

# ONONDAGA LAKE CLEANUP PROGRESS



Department of  
Environmental  
Conservation

March 2016

Progress continues with the cleanup of Onondaga Lake, its tributaries, and surrounding sites located in Onondaga County, New York. Native plants, fish and wildlife are returning to the area. The lake is now supporting a range of recreational uses. Plans are in place for expanding lake access. The community conversation is shifting toward Onondaga Lake as a public asset.

## Onondaga Lake Bottom

### Dredging, Capping, Nitrate Addition/Monitored Natural Recovery, and Habitat Restoration

**Dredging.** Lake bottom dredging activities began in 2012 and were completed in November 2014. About 2.2 million cubic yards of material was removed from the lake bottom.

**Capping.** More than 450 acres of the lake bottom is being capped. As of March 2016, capping of the lake bottom was 93 percent complete. Nearly 2.6 million cubic yards of cap material has been placed in Onondaga Lake. The cap includes a new habitat layer for macroinvertebrates and fish. Capping will resume for the season when weather allows. Construction areas will continue to be clearly marked by buoys and public access to these areas is prohibited while work is underway. Capping is on schedule for completion in 2016.



**Cap Disturbance.** NYS Department of Environmental Conservation (DEC) and US Environmental Protection Agency (EPA) are closely monitoring the lake bottom cap disturbances that were observed in late 2012 and 2014, and are confident that the Onondaga Lake remedy remains effective. An engineering evaluation of these disturbances has been completed. Approximately 7.25 acres of the cap was impacted, which represents approximately 1.7% of the total area to be capped. In-lake monitoring of water quality (turbidity) did not detect any impacts related to these events. The lake bottom slope and the properties of the soft sediments that were capped are factors that contributed to the cap disturbances. The disturbances impacted sediments in the deep water portion of the lake where an additional 22 acres of sediment will be capped, mostly with a thin layer cap consistent with other deep lake areas as specified in the remedy. Adjustments in the cap design for the disturbance areas, and a few other relatively small areas where soft sediments are present, are being made and implemented throughout the 2016 construction season. To ensure the cap remains protective, maintenance as needed and monitoring of the cap and water quality continues to be conducted and will persist for many years after the remedy is completed. It should also be noted that in the EPA five-year review (discussed below), which was completed in September 2015 and included a discussion of the cap disturbances and other soft sediment areas, EPA concluded that: "There is no new information that calls into question the protectiveness of the remedy."

**Nitrate Addition/Monitored Natural Recovery.** The addition of diluted calcium nitrate solution in the deep water areas of the lake began in 2012 and is ongoing. The solution effectively inhibits the production of methylmercury, the most toxic form of mercury to fish and biota. Monitoring results, including mercury levels in surface sediment and settling sediments, and annual sedimentation rates, indicate that natural recovery of the deep lake area is occurring faster than previously predicted.

#### KEY POINTS

**Onondaga Lake is Rebounding.** Progress in the lake and watershed continues:

- Many projects have reached or are nearing completion
  - State and federal monitoring and oversight continues
  - Cleanup efforts remain protective of public health and the environment
- Native species are returning
- Public access and recreation are increasing

**Habitat Restoration.** Restoration of Onondaga Lake's shoreline and tributaries includes improvements at Geddes Brook, Nine Mile Creek, Harbor Brook, and along portions of the western shoreline. The plan includes restoration of approximately 87 acres of wetlands. To date, approximately 50 acres of wetlands have been restored with more than 400,000 native plants, trees and shrubs. Habitat restoration is on schedule for completion in 2017.

**Sediment Consolidation Area.** The Sediment Consolidation Area (SCA), located on Wastedbed 13 in the Town of Camillus, is where material removed from the lake is being managed and contained. The SCA is being covered and the initial leveling layer for the cover material is substantially complete. A design for the final layer is currently being reviewed by DEC. The placement of the final layer is scheduled to be undertaken and completed in 2016.

## Health and Safety

**Air Monitoring.** DEC, NYS Department of Health and EPA continue to carefully evaluate air monitoring data for compliance with site-specific short-term and long-term standards. The monitoring system may be assessed periodically to determine if short-term air monitoring can be reduced.

- **Short-term Monitoring.** Data has been consistently below site-specific compliance requirements at the real-time air monitoring stations located around the perimeter of the SCA site.
- **Long-term Monitoring.** Chemical monitoring data is also collected at the SCA all year long. All long-term air quality criteria were below annual site-specific standards.
- **For More Information.** Air monitoring data is available at [www.lakecleanup.com/community-health-safety/air-monitoring](http://www.lakecleanup.com/community-health-safety/air-monitoring).

**EPA Five-Year Review.** The purpose of the five-year review is to ensure that implemented cleanup remedies at Superfund sites function as intended and continue to be protective of human health and the environment. EPA released its first five-year review of the Onondaga Lake Bottom site in September 2015.

- **EPA concluded:**
  - Implementation of the cleanup remedy is progressing as expected;
  - The remedy is expected to be protective of human health and the environment upon completion; and
  - In the interim, remedial activities conducted to date are operating as intended to protect human health and the environment.
- **For more information.** The full five-year review report is available at <http://semspub.epa.gov/src/document/02/372861>.

## Onondaga Lake Watershed

### Restoring the Shoreline, Tributaries and Watershed

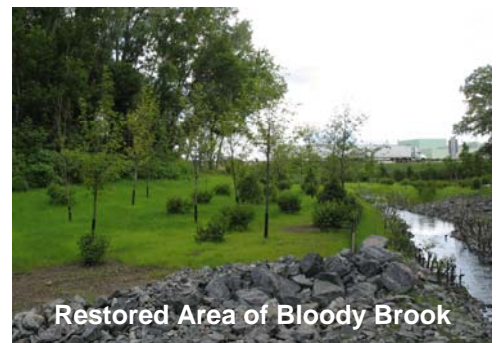
Additional progress has been made at various sites around the lake.

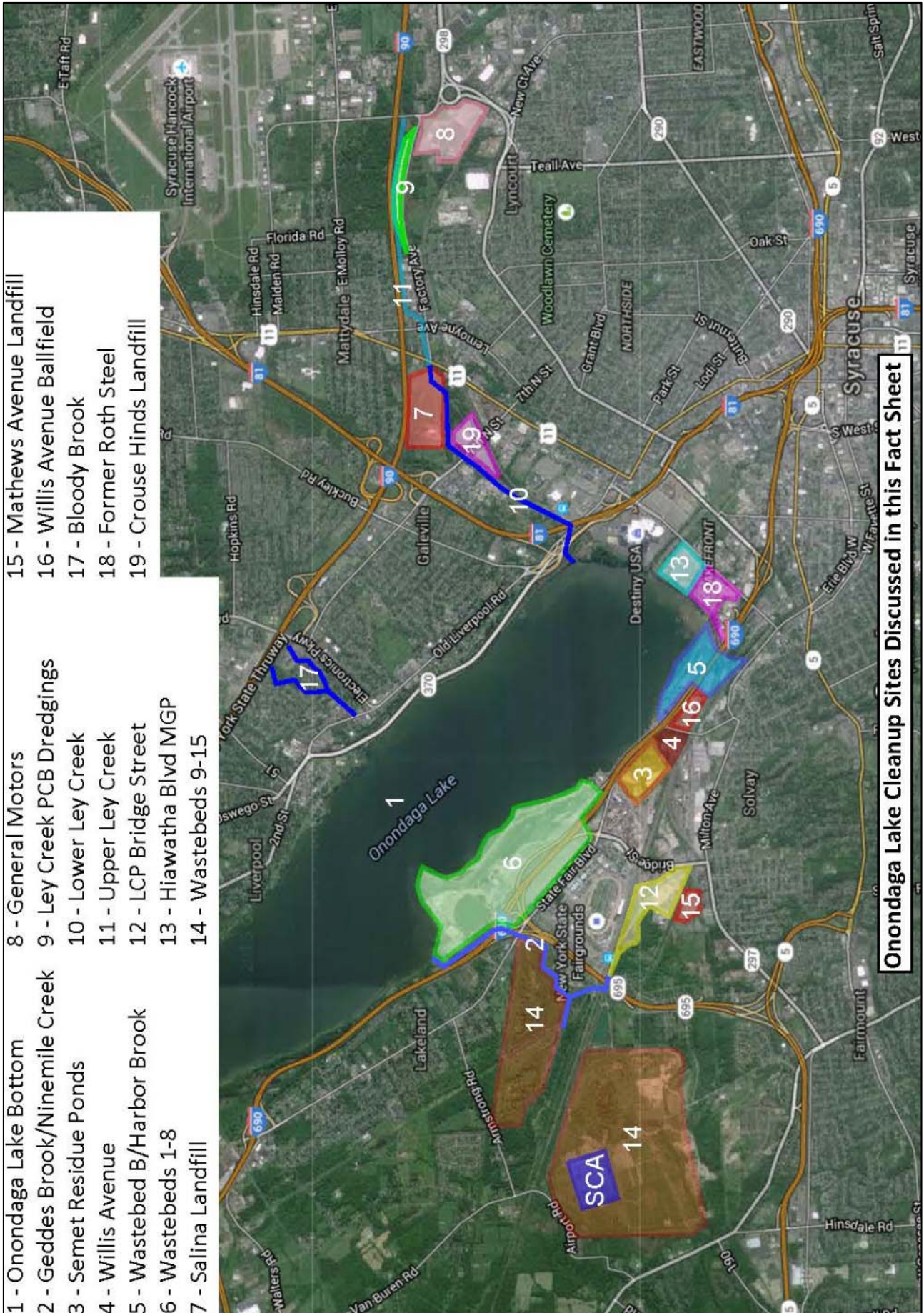
**Bloody Brook.** Lockheed Martin continues to implement the cleanup plan with DEC oversight. Excavation and offsite disposal of contaminated soil and sediment along with site restoration is expected to be completed in 2016.



**Crouse Hinds Landfill.** Capping of the landfills is underway and is anticipated to be completed in 2016.

**Geddes Brook.** The cleanup of Geddes Brook was completed in 2013. The project involved the removal of contaminated soils, sediments and invasive plants from the excavated areas, and planting of 50,000 native shrubs, plants, and trees on 17 acres of land. Honeywell, a responsible party for Geddes Brook as well as Onondaga Lake, and many of the lake upland sites, will continue maintenance and monitoring to ensure that the cleanup is meeting the objectives. To date, more than 65 varieties of fish, birds, including the pied-billed grebe, blue heron and bald eagle, and other wildlife have returned to the re-established wetlands. A video of the wetlands is available online at [www.lakecleanup.com/about-the-cleanup/cleanup-areas/geddes-brook-wetlands](http://www.lakecleanup.com/about-the-cleanup/cleanup-areas/geddes-brook-wetlands).





**General Motors-Inland Fisher Guide (Upper Ley Creek).** In March 2015, DEC and EPA issued the decision document for Operable Unit 2 of the site (Upper Ley Creek) outlining a cleanup plan. Design of the cleanup remedy will continue in 2016. Some remedial construction activities will commence in 2016.

**LCP Bridge Street.** The final cover system has been completed at the LCP Bridge Street Site. Vegetation has been planted and will continue to grow and establish in 2016. The site will continue to be monitored, reviewed and checked regularly by DEC, EPA and Honeywell. The latest five-year review was conducted in 2014. The site will continue to be reviewed by EPA every five years to evaluate the protectiveness of the remedy. In addition, a program for treatment of contaminated soil and groundwater in the area north of the West Flume is underway.

**Ley Creek PCB Dredgings.** The cleanup was completed in 2001. The latest five-year review was conducted in 2012. The site will continue to be reviewed by EPA every five years to evaluate the protectiveness of the remedy.

**Lower Ley Creek.** EPA is in ongoing negotiations with a group of potential responsible parties to design the cleanup selected in the September 2014 decision document issued by EPA.

**Matthews Avenue Landfill.** This 32.95 acre site located in the Village of Solvay was accepted into the NYSDEC Brownfield Cleanup Program. The site includes the 20-acre landfill, a landlocked portion of the former Erie Canal, and wetlands. A remedial plan has been submitted and is currently being evaluated by DEC.

**Nine Mile Creek.** The removal of contaminated soils and sediments from the creek channel and the construction of forested wetlands, the enhancement of stream conditions for fish spawning and migration, and the improvement of habitat along the lower portion of the creek was completed in 2014. DEC and Honeywell continue to monitor the site. A canoe launch will be reinstalled in 2016 to allow for public access.



**Former Roth Steel.** Onondaga County Industrial Development Agency purchased the property located on Hiawatha Boulevard along the lakeshore. A Brownfield Cleanup Program application was received and made available for public comment. The site has been accepted into the program and the next step is to conduct a remedial investigation.

**Salina Landfill.** Construction of the leachate/groundwater pre-treatment system was completed in April 2015. With DEC and EPA oversight, the Town of Salina will continue to maintain the landfill closure (completed in 2013) and leachate pre-treatment systems and periodically sample the groundwater to ensure that this final remedy is protective of human health and the environment. A five-year review of the implemented cleanup work to date is underway and is expected to be completed in 2016.

**Semet Residue Ponds.** A cleanup remedy for the Semet residue was selected in 2002. The selected cleanup method included, among other elements, excavation and processing of the residue into a raw material used in the manufacturing of driveway sealant. A change in market conditions led to reevaluation of this portion of the remedy and alternative technologies have been pilot tested to address the residue. The pilot studies will resume in 2016 when weather allows. The 2002 remedy also called for a lakeshore barrier wall/groundwater collection system and a Tributary 5A groundwater collection system. This work was completed in 2007 and 2013, respectively. EPA released its first five-year review of the Semet Residue Ponds site in September 2015. The review concluded that the remedy is expected to be protective upon completion.

**Hiawatha Boulevard Former Manufactured Gas Plant (MGP).** A cleanup remedy was selected for the site in 2010. The cleanup is being implemented by National Grid, the responsible party. Solidification of the contaminated soil was completed in 2012. A pilot study is underway that evaluates cleanup options for the enhanced biodegradation of contaminated groundwater component of the remedy.

**Wastebed B/Harbor Brook.** In 2015, Interim Remedial Measure activities were performed, which included placing a cover in some areas and enhancing an existing groundwater collection system to prevent impacts from high lake water levels. A Feasibility Study for the main site area will soon be submitted by Honeywell, after which a proposed cleanup plan will be released for public review.

**Wastebeds 1-8.** A cleanup plan was issued in 2014. Remediation work began while the construction of the Lakeview Amphitheater was underway. Work on the rest of the site will continue in 2016. A feasibility study is under review that evaluates deep groundwater and Ditch A, a small tributary to Onondaga Lake.

Additional wetland restoration work continues along the shoreline and is scheduled to be completed in 2016. As of September 2015, approximately 20 acres have been completed on the entire Onondaga Lake shoreline, with approximately 65,000 plants installed and about 1,000 pounds of native seed applied.

Additionally, just over 3 miles of a groundwater collection system has been installed on the western shoreline (including collection systems installed at this site, as well as Semet Residue Ponds, Willis Avenue and Wastebed B/Harbor Brook sites). The systems collect contaminated groundwater so that it does not enter the lake and sends it to Honeywell's Willis Avenue Groundwater Treatment Plant for treatment.

**Wastebeds 9-15.** Several interim measures were completed in 2015 to improve stormwater discharges from the site. Their effectiveness will be evaluated during 2016 as a closure plan is developed for the entire Wastebed 9-15 site.

**Willis Avenue.** A draft feasibility study prepared by Honeywell has been reviewed. A revised document is expected in April 2016. The next step will be to issue a proposed cleanup plan for public comment.

**Willis Avenue Ballfield.** A remedial investigation/feasibility study is underway.

## Natural Resource Damage Assessment

Trustees, including DEC and the U.S. Fish and Wildlife Service, are working to assess injuries to natural resources as a result of the release of hazardous substances and to restore those injured resources. For more information and to suggest potential restoration projects visit [www.fws.gov/northeast/nyfo/ec/onondaga.htm](http://www.fws.gov/northeast/nyfo/ec/onondaga.htm).

## Wastewater and Stormwater Advancements

Wastewater and stormwater improvements are also contributing to a cleaner lake and watershed. Under the direction of DEC, Onondaga County continues to implement projects to improve the quality of water entering Onondaga Lake and its tributaries. Additional Metro upgrades are being designed. Combined Sewer Overflow capture rates and water quality improvements are on schedule. Installation of additional green roofs, porous parking areas and sidewalks, tree pits, rain gardens, wetlands and other green infrastructure techniques are helping to not only protect the environment, but also beautify the community. The award-winning Save the Rain program continues to serve as a national model. Fish sampling and water quality monitoring continue to document improvements. For more information, visit [Onondaga County Water Environment Protection](#) and [savetherain.us](http://savetherain.us).

## Recreation

### Expanding Lake Access

**Public Boat Launch and Visitor Center.** Design and construction of the launch are being funded by Honeywell as part of a previously negotiated Environmental Benefit Project. Plans include Americans with Disabilities Act-compliant accessible shoreline fishing access, a trailer boat launch, car top/kayak launch, and parking for approximately 30 vehicles with trailers and additional parking for cars only. The visitor center will be operated at the site on the west shore of Onondaga Lake at the end of Route 690 Exit 7 near the State Fairgrounds and maintained through a partnership between DEC and Onondaga County. Construction will commence after completion of the Honeywell remediation project, likely in 2017. The preliminary plans offer opportunity for further public input on the design and features of the site. The proposed designs are available online at [www.dec.ny.gov/outdoor/60782.html](http://www.dec.ny.gov/outdoor/60782.html) and comments can be made by emailing [Info.R7@dec.ny.gov](mailto:Info.R7@dec.ny.gov).

Restored Lake Shoreline





**Loop-the-Lake Trail Extension.** New York State will provide \$750,000 in funding to improve access to the new Lakeview Amphitheater from Onondaga Lake and the Loop-the-Lake Trail system. Onondaga County is designing plans to connect the current terminus of the west side trail near the State Fair parking lot to the boat launch site. Future plans include continuing the trail southward from the boat launch, eventually connecting to the City of Syracuse Creekwalk.

## Fishing

**Onondaga Lake Fishing Tournament.** To build upon increased recreational opportunities on the lake including the Lakeview Amphitheater, West Shore Trail and the proposed boat launch, Governor Cuomo announced intentions to conduct a catch and release fishing tournament on Onondaga Lake in 2016. The Governor’s announcement is available online at [www.governor.ny.gov/news/governor-cuomo-brings-capital-day-central-ny-announces-47-point-plan-advance-region](http://www.governor.ny.gov/news/governor-cuomo-brings-capital-day-central-ny-announces-47-point-plan-advance-region).

## For More Information

**To Learn More.** Project updates will continue to be available via DEC’s *Onondaga Lake News* email list. To sign up, visit [www.dec.ny.gov/chemical/52545.html](http://www.dec.ny.gov/chemical/52545.html). Questions about progress in and around Onondaga Lake can be directed to [Info.R7@dec.ny.gov](mailto:Info.R7@dec.ny.gov) or call (315) 426-7400 or (518) 402-9676. All project documents are available for review at DEC Central Office and Region 7 Headquarters. Select documents are also available at the following locations and online at [www.dec.ny.gov/chemical/37558.html](http://www.dec.ny.gov/chemical/37558.html). New York State Department of Health’s Advice on Eating the Fish You Catch is available at [www.health.ny.gov/environmental/outdoors/fish/health\\_advisories/](http://www.health.ny.gov/environmental/outdoors/fish/health_advisories/).

Location	Address	Phone
Atlantic States Legal Foundation*	658 West Onondaga Street, Syracuse, NY 13204	(315) 475-1170
Camillus Town Hall	4600 West Genesee Street, Room 100, Syracuse, NY 13219	(315) 488-1234
Moon Library	SUNY ESF, 1 Forestry Drive, Syracuse, NY 13210	(315) 470-6712
NYSDEC Central Office*	625 Broadway, Albany, NY 12233	(518) 402-9676
NYSDEC Region 7*	615 Erie Boulevard West, Syracuse, NY 13204	(315) 426-7400
Onondaga County Central Public Library	The Galleries, 447 South Salina Street, Syracuse, NY 13202	(315) 435-1800
Solvay Public Library	615 Woods Road, Solvay, NY 13209	(315) 468-2441

\* Please call for an appointment