



Onondaga Lake

**Water Treatment Plant Preloading and
Sediment Consolidation Area
2010 Construction**

Community Health and Safety Plan



July 2010

COMMUNITY HEALTH AND SAFETY:

Sediment Consolidation Area Construction and Initial Work for the Water Treatment Plant

Comprehensive efforts to protect the public's health and safety are an important part of the work to restore Onondaga Lake. Health and safety plans are reviewed by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) and are incorporated into every stage of the restoration. These plans include management and monitoring that exceed government requirements and industry standards.

Construction of the sediment consolidation area (SCA) will begin in 2010. The work on the SCA, which will be done in stages, will be described in separate work plans that outline the activities and schedule for each stage of work.

This health and safety plan describes the protective measures that will be taken during the first stage of SCA construction, as well as initial construction activities for the water treatment plant (WTP). These activities will take place in 2010. For construction scheduled for 2011 and 2012, this health and safety plan will be augmented to include information relative to those activities. A separate health and safety plan will be developed for operational activities starting in 2012. These activities will include the removal, transport, drying and storage of lake materials.

Construction activities will occur during the day. The work in 2010 includes placing clean fill material on the footprint of the future water treatment plant area (called "preloading"), clearing trees and shrubs, improving roads leading to the site, bringing in clean fill material for construction of berms, grading, excavating, and surveying. This work, which is scheduled to begin in August 2010, is similar to construction of commercial and infrastructure projects.

Detailed worker health and safety plans will implement measures to prevent injuries and accidents during construction activities.

Grading is a typical activity associated with many construction projects and is a component of the 2010 work at the SCA. This photo illustrates the grading activities at the Linden Chemicals and Plastics (LCP) site in Geddes. Remediation of the LCP site is now complete.



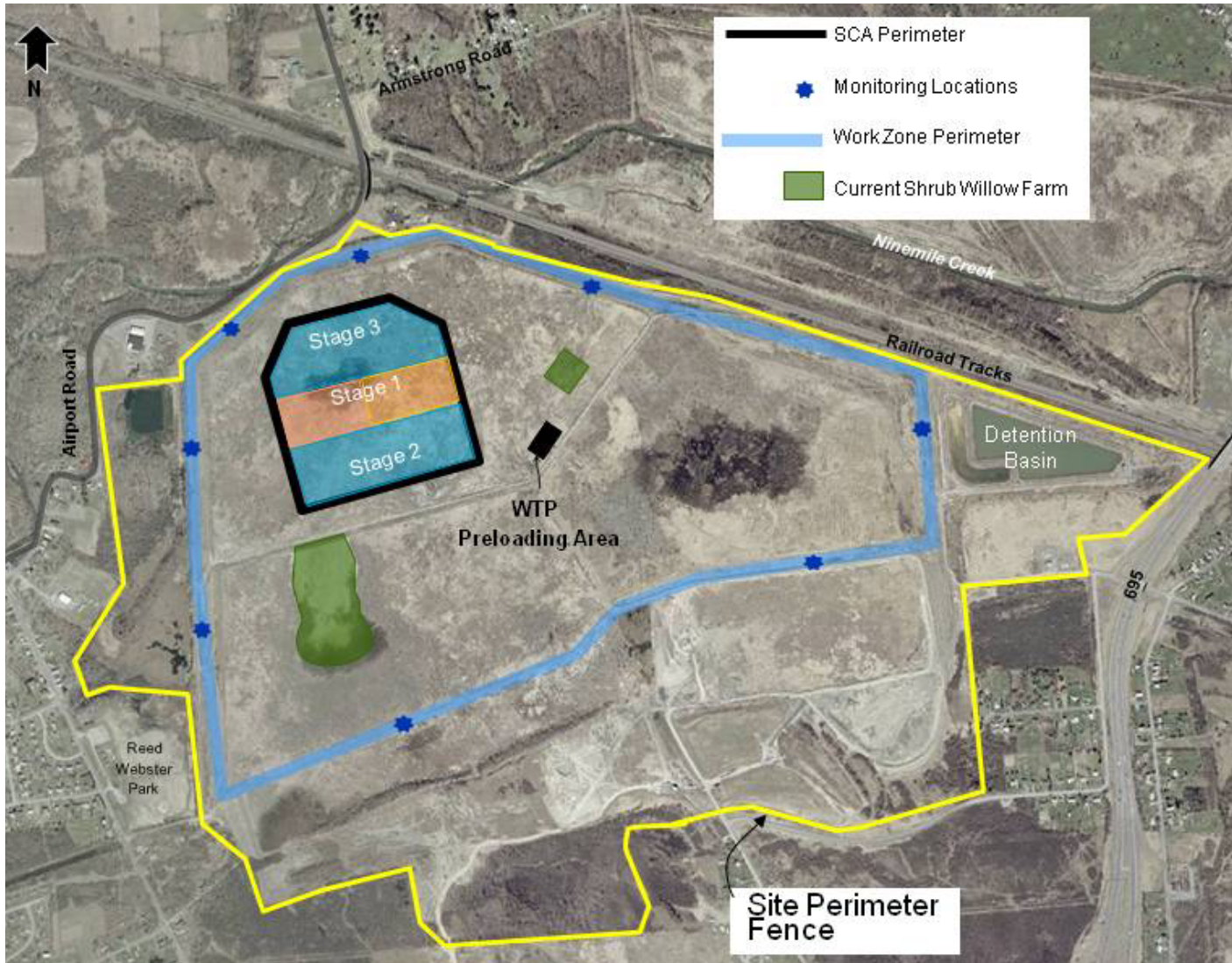
MANAGEMENT AND MONITORING

Management and monitoring will be implemented for the following aspects of SCA construction:

- Air quality
- Traffic
- Noise
- Spills from vehicles and/or equipment
- Site security

AIR QUALITY

The air monitoring program, which will operate during the entire project, will evaluate air quality at the work zone perimeter (shown as a blue line in the graphic below). Air monitoring results will be publicly available on Honeywell's website, www.onondaga-lake-initiatives.com. The air monitoring program has been specifically developed for this stage of the project and has followed the guidelines established by the NYSDOH's Generic Community Air Monitoring Plan (CAMP) for remediation programs (2000).



Most construction activities will occur on top of the existing ground surface. The work includes delivery and grading of clean fill to build the berms and composite liner system according to the design plans. Measures will be taken to ensure dust does not leave the work area and may include increased use of dust suppression methods such as using a water truck to wet site roadways, application of dust-suppressing road materials onto roadways, or use of fire hoses to wet-down excavations.

or soil placement/grading activities. During these activities, the air will be continuously monitored for particulates (i.e. dust) and volatile organic compounds (VOCs) to ensure that concentrations at the work zone perimeter remain below site-specific action levels.

Ground-intrusive activities, which are expected to be of a limited duration during the SCA construction, will consist of drilling and excavating as outlined below.

- Drilling to remove previously-installed piezometers and inclinometers
- Drilling to install new piezometers and inclinometers
- Shallow trenching to install settlement cells and settlement profilers
- Excavation for SCA sumps

If air monitoring indicates site-specific action levels are exceeded, the work generating the dust or VOCs will be stopped and there will be a re-evaluation of the work.

There will be eight fixed monitoring locations. The monitors (see diagram on page 3) will encircle the work zone. All air monitoring results will be reviewed regularly by site personnel and the Agencies to ensure that site-specific action levels are not exceeded. These locations will assess upwind and downwind air conditions and help determine whether the work zone and/or background conditions are having an impact on local air quality. Meteorological monitoring stations located in proximity to the work zone will be used to evaluate daily weather conditions.

Background Air Quality Monitoring

To establish an understanding of background ambient air quality at the work zone area prior to construction activities taking place, two weeks of dust and VOC monitoring will be conducted at the work zone perimeter. This information will help to identify pre-existing sources and locations of any dust and/or VOC generation in this area. In addition, site-specific action levels for this community health and safety plan should be established based on daily upwind/background readings.

Air Monitoring During Construction Activities

Particulate Monitoring

Dust will be monitored to ensure that concentrations at the work zone perimeter remain below site-specific action levels established for this stage of the project.

The NYSDOH has established action levels for particulates at $150 \mu\text{g}/\text{m}^3$ above background levels. To provide additional assurance, the equipment at the SCA perimeter will be set at a lower site-specific action level ($100 \mu\text{g}/\text{m}^3$ above background levels).

If this lower site-specific action level is exceeded for a 15-minute period, additional dust suppression measures (such as increasing the use of water or reducing equipment speeds) will be implemented. If the



Air monitors will be located at eight locations along the work zone perimeter. See page 3 for their locations.

NYSDOH action level is exceeded, the work generating the dust will be stopped and there will be a re-evaluation of the activities.

The dust monitoring will use real-time monitors capable of measuring dust less than 10 micrometers (PM-10) and capable of integrating PM-10 concentrations over a period of 15 minutes. Equipment will alert technicians immediately if dust exceeds the action level.

VOC monitoring

Air will be monitored continuously to ensure that total VOC concentrations at the work zone perimeter do not exceed site-specific action levels established for this stage of the project.

VOC monitoring equipment will consist of photo-ionization detectors (PIDs) that will measure total VOC concentrations continually during all construction activities. The equipment will log data real time, calculate a 15-minute average, and send alarms, if action levels are reached, to the technician's mobile phone.

The NYSDOH has established action levels for VOCs at 5 parts per million (ppm) above background levels. To provide additional assurance, the equipment will be set at a lower site-specific notification level of 2 ppm. Should the air monitors detect VOC concentrations exceeding the lower level for a 15-minute period, the source of the emissions will be investigated and evaluated.

If VOCs reach an average of 3 ppm for a 15-minute period, measures including covering the excavation or applying foam will be implemented. If a 15-minute average of 5 ppm is reached, work will be stopped until corrective measures are implemented.

Regular air monitoring will be conducted until work is complete. If the last reading indicates that VOC levels are elevated then the source of the emissions will be investigated and evaluated.

Odor Monitoring



Trained observers will use field olfactometers to monitor odors.

Odor monitoring will be performed with a Nasal Ranger field olfactometer by a trained odor observer twice per day at each of the eight monitoring stations to ensure compliance with site-specific action levels established for this stage of the project. Measurements will be collected over a 15-minute period.

If the measured odor unit (OU) averages more than 7 OUs over 15 minutes additional measurements at downwind locations or in the community will be performed. Because there are no federal or New York state standards for odor monitoring, 7 OU will be used because it is the odor monitoring standard for several other states.

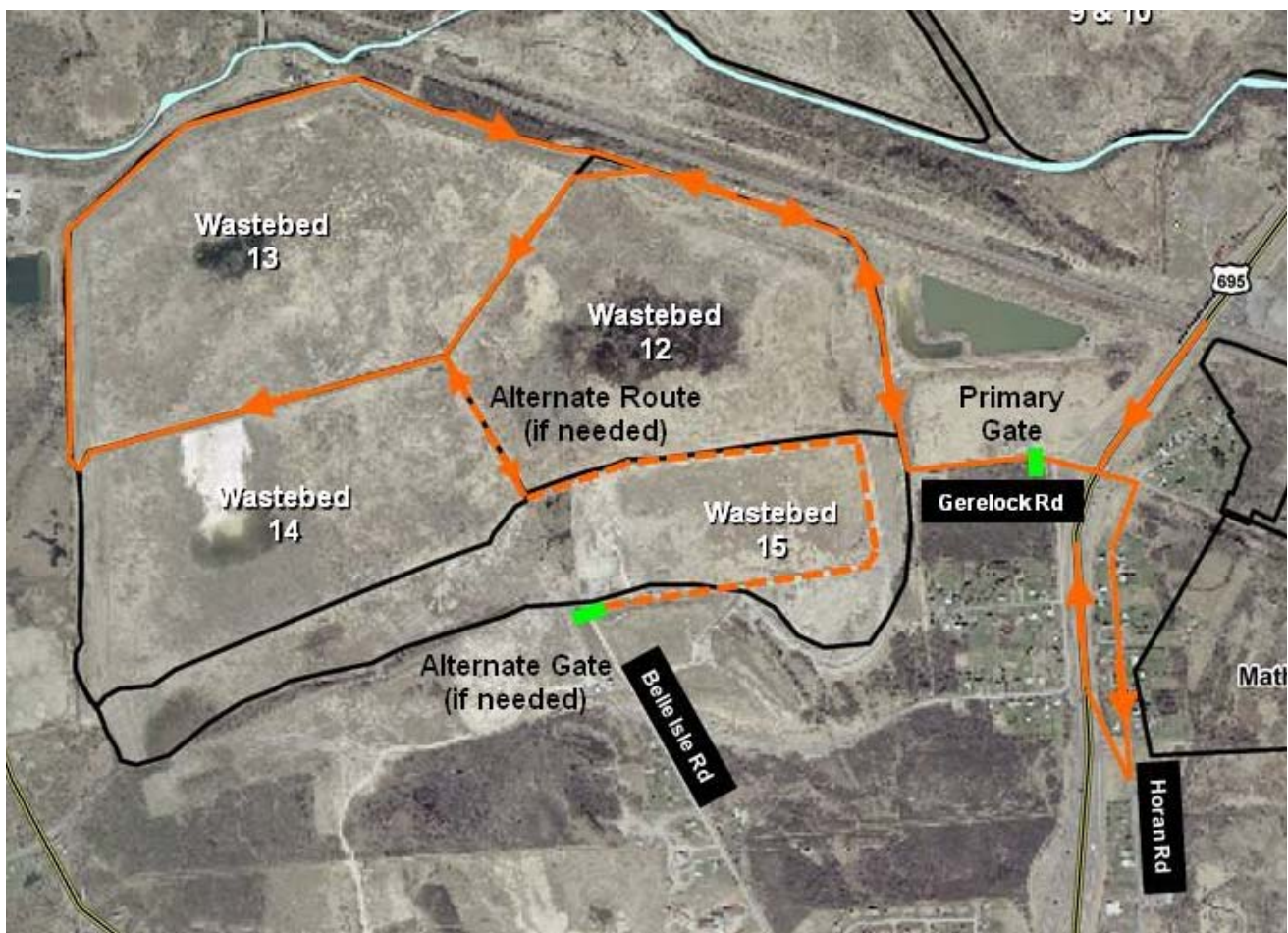
If measurements taken in response to requests for community odor monitoring are greater than 7, the source will be investigated, and if caused by the construction activities, control/countermeasures will be implemented. Measures to address VOCs and odors may include fire hoses to wet-down excavations, application of foaming agents, or

rescheduling of intrusive activities for days with weather conditions less conducive for generating VOCs or odor emissions.

TRAFFIC

The traffic plan designates potential traffic routes for the transport of clean fill material to and from the site. A study was completed as part of the SCA Design that compared the amount of expected SCA construction truck traffic to the total vehicle traffic and heavy vehicle traffic currently traveling on these routes. The SCA construction truck traffic will add less than 5% to the existing total traffic count and is therefore expected to have a minimal impact on the community.

The potential traffic route (with traffic flow directions) is illustrated below. The main entrance to the Wastebed 12 - 15 site will be through the Honeywell gate at Gerelock Road. Once on site the traffic will follow existing on-site gravel roads to and from Wastebed 13. Signs will be posted on the other Wastebed 12 through 15 gates to direct deliveries to the appropriate entrance.



NOISE

Noise monitoring will be conducted to proactively reduce noise emanating from construction equipment and operations in order to reduce the impact on the surrounding community. NYSDEC's "Assessing and Mitigating Noise Impacts" establishes guidance values for ambient noise levels of 55 dBA as being protective of public health and welfare (www.dec.ny.gov/permits/6224.html). The guidance document also notes that the addition of any noise source, in a non-industrial setting, should not raise the ambient noise level above a maximum of 65 dBA.

Evaluations have been completed to assess the potential noise impacts from construction equipment that will be used for this project. Based on the results of these evaluations, noise levels are not anticipated to exceed 65 dBA at the fence line, and furthermore, are not anticipated to exceed 55 dBA in residential areas around the site.

A sound-level meter will be used at the eight locations along the work zone perimeter to measure noise generated from construction activities at the site—such as from trucks, backhoes, bulldozers, and chainsaws. Measurements will be conducted twice a day to ensure compliance with site-specific action levels established for this stage of the project. If action levels are exceeded, increased monitoring will identify and confirm the cause of the noise. Changes will be made (to existing equipment or operations) and follow-up monitoring will be conducted to ensure compliance. If project noise criteria continue to be exceeded, the associated work will be stopped until the cause of the noise has been addressed.

SPILLS FROM VEHICLES AND/OR EQUIPMENT

Preventing spills from vehicles and construction equipment is necessary at all construction sites. Procedures that will be in place to prevent spills during construction are listed below. In the unlikely event that a spill does occur, site workers will take the appropriate response and reporting actions.

Petroleum-based fuels and oils will be used on the site for operation of heavy equipment. Fuels will be brought onto the site by a fuel tanker and stored on-site in portable storage tanks. On-site fuel storage tanks will have secondary containment and comply with the National Fire Protection Association (NFPA) 30 "Flammable and Combustible Liquids Code" and Occupational Safety and Health Administration (OSHA) 1910.106.

The following are material management practices that will be used to reduce the risk of spills:

1. Materials will be stored in a neat, orderly manner in their appropriate containers.
2. Products will be kept in their original containers with the original manufacturer's label.



Fuel tankers will safely transport fuels and oils to the site. This is typical for most construction projects.



A spill response kit will be available at all times at the work site.

3. Substances will not be mixed with one another unless recommended by the manufacturer.
4. Whenever possible, product will be used up or packages resealed before proper disposal of contents and containers off-site.
5. Manufacturers' recommendations for proper use and disposal will be followed.
6. Inspection will be made for proper use and disposal of materials during periodic inspections and recorded on an inspection form
7. On-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage of petroleum products. Petroleum products will be stored in closed containers that are clearly labeled. Used oils will be disposed of properly.
8. Materials will be brought on site in quantities that limit or minimize the amount of on-site storage.
9. Paint containers will be tightly sealed and properly stored when not required for use. Excess paint, solvents, etc., will not be discharged to the storm sewer facilities but will be properly disposed of according to manufacturer's instructions, or state and local regulations.

Spill Response

A spill response kit will be onsite at all times. Used spill containment and absorbent materials will be properly contained, labeled, and disposed of in accordance with state and local regulations.

Spill Reporting

All reportable petroleum spills and hazardous materials spills within New York State must be reported to DEC hotline (1-800-457-7362) within 2 hours of discovery.

SITE SECURITY

Access to the site will be restricted. The existing 6-foot tall fence that surrounds the area will prevent unauthorized personnel from entering the site. A security firm will also be present at the site to monitor the area.

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