



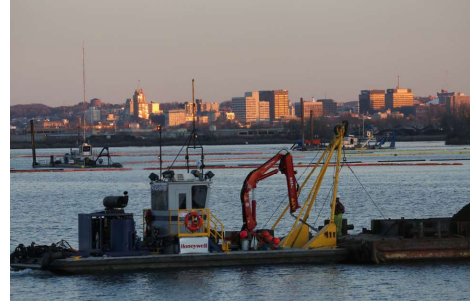
## Success Result of Focused Execution of Carefully Designed Project Plan

- ✓ Seven years of design, piloting, and engineering
- ✓ Investments in team building, health & safety and emergency response planning, community engagement, and contractor dialogue
- ✓ Strong design team of national and local experts, the best in the field, who were motivated to work as a team
- ✓ Talent, creativity, and dedication of local universities, engineers, suppliers, and craft labor
- ✓ On-site regulatory presence supported timely decision-making
- ✓ Commitment to continually improve
- ✓ Dedicated DEC/EPA oversight personnel



## Dredging of Onondaga Lake Completed Year Ahead of Schedule; Capping and Habitat Restoration to be Finished in 2016

Honeywell has finished the dredging of Onondaga Lake under the supervision of the New York State Department of Environmental Conservation (DEC) and the U.S. Environmental Protection Agency (EPA), a year ahead of schedule.



Dredging activities began in July 2012. About 2.2 million cubic yards of material was removed from the bottom of the lake using hydraulic dredges, which resulted in less truck traffic, emissions, and noise.

Upon completion of the remedy, it is anticipated that the use of B20 biodiesel fuel, green electric booster pumps, and hydraulic dredging will have helped reduce greenhouse gas emissions by the equivalent of removing 10,500 cars from the highway for one year. Solar panels provide electric power for Honeywell's Pump Station in Camillus and 100 percent renewable power for air monitoring equipment.

## Lake Dredging Designed to Protect Health and Safety; Safety Award Presented in 2014



The lake material was transported through a double-walled pipe through nonresidential areas to a lined consolidation area, where it was pumped into geotextile tubes for drying and safe isolation long-term. As a safety measure, the material traveled through a 16-inch pipe, which was inside a 22-inch pipe that served as a secondary containment.

The largest of the three dredges, called the Marlin, was nearly 40 feet by 104 feet. All of the dredges had state-of-the-art electronic systems, including a global positioning system (GPS), computerized tracking software, and automated control systems.

At every stage of the project an experienced team of engineers, risk managers, construction managers, and quality control professionals incorporated health and safety into all aspects of the project. A Community Health and Safety Plan was reviewed by the New York State Department of Health and approved by DEC, and there was a contingency response plan in the unlikely event of an incident. In addition, measures were implemented to eliminate or minimize potential risks to boaters.

The Western Dredging Association (WEDA) awarded the Onondaga Lake cleanup team the WEDA Annual Safety Award for its outstanding safety record and performance. The award covered more than 874,000 hours of work over two years.

## Water Quality Best in Years

*"Upstate Freshwater Institute has been studying Onondaga Lake for more than 30 years. Implementation of state-of-the-art wastewater treatment by Onondaga County and Honeywell's ongoing lake cleanup have gone a long way to enhance water quality in Onondaga Lake. The improvement is truly remarkable. Onondaga Lake is experiencing a renaissance that few thought possible,"*  
—Steven Effler, Ph.D., Chief Executive Officer and Director of Research





## Capping and Habitat Restoration Continue Through December (Weather Permitting); Scheduled to be Completed in 2016



Capping and habitat restoration will continue through 2015 and be completed in 2016:

- More than 450 acres will be capped, providing a new habitat layer for the lake bottom
- Significant progress already has been achieved with 37 acres of new or enhanced wetlands in the Onondaga Lake Watershed providing a home for more than 110 wildlife species
- Geddes Brook and Nine Mile Creek, two key tributaries of the lake, have now been restored

## SUNY College of Environmental Science and Forestry and Audubon to Provide Input on Grass/Native Vegetation for Consolidation Area



Rendering of grass and native vegetation

Honeywell is working in cooperation with local environmental and wildlife stakeholders to explore innovative ways to enhance the traditional vegetated landfill cover. Experts at SUNY-ESF and Audubon are providing critical input on selection of native grasses and vegetation as well as best management practices to foster sustainability.

The approximately 50 acres could link to other habitat restoration areas in the Onondaga Lake Watershed, maximizing habitat conditions for birds and other wildlife. This work is scheduled to begin in 2015.

Grasslands with native vegetation offer several advantages. Key features could include:

- Providing critical habitat for songbirds, shorebirds, waterfowl, and a variety of mammals
- Increasing biodiversity
- Reducing greenhouse gases
- Creating sustainable conditions to minimize need for regular mowing
- Reducing need for fertilizers or pesticides

The grassland could work in combination with the surrounding shrub willows and inland salt marsh conservation areas. About 750,000 willows are growing on nearly 125 acres. More than 100 native salt marsh species are thriving on 10 nearby acres.

Plantings of the vegetative cover will begin as soon as the cover system is in place.

## Next Steps

- ✓ Dredges will be dismantled along the shoreline (about three weeks)
- ✓ Pipeline will be dismantled and sent to a recycling facility
- ✓ Other equipment / lake curtains will be removed over the winter / spring
- ✓ Processing area at consolidation area will be dismantled

## Meeting DEC Requirements on Closing Area That Holds Material Removed from the Lake

- ✓ Honeywell is filing detailed designs to “close” the consolidation area this fall. Construction is scheduled to begin in 2015 and should be completed in 2016
- ✓ A high-strength liner will be used as a component of the cover system to permanently encapsulate the geotextile tubes



*“Water quality is the best in 100 years and more than 110 species of fish, birds, and mammals have returned to restored wetlands. Hundreds of Central New Yorkers are working on the project, and nearly 500 more have become environmental stewards helping to restore the watershed.”*

*“The completion of dredging is a significant milestone in the restoration of one of Central New York’s most valuable resources. The community’s pride and passion has helped fuel this progress and is being rewarded as the lake will be a healthy, sustainable asset for generations to come.”*

— John McAuliffe, Honeywell Syracuse Program Director