

**Onondaga County Parks Department**  
**Onondaga Lake Special Event Water Quality Protocol**  
4/28/09

The Onondaga County Parks Department has been asked to allow use of park facilities for a limited number of events on Onondaga Lake. These events are of a type that involve only limited contact with the lake waters, resulting in minimal potential for ingestion of water. The following water quality protocol will be followed for these events taking place on Onondaga Lake.

- General information on Onondaga Lake water quality will be posted on the Onondaga County Parks Department and Syracuse Convention and Visitor's Bureau websites: <http://www.onondagacountyparks.com> and <http://www.visitsyracuse.org/>
- Event sponsors will be notified that event announcement documents and pre-event notices provided to potential participants should include specific language on Onondaga Lake water quality and the County Parks Department's notification protocol in the event circumstances warrant event day notification (this document, the attached Onondaga Lake background document and the attached event day notification protocol).
- The County Parks Department in the days leading up to the event will consult with the involved County agencies (County Health Department and the Department of Water Environment Protection (WEP), and the Office of Environment) to evaluate lake water quality conditions. This evaluation will include:
  - Pre-event sampling by WEP beyond the existing sampling program (if warranted)
  - Review of precipitation patterns prior to the event
  - Review of any CSO's or SSO's that may have occurred and their location
- Based on the information available, a determination will be made by the involved agencies as to whether event participants should be given a more specific advisory on water contact (generic draft attached). Such an advisory would be distributed to event participants by the County Parks Department at the time of the event (distribution protocol attached).
- In the event of extreme circumstances, such as a catastrophic storm or treatment plant failure, this protocol may be overridden by restrictive declarations made by public health or safety officials.

## ONONDAGA LAKE

### Background

Once classified as one of the most polluted lakes in America, Onondaga Lake is the cleanest it has been in one hundred years, which is increasing regional interest in on-water recreational activity.

### Recreational Status

Metropolitan Onondaga Lake is the centerpiece of the most popular park in Central New York and a haven for boating activity. Syracuse University's men's and women's crew teams, the expanding Onondaga Lake Park marina (96 slips in 2010). Salt City Bassmasters Fishing Club, and the sailing focused Onondaga Yacht Club are long time, regular users. The Syracuse Chargers Community Rowing Club and high school crew teams are emerging higher level users, and rowboat and kayak rentals are now offered by Onondaga County Parks. The top fishermen in the world competing in the 2007 Bassmaster Memorial raved about fishing and compared the water to lakes in Florida, and the North American Fishing Club is now touting the lake as one of the country's top ten hotspots for bass. \*

\* Fishing on Onondaga Lake is a recreational sport. Like many other bodies of water in New York State, there are specific health advisories that provide recommendations regarding consumption of fish caught in Onondaga Lake. These advisories are issued because fish can contain environmental contaminants such as mercury and PCBs for example, that may pose health concerns if consumed. The complete health advisory can be found at the following website: <http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm>

### Water Quality - Bacteria

**Bacteria levels in the northern end of Onondaga Lake are similar to other area lakes except following extreme rainfall events.**

Rain affects water quality in all lakes and rivers by carrying stormwater runoff into the surface waters. Such runoff often contains unwanted materials, such as sediment, nutrients and bacteria. Bacteria carried in runoff comes from a variety of sources including waste from wildlife, pets, agriculture sources, and, in the case of Onondaga Lake, combined sewer overflows (CSOs) which can contain both sanitary sewage and stormwater.

Bacteria levels in portions of Onondaga Lake typically increase after significant storm events, primarily in the southern end of the lake where most tributaries receiving CSOs are located. Bacteria levels in the northern end of the lake (in the Willow Bay area), while less impacted by rainfall events, may increase after significant storm events before returning to normal after several days. These occasional high bacteria levels are among the factors why swimming in the lake is not encouraged.

### Swimming in Onondaga Lake

Nearly all of the land surrounding Onondaga Lake is publicly owned. Swimming from shore is prohibited because of legal requirements that restrict swimming to a designated bathing beach, however no such beach presently exists on Onondaga Lake. There are no

regulations pertaining to boaters using the lake for recreational purposes including swimming, diving, water skiing or scuba diving. While the water quality in the northern part of Onondaga Lake is likely suitable for these activities in most areas most of the time, there are other factors that would lead the health department to recommend that the lake not be used for swimming.

The recommendation of the health department for all bodies of water is that swimming take place at regulated beach areas where there is qualified supervision, safety equipment, a designated bathing area with known bottom conditions and water clarity, protection from other recreational users such as boats and jet skis, and where water quality is being regularly monitored to assure that it meets bathing beach water quality standards.

#### Water Quality - Hazardous Substances

**There is no increased risk from hazardous substances associated with contact with Onondaga Lake surface water.**

Onondaga Lake is listed as a hazardous waste site because of industrial contaminants found in some of the sediments in the lake bottom. Most of the contaminated sediments are in the southern portion of the lake bottom or in the deeper bottom areas (up to 50-60 feet) in the middle of the lake.

The State Department of Environmental Conservation, the U.S. Environmental Protection Agency and Honeywell International have developed a plan to cleanup the contaminated sediments. In developing a plan to clean up contaminated lake bottom sediments, a Human Health Risk Assessment (HHRA) was performed. In simple terms, the HHRA found that the most significant exposure risk is from ingestion of contaminated fish, or from direct exposure to contaminated sediments in the southern end of the lake.

The findings of the HHRA can be found in the Record of Decision (the cleanup plan) at the following State Department of Environmental Conservation web site under "Summary of Site Risks":

([http://www.dec.ny.gov/docs/remediation\\_hudson\\_pdf/onondagalakerod.pdf](http://www.dec.ny.gov/docs/remediation_hudson_pdf/onondagalakerod.pdf))

## **Process for Notification of Increased Bacteria Levels to Event Promoters and Participants**

In the event the County Parks Department - through consultation with the County Health Department and Water Environmental Protection Department - is advised that recent heavy rainfall or other conditions may have caused increased bacteria levels in the lake, the Onondaga Lake Park Recreation Supervisor - or their designee - will meet with the event promoter as soon as possible, but in all cases prior to the beginning of the event. The purpose of this meeting will be to brief the event promoter on conditions and circumstances leading to the impending issuance of a written Advisory to event participants. Event sponsors always conduct briefings with event participants the day of the event prior to the start. The County Parks Department will utilize this opportunity to distribute a written Advisory to event participants and to answer questions. At this time all participants will be reminded to limit their on-water activity to the marked course in the northern section of the lake. Should conditions remain the same or similar for the second day of the event, this process will be repeated.

## **Sample Onondaga Lake Water Quality Advisory**

The Onondaga County Parks Department regularly consults with other county and state agencies that are involved in monitoring the water quality in Onondaga Lake. The Parks Department has been advised that the recent heavy rainfall that resulted in heavy runoff into Onondaga Lake may have caused increased bacteria levels in the lake. These increased bacteria levels typically occur in the southern part of the lake, however the potential also exists for elevated levels in the northern part of the lake where this event is taking place. It is our policy to advise event participants of water quality conditions that we become aware of so that they may be informed and take appropriate precautions. The standards for water quality that exist for recreational waters are based on ingestion of contaminated waters, which is the primary route of exposure to illness causing organisms. We have been advised that participants who take steps to avoid ingestion of lake waters can minimize any detrimental health effects. It is also advisable to remain in the general vicinity of the buoyed course, which historically has been less affected by bacteria after rainfall than areas further south in the lake.