

Selected 2% Occupancy Tax Grant Project Summaries

Created By Jeff Diers – June 21, 2013

Watershed Initiatives

1) Bly Hill Drainage Ditch Improvement

\$40,000 received by the Town of North Harmony (2011)

The Bly Hill Road drainage ditch system flowing to Chautauqua Lake had severe erosion problems from stormwater due to steep gradients that produced significant water volume and velocities, leading to increased bed and bank erosion. This elevated sediment and nutrient load flowed directly to the Lake. In order to reduce the on-site erosion, the Town of North Harmony installed concrete deadman drops along a 460 linear foot stretch along the north side of Bly Hill Road. These deadman drops reduced the slope of the ditch channel from a 12% gradient to approximately a 2% gradient. As such, the velocity of the stormwater runoff was reduced as well as the potential for channel erosion, thereby stabilizing the ditch and allowing for healthy vegetative cover to be re-established. The work completed was designed to provide a long term remedy to sediment and nutrient loading to the Lake.



Photo 1: Bly Hill pre-ditch stabilization



Photo 2: Bly Hill post-ditch stabilization

2) Hydro-seeding

\$40,000 received by the Soil & Water Cons. Dist. (2010)

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The primary objective of this project was to substantially control erosion and sediment transport from ditches as recommended in the *Chautauqua Lake Watershed Management Plan*. The Chautauqua County Soil & Water Conservation District provided hydro-seeding to villages, towns and county highway departments across Chautauqua County immediately after ditching projects. The re-establishment of vegetative growth in the road ditch will improve water quality before entering Chautauqua Lake.



Photo 3: Hydro-seeding application



Photo 4: Post hydro-seeding application

Stream Initiatives

3) Goose Creek Streambank Stabilization

\$40,000 received by the Soil & Water Cons. Dist. (2012)

A section of streambank along Goose Creek was in a constant state of severe erosion, leading to significant sediment and nutrient loading to Chautauqua Lake. Chautauqua County Soil & Water Conservation District installed rock-rip-rap, and with the help of Hewes BOCES Environmental Science students, planted willow trees to further stabilize the streambank. The work completed was designed to provide a long term remedy to sediment and nutrient loading to the Lake.



Photo 5: Pre-streambank stabilization



Photo 6: Post streambank stabilization

4) Shadyside Road Debris Basin

\$49,000 received by the Town of Busti (2009)

The site located on Shadyside Road in the Town of Busti was identified in the *Chautauqua Lake and Watershed Pre-Implementation Studies Report* as a priority site due to excess sediment and nutrient loading from entering the stream at locations upstream. To address the sediment and nutrient loading, a debris basin and constructed wetland were installed. The debris basin allows for catching and storing of sediments and waterborne debris, while the marsh/wetland adjacent to the site provides an additional method for sediment and nutrient removal. The work completed was designed to provide a long term remedy to improve water quality by reducing sediment and nutrient loading to the Lake.



Photo 7: Post installation of debris basin and constructed wetland

5) Dewittville Creek

\$40,000 received by the Soil & Water Cons. Dist. (**work to be completed in 2013**)

The weir located at 5644 Meadows Rd, on Dewittville Creek is in danger of collapsing, which would release tons of sediment downstream and would destabilize the adjacent bridge supports. In order to save the weir and bridge, the Chautauqua County Soil & Water Conservation District will install grade stabilizers and limestone rip-rap. The project will be specifically designed to provide a high level of treatment to prevent pollutant loads, in this case, sediment from eroding the streambed prior to discharge into Chautauqua Lake. The present weir has been in place many years, preventing the streambed from degrading and eroding sediments downstream. Using limestone rocks to stabilize the weir from collapse, this project provides for a long term level of treatment.



Photo 8: Pre- weir and grade stabilization

Shoreline Initiatives

6) Maple Springs Shoreline Protection (2009 - 2010)

\$48,375 received by Maple Springs Improvement Committee, Inc. (2009)

\$39,795 received by Maple Springs Improvement Committee, Inc. (2010)

Approximately 650 feet of Chautauqua Lake (Maple Springs) was under constant degradation, primarily from wind-driven wave and ice erosion. This results in eroded sediments and nutrients being deposited to the Lake. In order to stabilize the shoreline and prevent sediment and nutrient loading to the Lake, rock-rip-rap and willow trees were installed. The work completed was designed to provide a long term remedy to sediment and nutrient loading to the Lake.



Photo 9: Pre-shoreline stabilization



Photo 10: Post shoreline stabilization

In-Lake Initiatives

- 7) Lake Weed Harvesting Operations (2009 – present)
\$90,000 Chautauqua Lake (2013)
\$5,000 Findley Lake (2013)
\$3,000 Cassadaga Lake (2013)
\$1,500 Bear Lake (2013)

In order to support aquatic vegetation (weeds) management, annual funding is allocated to 4 of the inland lakes of Chautauqua County. These funds are to be utilized for harvesting and control of excessive growth of aquatic vegetation.



Photo 11: Shoreline weed cleanup



Photo 12: Mechanical weed harvesting