

# 2014 OSWEGO COUNTY WATER CHESTNUT CONTROL PROGRAM

This report completed by  
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## ***Background***

The Oswego County Soil and Water Conservation District (District) has been the designated agency within Oswego County to control the highly exotic and invasive aquatic species of Water Chestnut (*Trapa natans*), primarily in the Oswego River.

For the past twenty-four years the District has hired a private contractor for mechanical harvesting; relied upon a neighboring District for mechanical harvesting; and even, with the assistance from Oswego County, owned and operated a mechanical harvester. Due to fiscal constraints from year to year and realizing that only one harvester was not keeping pace with the annual spread of Water chestnut, the District turned to chemical control for its management tool. Over time this measure has proven itself to be more inclusive and effective for controlling the majority of Water chestnut in the Oswego River.

Chemicals alone will not completely reduce nor eradicate Water chestnut. It takes the effort by many others to hand pull this invasive plant from our waters. With this added measure, Water chestnut control activities took place not only in the Oswego River, but also in the Salmon River, Sage Creek and Oneida Lake.

## **Chemical Control Program**

The chemical control program began early in 2014 through the creation of an RFP that required a selection of a certified contractor by the end of April. Once this award was made, an effort was then undertaken in completing and submitting an application to NYS Department of Environmental Conservation for a permit to utilize chemicals for controlling Water chestnut in the Oswego River. Letters of intent were sent out to all effected riparian property owners, announcing the proposed chemical treatment activity for their information and concerns. Nearly 200 letters were directly sent in 2014.

As the treatment time approached, the Water chestnut plants were late in germinating to the surface. This spring was cooler, cloudier and wetter than expected, especially after a very long, colder than normal winter season.



Oswego River/Trailer Park, north of  
Fulton, New York - August 11, 2010

Many of the smaller plots of Water chestnut hardly ever produced any plants; while other larger plots came up slowly but thickened as the weeks went by. The chemical treatment utilizing Clearcast® began on August 6th and ended on August 8th. As permit conditions required, water samples were taken after treatments and sent overnight for any chemical residual levels. Contractor came back latter part of August to finish spraying the 'green stripes' that were left behind from the initial pass of the airboat. Coverage and kill look very good at this time with the plants decimating and dying as expected.



Oswego River/Trailer Park, north of Fulton, New York - July 30, 2014

### **Hand Pulling Program**

*Salmon River:* On July 12th this agency coordinated the 3rd Salmon River/Port Ontario Water Chestnut Hand Pull Event. Event was held in the morning at the Selkirk Shores State Park's Pine Grove boat launch site. Nearly thirty people assisted with either actual hand pulling, water access and/or educational opportunity. [see separate Project Report]



Volunteers navigating carefully while pulling water chestnuts

*Oswego River:* On August 2nd under the leadership of Dick Drosse, twenty-five volunteers pulled near and around the historic Battle Island area in the Oswego River. [see the following report written by Dick Drosse]

*"Saturday turned out to be a beautiful day. Even with an above normal water level on the river, we collected a large quantity of water chestnuts. With 25 volunteers participating, conservatively the amount pulled, we estimate at approx. the equivalent of well over 50 trash bags of the WC. Some were not bagged and a canoe (Peter Bock) was used as a collection boat for those quantities. All were disposed of above the water line, at uninhabited Battle Island and similar, to naturally compost. It was great to have the Launch Stewards, Ashleigh, Rob and Jeremy helping with the pulling. They were very efficient and personable! We had Peter, Carl Salvagin and Dave Larribee, and three people visiting from Colorado."*

**Oneida Lake:** Various hand pull events took place the Big Bay area and into the creeks as well. Both groups, the Oneida Lake Association & the Salt City Bassmasters participated. The District hired an operator with a small airboat to assist with the hand pull effort. Many pounds of Water chestnuts were harvested from Oneida Lake. Also providing similar effort at the confluence of the lake and the Oneida River was the Onondaga North Rotary Club.

**Sage Creek:** Hand pulling of Water chestnut has been taking place for the past few years under the leadership of the Onondaga Audubon Society, along with a few local private property owners. A vigilant effort is still required at this site. [see the following report written by Maryanne Adams]



One of many boat loads taken out of Sage Creek



Tim Johnston (r), and George Spak dealing with water chestnut plants

### ***Water Chestnut Removed from Sage Creek***

by Maryanne Adams (as edited by John DeHollander)

*“Tim Johnston, a Derby Hill neighbor who lives on the other side of the marsh, has been working on ridding Sage Creek of water chestnut for the past three years. Tim found out about water chestnut being a problem when one of his friends on the Little Salmon River pointed them out to him in the summer of 2012. He knew of their devastation on the Oswego River from some of the articles published in the Post Standard and other local newspapers.*

*Tim told George Spak about his mission to get rid of the water chestnut in Sage Creek. We discussed giving Tim a helping hand at a Derby Hill meeting in mid-July. Soon after that, George and Dave Fitch joined Tim for a fun time in the creek harvesting heaps of the weed. Not wanting to miss a good time, Onondaga Audubon Society Board President Paul Richardson and Maryanne Adams joined Tim and George for another water chestnut pull at the end of July. Tim filled his canoe so high that it sank several inches and the others filled two more canoes. After pulling his canoe onto shore, Tim filled a cart with the harvested plants and used an ATV to bring them to a compost pile in the woods.*

*This is why we are glad that Tim took the initiative here. It is his third summer pulling water chestnut. He estimates that last summer he pulled roughly 25 - 30 cubic yards. This year*

*close to 15 cubic yard of plants have been cleared. Tim's son, Parker, also helped out by unloading many canoe loads of water chestnut over the past two years.*

*Following our second outing in July, Tim spent another night and a good part of the next Saturday pulling water chestnut plants in Sage Creek. He worked his way upstream and removed the invasive plants all the way to the gun club. He says that on Saturday he gathered the largest load of water chestnut he's ever gotten into a canoe. Thanks, Tim, for your hard work and for improving the quality of Sage Creek for all of us”.*

**Little Salmon River:** A noticeable population of water chestnut is present in this river stretch north of the Rt. 104B bridge crossing. Talked with local area businesses and handed out literature & fact sheets. This area needs to be hand pulled in 2015.

***Salmon River Estuary - Port Ontario Citizen Science / Hand Pull Event***  
**Saturday - July 12, 2014**

This event was co-sponsored by the SLELO PRISM and NY Sea Grant. Approximately thirty (30) volunteers participated in this event.

At 8:30AM, SLELO PRISM Coordinator Rob Williams began by conducting an educational session regarding invasive species control effort and how the SLELO organization operates. Rob discussed the need for citizen scientists to participate in early detection and rapid response efforts.

NY Sea Grant's Chief Launch Steward Brittney Rogers provided insight as to the role of launch stewards regarding invasive species control. Dick Drosse made a comment and request for others to assist in a hand pulling effort on the Oswego River in early August of this year. At approximately 9:15AM, John DeHollander instructed those that would be going out on the water for hand pulling. Locator maps were provided for each boat. Canoes and kayaks were directed to hand pull in the Mud Creek area (limited access due to beaver dam) next to the Park property, while the river guide boats kept to the more open water areas. Trash bags were available for collecting plants and handed out. Refreshments were provided by Oswego County SWCD and County Legislator Shawn Doyle.



Rob Williams, SLELO PRISM Coordinator presenting about invasive species prevention, early detection and rapid response techniques.

The Oswego River Guides Association members provided four river boats with captains for those in need of a water ride while conducting hand pulling. A representative from the Pine Grove Beach Association (PGBA) was present and supportive of the day's effort. He made mentioned that the PGBA had hand pulled earlier in the year as well in certain locations. Weather was picture perfect: sunny and not too hot with a slight light breeze at times. New Selkirk Shores State Park Manager Jim Brophy was present to pass out free parking passes for all volunteers that lent their support in the hand pull event. By shortly after Noon, there had been nearly 25 bags collected; some weighing as much as 60 pounds and others very little. State Park staff collected and disposed of the bags.

Thanks and appreciation goes out to all that participated in the day's event. Without their help, water chestnut would expand throughout the Salmon River estuary.

Next year may be a more targeted effort in hand pulling. Possibly might entertain the idea of river monitors that might be responsible for managing and/or patrolling certain segments of the estuary for pulling water chestnut plants throughout the summer season.

### **Biological Control Program**

In 2002, US Congressman Jim Walsh provided funding to Dr. Bernd Blossey to initiate the research of a bio-control agent for Water chestnut. After a few years of study, funds became depleted even though it looked promising for an agent to be safely produced. In 2013 and into 2014, there has been another drive initiated by the SLELO PRISM for supporting the funding of a bio-control agent research project on behalf of Water chestnut. This new effort may take several years of funding in order to become successful in controlling Water chestnut. In the meantime continued chemical treatments and hand pulling efforts will still be needed.

### **Conclusion**

For over the few short years of chemically treating Water chestnuts, it appears that we may be making headway in greatly reducing the populations in the Oswego River. Next spring will be the tell tale time if we truly are. In the meantime, more hand pull events will need to be organized and undertaken for the next phase of control. Without this massive pulling of plants from the water it will sit there and fester until one year it will explode and be out of control for hand pulling. If so, we will have gone backwards with all our hard work.

Chemical treatments will continue, providing the funding and need are still there. System wide, working cooperatively with our Onondaga County Water chestnut partner, it appears that we can begin seeing 'light at the end of the tunnel'. We sincerely hope for the long term control, that the bio-control research project will be fruitful and far reaching. This will have a great impact upon the mid-Atlantic and New England states as well into Canada.

The 2015 season may be the start of a transitional period whereby physical hand pulling will need to be implemented in a more coordinated manner throughout the Three Rivers System. Government can not do this alone. For an effort to begin managing the control of a highly invasive species, it will take a collective effort and work with many other volunteers and private citizens working together towards this common goal.

This agency is very thankful for the funding that has been available to support this program in 2014. Sources of such funding came from: Finger Lakes Lake Ontario Watershed Protection Alliance, National Fish and Wildlife Foundation, St. Lawrence Eastern Lake Ontario PRISM/The Nature Conservancy, and NYS Senator Patty Ritchie/NYS-Department of Environmental Conservation.

### Individuals who assisted with the 2014 Water Chestnut Control Program

Don Nelson - Pesticide Division, NYS Department of Environmental Conservation;  
permit processing and regulatory oversight

Steve Wilson/Josh Burns - applicators, Allied Biological Inc. (contractor)

Michael Peters - hired hand puller w/airboat for Big Bay area/Oneida Lake

Bob Tetro - private landowner, allowed for water access to the Oswego River

Matt Chesbro - private landowner, allowed for water access to Ox Creek area

Michele Tompkins - private landowner, allowed for water access to Ox Creek area

Big Bay Marina - allowed water access to Big Bay area/Oneida Lake

Katrina Seymour - private landowner, allowed water access for sampling Oswego River

David Allen - private landowner, allowed water access for sampling Oswego River

Joe Kempston - private landowner, allowed water access for sampling Oswego River

*The following key individuals or entities were instrumental either in supporting or performing vast hand pull events of Water chestnut throughout Oswego County:*

Richard and Naneen Drosse - volunteer leaders, along with many other helpers, for the Battle Island Area/Oswego River

Mike Cusano - New York Bassmaster Chapter Federation, along with other members, on behalf of Oneida Lake

Scott Shupe - Oneida Lake Association, along with other volunteers/members, on behalf of Oneida Lake

Pine Grove Beach Association - hand pulling effort and support in the Salmon River

Onondaga North Rotary Club - hand pulling in Oneida Lake

Onondaga Audubon Society - members/volunteers, hand pulling on Sage Creek

Rob Williams - Coordinator for the SLELO PRISM

Sabrina Dreythaler – SLELO PRISM seasonal employee

The Nature Conservancy - Central & Western NY Chapter, volunteers & program support

Jim Brophy - Manager of Selkirk Shores State Park and his staff, for program support and the disposal of collected plants at the Port Ontario hand pull site

Mary Penney - NY Sea Grant Specialist and Boat Launch Steward Interns, at Port Ontario and the Battle Island sites

Oswego County River Guides Association - for their river boats and rides for others on the Salmon River

Janet Clerkin - Oswego County Tourism, for publicity and program support

Shawn Doyle - County Legislator, for his donations and volunteering support

The entire staff of the Oswego County Soil and Water Conservation District