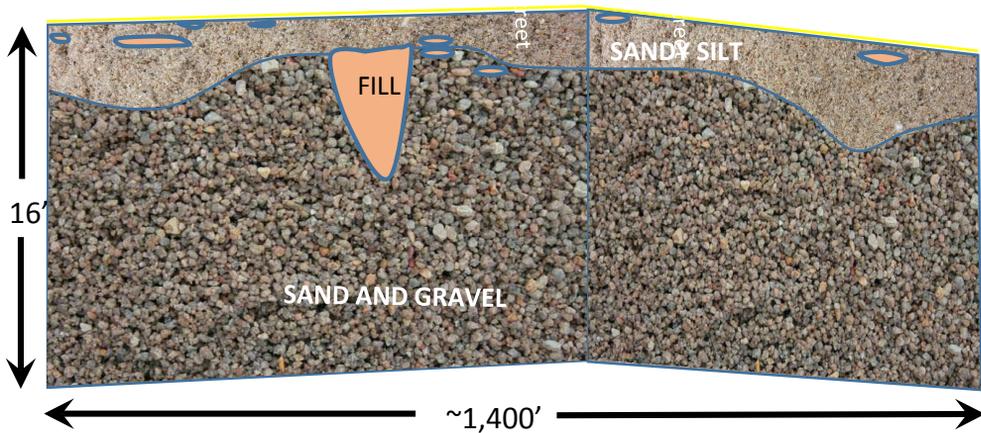
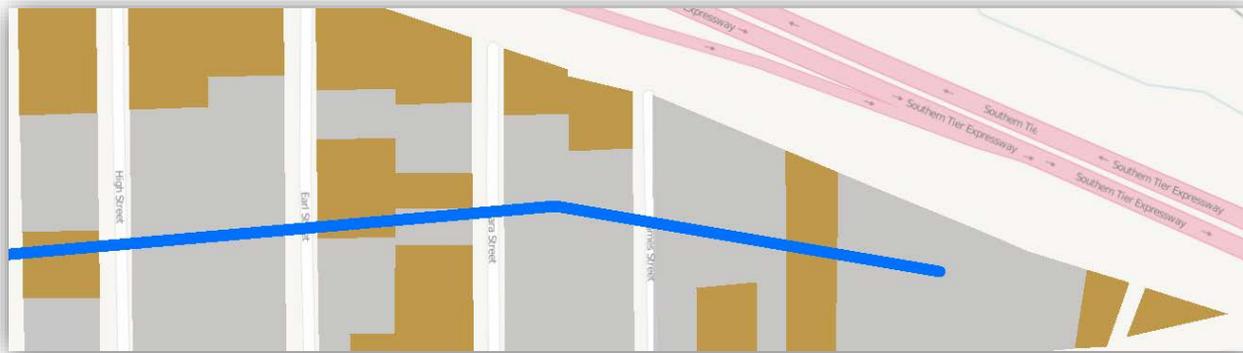
# Subsurface Depictions

- The following slides provide cross sections based on boring data collected in the Expansion Area
- Cross sections are graphical representations of vertical slices through the earth used to portray information in a visual form so that subsurface characteristics can be readily interpreted
- The vertical scale is shown to the left of the cross sections and coincides with the depth of the soil borings

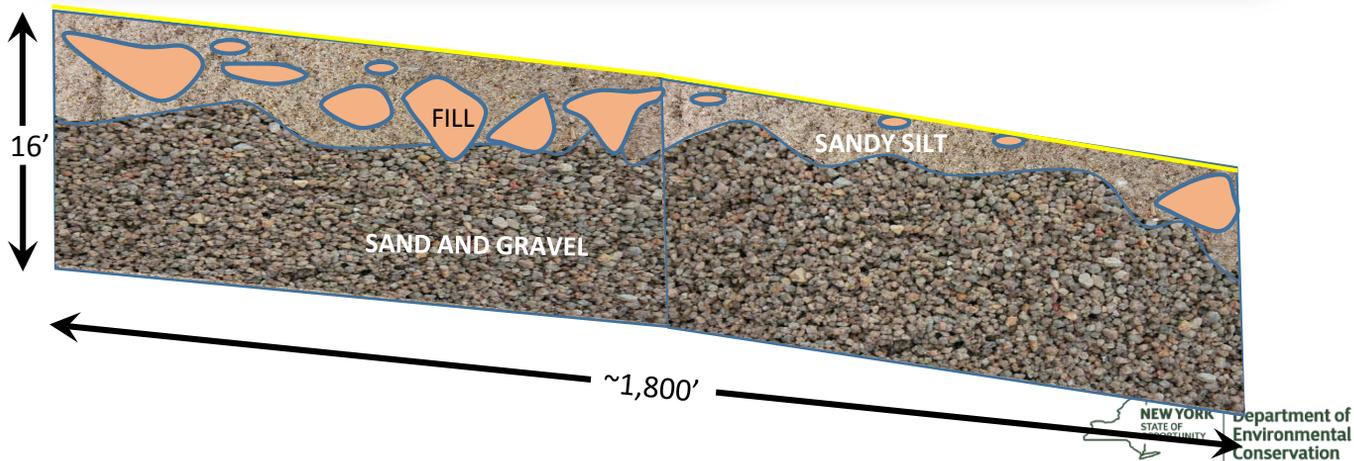
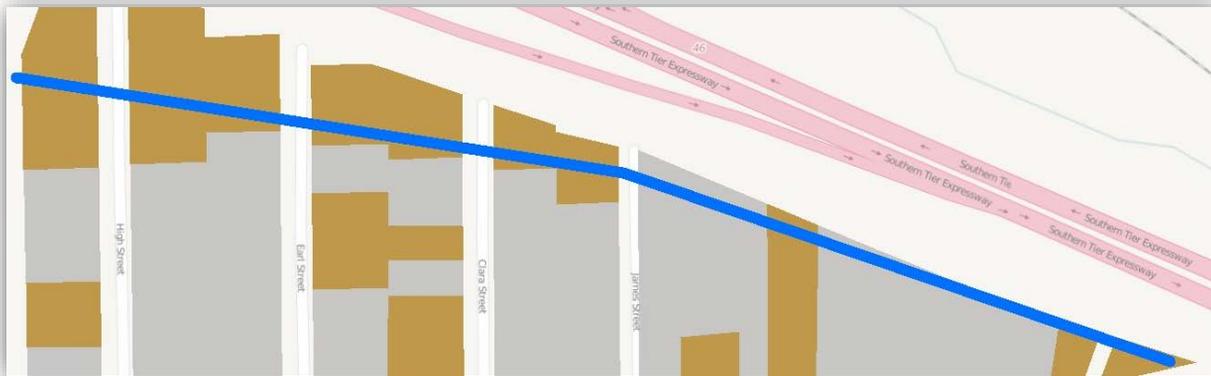
# Subsurface Depictions



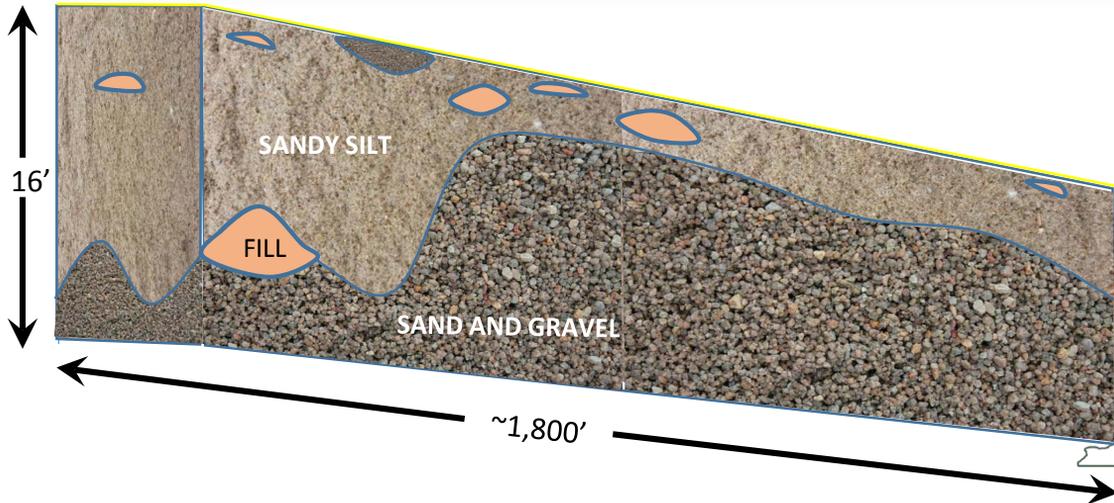
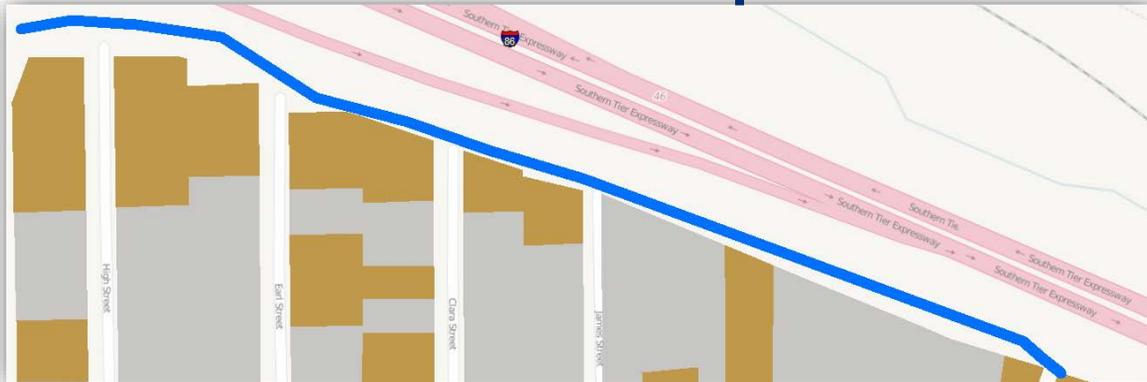
# Subsurface Depictions



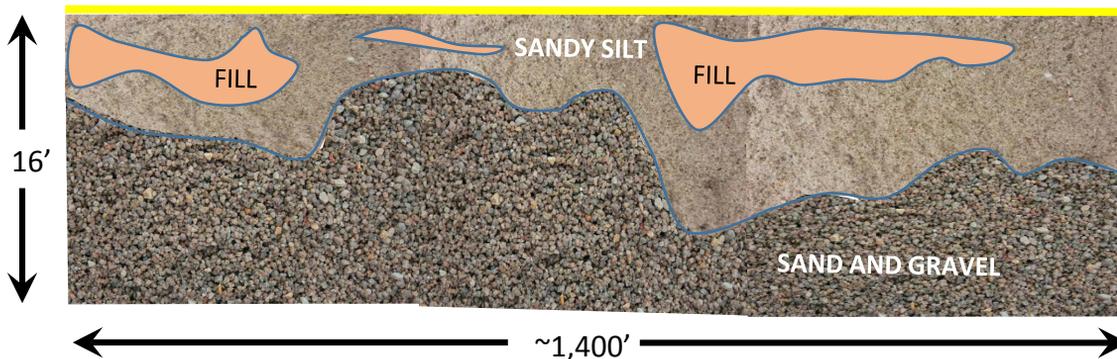
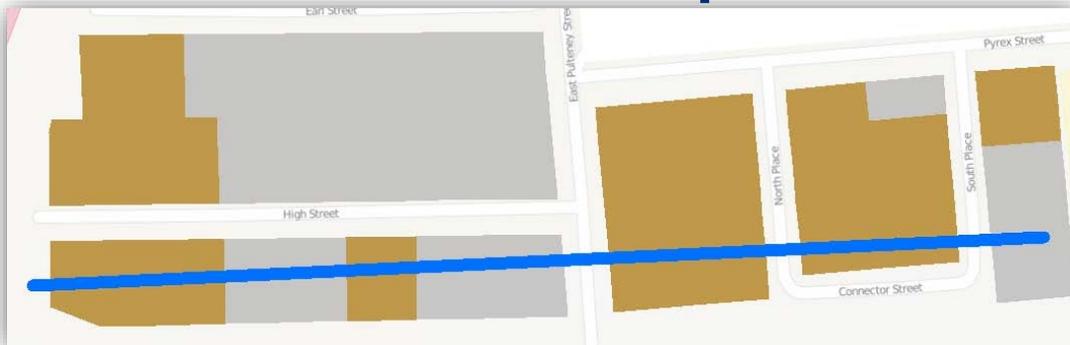
# Subsurface Depictions



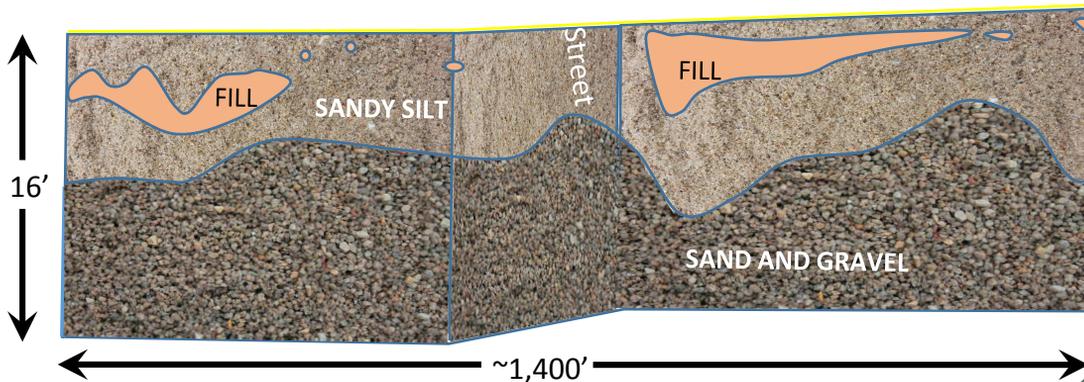
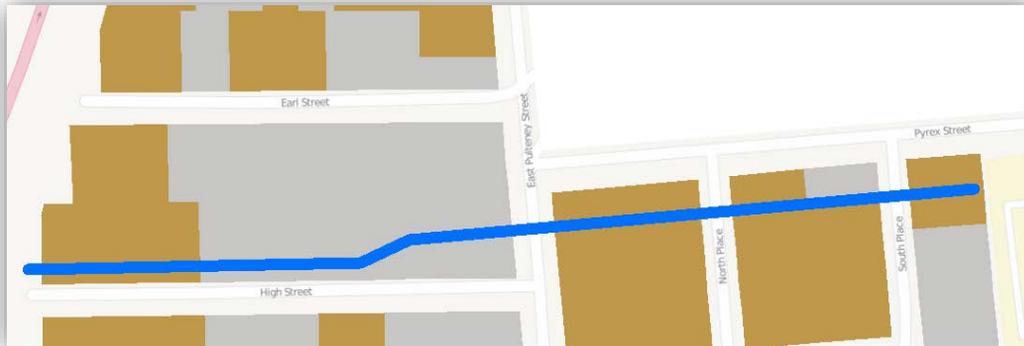
# Subsurface Depictions



# Subsurface Depictions



# Subsurface Depictions



# Exposure Evaluation Big Picture

- While exceedances of metals have been found in some of the surface, sub-surface and garden soil sample results, measures can be taken to minimize contact and in doing so will reduce your potential for exposure
- Groundwater has not been found to be impacted to date

# Potential Exposures

- Contact with metals 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 in soil if they get soil on their hands or vegetables and swallow or ingest the soil through hand-to-mouth or eating activities

# Recommendations to Reduce Exposure while Investigation Continues

- Maintain a grass or mulch cover over soil
- Avoid unnecessary digging
- Avoid bringing soil inside the house by brushing off your clothes and remove shoes at the door
- Doormats and periodic damp mopping of floors for soil that might be tracked indoors
- Wash hands with soap and water after outdoor activities



# Recommendations for Gardening while Investigation Continues

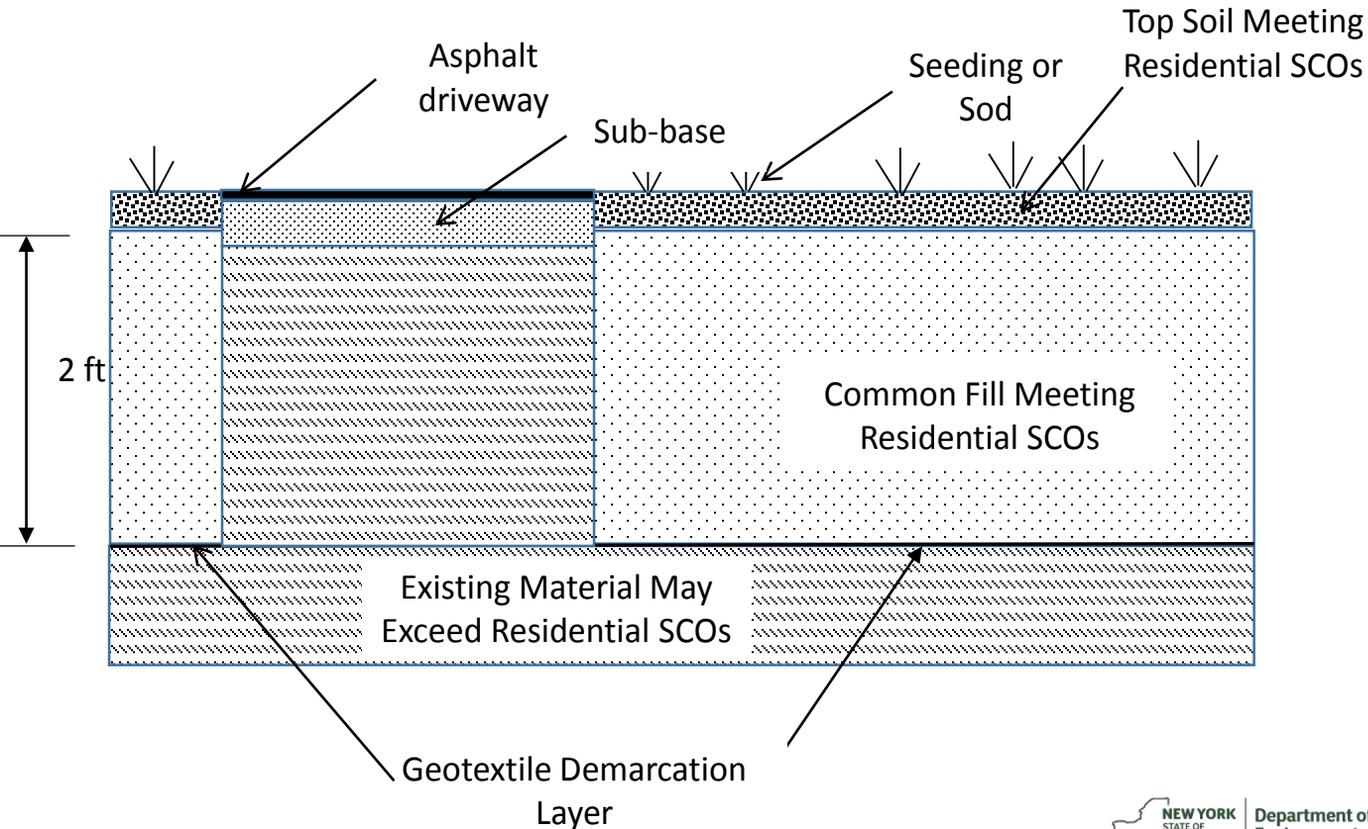
- Grow vegetables in raised beds with clean soil at least ten inches deep
  - Use untreated wood to make the beds. Pressure-treated wood and railroad ties contain added chemicals
  
- Wear gloves when working in the garden
  
- Wash with soap and water after gardening or any time before you eat
  
- Additional information about healthy gardening may be found at:  
<http://www.health.ny.gov/publications/1301/>



# Longer Term Alternatives to Prevent Exposure

- Recommendations to reduce exposures or for gardening while investigation continues may not be effective long term
  
- DEC, in consultation with DOH, has evaluated the following measures to prevent exposures:
  - the top 2 feet of soil at a residential property to meet residential SCOs
  - existing features (e.g., paved driveway) would be incorporated into a cover system over any remaining contamination
  - institutional controls to minimize uncontrolled disturbances of remaining contamination

# Two-Foot Soil Cover



# Institutional Controls

- Environmental Easement – an interest in a property by DEC which restricts its use in accordance with a Long Term Management Plan  
[www.dec.ny.gov/docs/remediation\\_hudson\\_pdf/der33.pdf](http://www.dec.ny.gov/docs/remediation_hudson_pdf/der33.pdf)
  
- Other institutional controls being considered which may supplement or replace the environmental easement:
  - Notice to prospective purchasers
  - Local building code or permit controls
  - Procedures for materials management if City (e.g., Department of Public Works) encounters waste (i.e., ash, glass, brick) in the normal course of business
  - The existence of the deed provision referencing the maintaining of ash dumps in the Study Area may require an additional deed notice to be filed with the County Clerk
  - For more information on institutional controls go to:  
<http://www.dec.ny.gov/chemical/8665.html>

# Long Term Management Plan

- Identifies and implements institutional and engineering controls such as an environmental easement and the cover system
- Provides direction as to handling, management, and disposal during any future excavation beneath a cover system or involving other contaminated material
- An example template is provided at:  
[www.dec.ny.gov/docs/remediation\\_hudson\\_pdf/smptemplate.pdf](http://www.dec.ny.gov/docs/remediation_hudson_pdf/smptemplate.pdf)



# Supplemental Investigation

- Supplemental investigation is needed to further investigate some properties to fully determine:
  - The existence and extent of any exceedances of soil cleanup objectives; and/or
  - The quality of the existing top two feet of soil



# Remedy Implementation

- Corning Incorporated would propose Interim Remedial Measure (IRM) Work Plan(s) requiring:
  - A 30-day public comment period prior to approval by DEC
  - Objective would be to remove contamination from shallow and accessible areas and, where practical, some marginally deeper excavation could be considered to avoid a cover system on a property
  - If contaminated soil is removed and replaced, imported soil needs to meet the residential SCOs and a demarcation layer would be installed if contamination remains at deeper levels
  - Access agreements would detail proposed remedial work and restoration efforts on each individual property
  - More information on IRMs can be found at:  
<http://www.dec.ny.gov/chemical/8659.html>

# Closeout Requirements

- DEC, in consultation with DOH, will ultimately issue:
  - No Further Action (NFA) letters to owners of property where:
    - No IRMs are needed and adequate testing demonstrates that applicable SCOs are not exceeded; or
    - IRMs are completed and adequate testing demonstrates that remaining soils do not exceed applicable SCOs
  - NFA with Site Management (SM) letters to owners of property where:
    - No IRMs are needed and applicable SCOs are exceeded in material at depths greater than two feet; or
    - IRMs are completed and applicable SCOs are exceeded in remaining material under cover systems

# Flexibility with the Proposed Measures to Prevent Long Term Exposures

- Excavation and removal of soils within the top two feet to meet the residential SCOs
  - Some flexibility to be employed by the DEC on a case-specific basis to:
    - allow for limited samples to exceed SCOs, based on the location and/or depth of the exceedance, implementability of the removal, and the exposure potential; and
    - 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
  - In all cases, sufficient remediation will be achieved to assure a protective cleanup for which a no further action determination is appropriate

# Study and Expansion Area Next Steps

- Residential Properties
  - Corning Incorporated to submit an addendum to the Study Area Characterization Work Plan for additional residential soil sampling
  - Once approved by DEC/DOH, Corning Incorporated to provide access agreements to applicable property owners
  - Corning Incorporated may prepare and submit an IRM Work Plan for certain residential properties where the need for remediation is evident
  - Public notice and 30 day comment period would be required prior to final decision by DEC

# Schools and Stadium Properties Next Steps

- 30 Day Public Comment period ends June 6 for proposed IRMs
- DEC/DOH will review and consider any public comments
- DEC anticipates approval of proposed IRM Work Plans, if appropriate, by June 20, 2016
- IRM fieldwork anticipated to take place late June to early July
- Work will be coordinated with the City and School Administrators

# Homeowner Availability Sessions

- Property Owners and occupants are invited to meet one-on-one with DEC/DOH and Corning Incorporated officials to discuss their individual property results and next steps
  
- **Tomorrow; May 12, 2016, 9 am – 9 pm**
- **Friday; May 13, 2016, 9 am – 5 pm**
  - Some 15 minute time slots still available
  - Sign-up sheet on table at entrance



# To Stay Informed

NYSDEC Study Area Website

[www.dec.ny.gov/chemical/97180.html](http://www.dec.ny.gov/chemical/97180.html)

List-Serv Signup

[www.dec.ny.gov/chemical/61092.html](http://www.dec.ny.gov/chemical/61092.html)

Document Repository

**Southeast Steuben County Library**

300 Nasser Civic Center Plaza

Suite 101

Corning, NY 14830

Phone (607) 936-3713



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# QUESTIONS?

