



Dear Interested Citizen:

This fact sheet provides you with information on the Onondaga Lake Capping and Dredge Area Final Design for the Onondaga Lake Bottom Subsite of the Onondaga Lake Superfund Site. If you have any questions, comments or would like more information about this project, please contact:

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Project Manager

NYSDEC, 625 Broadway, 12th Floor
Albany, New York 12233-7016
(518) 402-9676
tjlarson@gw.dec.state.ny.us

With respect to citizen participation inquiries, please contact:

Ms. Diane Carlton or
Ms. Stephanie Harrington
Citizen Participation Specialists
NYSDEC, 615 Erie Boulevard West
Syracuse, New York 13204-2400
(315) 426-7403
reg7info@gw.dec.state.ny.us

For project-related health questions, contact the New York State Department of Health (NYSDOH):

Mr. Mark Sergott
Project Manager
NYSDOH, 547 River Street
Troy, New York 12180-2216
(518) 402-7860 or
(800) 458-1158 (option 6)
beei@health.state.ny.us

New York State Department of Environmental Conservation **FACT SHEET**

ONONDAGA LAKE CAPPING, DREDGING, HABITAT AND PROFUNDAL ZONE (SEDIMENT MANAGEMENT UNIT 8) DESIGN HAS BEEN FINALIZED

PROJECT ENTERING DREDGING PHASE

**Onondaga Lake Bottom Site (#7-34-030)
Onondaga County - June 2012**

Introduction

The Onondaga Lake Capping, Dredging, Habitat and Profundal Zone (Sediment Management Area 8) Final Design (dated March 2012) has been submitted by Honeywell and approved by the New York State Department of Environmental Conservation (NYSDEC). This document provides final design information on the capping and dredging components of the Onondaga Lake remedy, as well as the remedy that will be implemented in the profundal (deep water) portion of the lake. The design is available for review in the locations listed on page 4 and will soon be available online at www.dec.ny.gov/chemical/37558.html.

Capping, Dredging, Habitat and Profundal Zone (Sediment Management Unit 8) Final Design for the Onondaga Lake Bottom Site

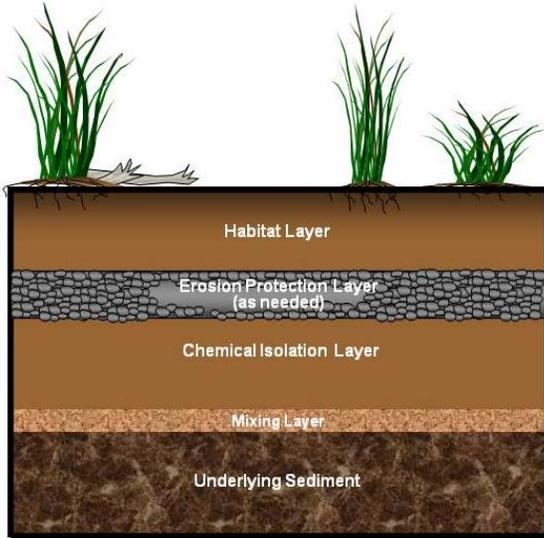
Onondaga Lake Design Overview

The Onondaga Lake remediation plan was separated into multiple designs in order to advance critical design components so that dredging and capping activities can begin as scheduled in 2012.

The final design addresses the capping and dredging parts of the Onondaga Lake Bottom remedy, as well as those activities that will be completed in the deep water area of the lake. The design describes the areas of the lake that will be dredged and capped, the methods that will be used, the components of the cap, and the factors that were evaluated when completing the final design.

Dredging

Dredging is a major component of the lake remedy. The use of hydraulic dredging and transportation through a pipeline was selected as the most suitable method for sediment removal. Hydraulic dredging eliminates various pathways of potential odors and air emissions associated with mechanical dredging (such as removal of sediments up through the water column, additional handling facilities, and transportation via trucks or rail needed for mechanical dredging).



General Cap Schematic

Capping and Habitat Restoration

Habitat considerations have been integrated into the Onondaga Lake Bottom capping and dredging design.

The cap will be made up of several layers dedicated to various purposes. The primary layers will consist of a habitat layer, an erosion protection layer and a chemical isolation layer.

The cap will provide long-term isolation of underlying sediments. It will be resistant to erosive forces such as ice, wind and wave-generated currents, and inflows from tributaries. The cap will also provide a suitable habitat for plants, animals and fish.

Sediment caps are a proven technology and have been implemented at numerous sediment remediation sites. During fall 2011, cap placement was successfully demonstrated in the field using the same equipment that will be employed in full-scale operations.

The cap will:

- restore and enhance aquatic habitat in the lake,
- isolate the contaminated sediment from the aquatic environment, and
- stabilize contaminated sediment, preventing resuspension and transport of contaminants to the deep area and other areas of the lake.

The cap has been designed and is being constructed in an effort to provide long-term protection to human health and the environment, including plants and fish.

A long-term monitoring and maintenance plan will be developed and implemented to ensure that the cap performs as intended.

Profundal Zone

The design also includes a remedy for the deeper portions of the lake where water depths exceed 30 feet. In a portion of this area, a thin-layer cap will be applied. In addition, a three-year pilot study is currently evaluating



In fall 2011, cap placement methods were successfully demonstrated on the lake.

the addition of nitrate as a method of reducing methylmercury generation in the deeper waters of the lake. Methylmercury (the form of mercury that bioaccumulates) concentrates in fish and potentially poses a risk to wildlife and humans who consume fish. A final decision on the method to control mercury methylation will follow after completion of the pilot test. Surface sediment mercury concentrations in the profundal zone have been declining. Based on these reductions and modeling results, it is anticipated that design and performance criteria for mercury in sediments in the deep waters of the lake will be met via natural processes (e.g., deposition of cleaner sediments onto impacted sediments). If, however, performance criteria are not met within an acceptable timeframe, contingency measures (e.g., thin-layer capping) would be implemented.

Dredge Criteria and Volumes

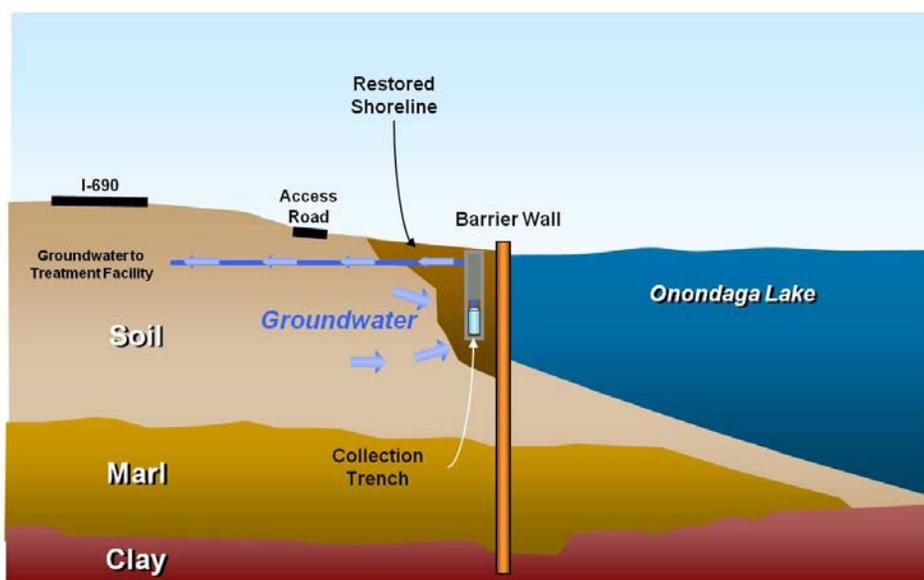
Dredging is a major component of the remedy and is scheduled to begin in the summer of 2012. Just as the cap design was influenced by habitat requirements, the dredging plans were also influenced by the need for various water depths in different parts of the lake in order to achieve specific habitat-based goals.

The lake remedy, which was specified in the 2005 Record of Decision, included dredging up to 2.65 million cubic yards of sediment. Additional data collected in recent years and more detailed design evaluations have supported revising the original estimated dredging quantities to a more accurate estimate of about 2 million cubic yards of sediment.

A primary factor in the lower volume estimate is the installation of the Willis-Semet IRM underground barrier wall, completed in 2009. Based on data and stability evaluations, the decision was made to move the barrier wall offshore. This placement helped ensure the stability of I-690 and allowed some of the contaminated material, including non-aqueous phase liquids (NAPLs) which are essentially pure liquid wastes, to be contained behind the wall. The NAPLs are being collected via recovery wells for offsite disposal.



The 16-inch hydraulic dredge pictured above is the primary equipment to be used for the dredging component of the Onondaga Lake remedy.



Schematic of Underground Barrier Wall

Next Steps / Public Participation

Full-scale capping and dredging operations are scheduled to begin in summer 2012. **The NYSDEC will hold a public informational meeting on Thursday, June 14, 2012, at the New York State Fairgrounds in the Youth Building.** Please note this new location. The purpose of the meeting is to provide the community with the details of the dredging and capping project now that it is moving into the implementation phase. An open house will be held from 5-6 p.m. for the public to interact one-on-one with project staff. The meeting, consisting of a presentation followed by Q & A, will begin at 6 p.m.

Project Contact List

NYSDEC is transitioning to electronic distribution of remediation project information. To begin receiving Onondaga Lake cleanup information electronically, please sign up for the *Onondaga Lake News* email list by visiting the NYSDEC website, www.dec.ny.gov/chemical/52545.html.

Location of Reports and Information

Project documents are available for review on the NYSDEC website at www.dec.ny.gov/chemical/37558.html and at the following locations.

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