



A clean lake reflects well on all of us.

VOLUME III, ISSUE 1

WINTER 2008

AN UPDATE FROM THE ONONDAGA LAKE PARTNERSHIP

THE FUTURE OF ONONDAGA LAKE

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OLP ANNUAL PROGRESS MEETING REFLECTS ACCOMPLISHMENTS, DISCUSSES FUTURE.



OLP Executive Committee from left to right [top] Seth Ausubel, U.S. Environmental Protection Agency; Charles Silver, U.S. Attorney General's Office; Nicholas J. Pirro, Onondaga County Executive; [bottom] Ken Lynch, N.Y. State Department of Environmental Conservation, LTC John S. Hurley, U.S. Army Corps of Engineers, Buffalo District; and Bill Owens, City of Syracuse.

“Onondaga Lake: Everyone’s Lake, Everyone’s Future” was the theme of the Onondaga Lake Partnership (OLP) seventh Annual Progress Meeting. The meeting was held Monday, October 23, in the Tiffany Ballroom at the Genesee Grand Hotel in Syracuse. The event was moderated by Dan Cummings of News Channel 9, WSYR-TV and was attended by approximately 70 people including representatives from Congressman James T. Walsh and State Senator John A. DeFrancisco’s offices.

The evening provided an opportunity for OLP to discuss the accomplishments of completed and ongoing projects, as well as proposed activities to better the lake.

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THE ONONDAGA LAKE PARTNERSHIP (OLP)

Promotes cooperation among federal, state, and local governments, and other involved parties in the management of the environmental issues of Onondaga Lake and the Onondaga Lake watershed in the Syracuse, New York area.

TOP TEN FOR BASS FISHING!

The North American Fishing Club recently named Onondaga Lake one of the United States’ top ten bass fishing destinations. Anglers recommend jibs, spinnerbaits and live golden shiners for fishing Onondaga Lake. New York State Department of Environmental Conservation identified Willow Bay, near the mouth of Seneca River, as a great location to catch smallmouth bass and said the “smallmouth action on the lake will wear out your arm.” ■

SIXTH ANNUAL CREEK CLEAN-UP TAKES IN HUGE HAUL

Amy Samuels, Cornell Cooperative Extension

105 VOLUNTEERS GET THEIR HANDS DIRTY TO CLEAN UP CREEK



Unloading trash from the canoes is the last stop for Onondaga Creek Clean-up volunteers.

The Onondaga Creek Clean-up gets better every year, and 2007 was no exception. Water levels were at seemingly record lows, and volunteer numbers and morale were at seemingly record highs. One hundred and five people got wet and dirty as they hauled over three dumpster loads of trash out of the creek on two consecutive Saturdays in September. Trash was divided into three main categories descriptively named: “ancient history”, “cheap businesses”, and “mean kids”. Trash in the ancient history category includes poles, signs, shopping carts and other objects that have been in the creek for years, if not decades. Cheap business trash is

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Meeting participants discuss clean up efforts on Onondaga Lake.

Meeting attendees participated in one of three subgroup discussions with OLP members and exhibitors to discuss key issues and planned activities to continue the progress of cleaning Onondaga Lake. The group discussion topics included Hazardous Waste Remediation, Wastewater Improvements and Preventative Measures, and Recreation and Natural Resources.

A room full of interested community members engaged in conversation with exhibitors about park development and recreation activities available on Onondaga Lake including fishing and boating.

The key message of the evening was "Onondaga Lake is getting better!" Federal, state and local support enable remediation and development projects to continue. In 2007 over \$4 million was available for OLP activities including \$3,847,500 in the U.S. Army Corps of Engineers (USACE) Construction General Program to support lake improvement projects and \$165,000 in U.S. Environmental Protection Agency (USEPA) funds to support water quality improvements. In addition, the OLP continues to offer annual Mini-Grants and Education Fund Programs to local residents and schools for projects and field trips to educate students and the community about Onondaga Lake. The Onondaga Lake Partnership Speakers Bureau provides the opportunity for a member of the OLP to attend local/civic meetings, conferences, and other events to present information on a wide range of topics related to Onondaga Lake and its watershed. ■

Visit the OLP website at www.onlakepartners.org and sign up for our electronic list service to receive notice of important OLP events.

WORLD WATER MONITORING DAY BRINGS STUDENTS FOR DAY OF DISCOVERY

LOCAL STUDENTS BECOME WATER ECOLOGISTS FOR A DAY



Mike Spada, UFI, shows freshly collected macroinvertebrates to students from Joe Boronczyk's biology class at Corcoran High School. Photo by Ann Saltman (CNYRPDB).

For the sixth consecutive year, local experts on the environment took time out of their work days to get students from area schools involved in activities associated with World Water Monitoring Day. Held October 3 and 4 on Onondaga Creek at Kelley Brothers Park in Syracuse, volunteers from the U.S. Geological Survey (USGS), NYS Department of Environmental Conservation (NYSDEC), Central New York Regional Planning and Development Board (CNYRPDB), Onondaga County Department of Health, Upstate Freshwater Institute (UFI), Onondaga Environmental Institute, and SUNY Environmental Science and Forestry (ESF) provided students with hands-on experiences including stream-side demonstrations of benthic macroinvertebrate and fish ecology, and in-stream water quality sampling.

Fish and macroinvertebrate experts helped students identify the relationship between aquatic habitat and water quality sample results [temperature, pH, dissolved oxygen (DO), and turbidity] collected by the students. USGS personnel led the students through water quality sampling procedures and showed students the variability that can occur in different parts of a stream. The hands-on activities were supplemented with a module of Onondaga Lake watershed maps to further discuss factors affecting water quality throughout the watershed.

As students prepared to walk through the water dressed in hip boots and waders, Bill Kappel from USGS offered to

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WORLD MONITORING DAY

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make the 'outfits' available for their proms. Once the laughter subsided and the students were in the water, many commented on the pressure felt on their legs as they waded through the stream.

A total of 110 students from four area schools participated in World Water Monitoring Day including Solvay Middle School, and Corcoran, Jamesville-Dewitt, and East Syracuse Minoa High Schools. Teachers from the schools were provided with water quality and environmental educational materials that were generously donated by the US Environmental Protection Agency (USEPA), NYSDEC, and the Onondaga County Department of Water Environment Protection.

The Onondaga Lake Partnership has sponsored World Water Monitoring Day for middle and high school students each fall since 2002. Funding provided by USEPA supports the annual event including water testing supplies and bus transportation for all classes that attend. This has allowed any school, regardless of district resources, to participate in this intensive and fun educational event. ■

CREEK CLEAN-UP

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seemingly generated by those in the construction, restaurant, and auto repair trades that illegally dump items such as paint, cooking oil, and tires instead of paying for proper disposal. Mean kid trash includes the many bikes that mean kids take from other kids and dump in the creek.

How to stop all the dumping in the creek is beyond the scope of this article, but there are three positive outcomes of the creek clean-up. First, incriminating evidence found with some of the illegally dumped "cheap business trash" was given to the proper authorities who are actively pursuing the cases. Second, thanks to the hundreds of volunteers who have worked on the creek clean-up the past three years, all the "ancient trash" has been removed from the creek between Ballantyne and South Avenues. Third, plans are underway for the Onondaga Earth Corps to build a "trash to treasures" sculpture from debris collected at the clean-up. The youth from the Earth Corps hope to use the sculpture to promote stewardship of the creek. For more information about creek clean-up or how to get your organization involved, please contact Cornell Cooperative Extension at ams71@cornell.edu ■

SYRACUSE—WHEN THAT SINKING FEELING OCCURS.....

Syracuse and Onondaga County have weathered climatic, hydrologic, and geologic natural phenomena. In addition, unusual events of land-surface subsidence and sinkhole development have been documented over the last several hundred years. Population growth and urban development increases the possibility of land subsidence becoming a more common problem.

While most bedrock in the region is shale, carbonate (limestone and dolomite) bedrock exists and is subject to natural dissolution processes that slowly dissolve rock, grain by grain. In carbonate bedrock, water flows through cracks and fractures and slowly dissolves the rock. When the flow is concentrated and occurs over a long period of time (centuries), the landscape is altered and called "karst" topography. In the Syracuse area, the karst landscape is rather young (around 10,000 years) and just beginning to develop. The young karst development alters the landscape causing sinkholes, disappearing streams, springs, and a complex groundwater flow system in the carbonate rock.

The process of dissolution involves capturing carbon dioxide from the atmosphere and soil. As precipitation infiltrates (flows through) soil and becomes ground water, it absorbs carbon dioxide to form a weak carbonic-acid solution that can dissolve carbonate rock. As rock dissolves, it forms voids that allow carbon dioxide-enriched water to enter and dissolve additional bedrock. During the dissolution process, soil and water above the bedrock surface can also enter the karst features, sometimes creating a void in the soil. When enough soil is removed, a sinkhole develops at land surface. The karst process can be enhanced when underground infrastructure, including storm and sanitary sewers, drinking water pipelines, and fire hydrant connections, leak into the groundwater flow system.

In addition to carbonate dissolution, some shale units contain seams and pockets of gypsum (calcium sulfate). The gypsum is also prone to dissolution and can lead to subsurface collapse and ultimately result in land-surface subsidence. Residents that live near or on valley walls or surrounding hilltops of Onondaga and Ninemile Valleys may experience land-surface subsidence. However, thick unconsolidated sand, gravel, silt, and clay deposits that create the valley floor prevent subsidence from occurring there.

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EXECUTIVE COMMITTEE MEMBERS

Chaired by U.S. Army Corps of Engineers

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- U.S. Environmental Protection Agency
- New York State Department of Environmental Conservation
- New York State Attorney General
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- New York State Canal Corporation
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Representatives of Executive Committee agencies, as well as:

- Izaak Walton League
- Atlantic States Legal Foundation
- League of Women Voters
- Cornell Cooperative Extension of Onondaga County
- State University of New York — College of Environmental Science & Forestry
- Onondaga Historical Association

The Executive Committee establishes and maintains the mission of the partnership and the lake improvement effort.

The Project Committee serves as the partnership technical center of expertise on specific projects and develops and maintains the funding strategy for projects.

The Outreach Committee works to enhance public knowledge and understanding of the partnership and the status of the lake improvement effort.

YOU CAN CONTACT THE ONONDAGA LAKE PARTNERSHIP AT:

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FOR MORE INFORMATION, VISIT THE ONONDAGA LAKE PARTNERSHIP WEB SITE AT WWW.ONLAKEPARTNERS.ORG

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Other activities beyond natural or man-made groundwater flow enhancements can cause land-surface subsidence. During the last several hundred years of urban development, basements have been backfilled to build new structures. Sometimes the fill slowly compacts and leads to surface subsidence.

After the advent of fire departments in the 1800's, yet before the development of the Syracuse public water-supply system, many businesses dug large holes lined with stone to create cisterns. Cisterns were usually adjacent to large buildings and along roadways, and were used as water supply to extinguish fires. Many cisterns still exist in the city but have long been forgotten. Reference maps from the mid-to-late 1800's may identify cistern locations. This can assist emergency workers when a building collapse causes a small sinkhole; if the cause was a cistern, truck loads of gravel can remedy the problem.

Also located underground are factory storage cellars used over a century ago to chill beer, milk, and food items by natural ground temperature of about 50°F or with ice from Onondaga Lake. Tunnels were built between buildings or to connect buildings to old canals below busy streets. Many of these man-made structures have been forgotten or are unknown until a modern-day construction project digs into an unknown structure causing a collapse.

Natural or man-made, the rock under our feet does not always mean we have a firm foundation to stand or build upon in the Salt City! ■

This newsletter is intended to provide general information to the public regarding the Onondaga Lake basin and activities related to the cleanup and restoration thereof. Approval for publication by the members of the OLP does not signify adoption or approval for purposes of regulatory, enforcement or other legal actions, of the factual, scientific, or legal assertions, characterizations or conclusions contained therein.

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