

**Chautauqua County
Soil & Water Conservation District**

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FINAL REPORT

Contract Number C306472

LEWPA YEAR 3 EPF FY 2018

March 2021



Report prepared by:

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Lake Erie Watershed Hydroseeding Initiative
Projects were completed May 2019 – August 2019

LEWPA funds allocated through the hydroseeding program provided road ditch and post construction soil stabilization at no cost to municipalities who have roadways located in the Lake Erie Watershed. This helped stabilize 9.2 acres of roadside ditches, outlets, banks, slopes and other sensitive areas within the watershed. All hydroseeding projects have been monitored to ensure vegetation established and to verify that erosion hadn't occurred.

All of the projects that were funded through LEWPA were also hydroseeded upon completion of the project. Other areas that were hydroseeded included roadside ditches that had just been cleaned out by the local highway departments. Many of our local highway departments understand the importance of established vegetation in the roadside ditches. Grassed Waterways/Gully Stabilization typically has a lifespan of 4 years.

LEWPA Funds: \$19,872.00



Annual Tons of Sediment Reduced	Annual Pounds of Phosphorous Reduced	Annual Pounds of Nitrogen Reduced	Lifespan Tons of Sediment Reduced	Lifespan Pounds of Phosphorous Reduced	Lifespan Pounds of Nitrogen Reduced
641.8	641.8	1,283.6	2,567.2	2,567.2	5,134.4

Tupper Creek - Forestville

Project was constructed December 2019

LEWPA funding will support implementation of erosion/sediment and nutrient control BMPs for multiple landowners along Tupper Creek in the Village of Forestville. This project partnered with the Chautauqua County 2% Bed Tax Program. Large rock rip-rap was placed along the bank, reducing soil loss. A historic septic tank that was located on the bank of the Creek was removed and abated. Willow cuttings were incorporated at the top of the stabilization. Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$2,928.00

Local Leveraged Funds: \$34,772.45



Annual Tons of Sediment Reduced	Annual Pounds of Phosphorous Reduced	Annual Pounds of Nitrogen Reduced	Lifespan Tons of Sediment Reduced	Lifespan Pounds of Phosphorous Reduced	Lifespan Pounds of Nitrogen Reduced
60.6	60.6	121.1	606.0	606.0	1,211.0

Scott Creek - Sheridan

Project was constructed June 2019

LEWPA funding will support implementation of erosion/sediment and nutrient control BMPs along Scott Creek in the Town of Sheridan. This project partnered with the Chautauqua County 2% Bed Tax Program and in-kind from the landowners and Town of Sheridan Highway Department. Large rock rip-rap was placed along the bank, reducing soil loss. An engineered rock riffle was added downstream of the project to prevent headcutting of the stream and still allow fish migration to upstream reaches of the Creek. Willow cuttings were incorporated at the top of the stabilization and the bank was planted by the landowners following construction. Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$10,117.74

Local Leveraged Funds: \$17,115.00



Annual Tons of Sediment Reduced	Annual Pounds of Phosphorous Reduced	Annual Pounds of Nitrogen Reduced	Lifespan Tons of Sediment Reduced	Lifespan Pounds of Phosphorous Reduced	Lifespan Pounds of Nitrogen Reduced
22.6	22.6	45.2	226.0	226.0	452.0

Canadaway Creek - Fredonia

Project was constructed August through September 2019

LEWPA funding will support implementation of erosion/sediment and nutrient control BMPs along Canadaway Creek in the Town of Pomfret, a popular steelhead spawning stream. This project partnered with the Chautauqua County 2% Bed Tax Program as well as financial investment from the landowners. Large rock rip-rap was placed along the bank and pinned to the shale substrate. Willow cuttings were incorporated at the top of the stabilization, and large native trees were added to replace dead/dying trees that were removed during construction. Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$3,129.24

Local Leveraged Funds: \$33,300.00



Annual Tons of Sediment Reduced	Annual Pounds of Phosphorous Reduced	Annual Pounds of Nitrogen Reduced	Lifespan Tons of Sediment Reduced	Lifespan Pounds of Phosphorous Reduced	Lifespan Pounds of Nitrogen Reduced
177.7	177.7	355.3	1,777.0	1,777.0	3,553.0

Tributary to Lake Erie - Ripley

Project was constructed December 2019

LEWPA funding will support implementation of erosion/sediment and nutrient control BMPs along an unnamed tributary in the Town of Ripley. The project goals will be to stabilize the erosion, reduce the sediment and nutrient inputs into the watershed, protect the agricultural operation and adjacent private properties and improve the riparian vegetation. This project partnered with the Chautauqua County 2% Bed Tax Program. Large rock rip-rap was placed along the bank, reducing soil loss. Grade stabilization structures were installed throughout the project site to prevent head cutting of the stream bed. Single stone bendway weirs were used to redirect flow away from the toe of the bank. Willow cuttings were incorporated at the top of the stabilization. Streambank stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: \$1,121.03

Local Leveraged Funds: \$27,565.00



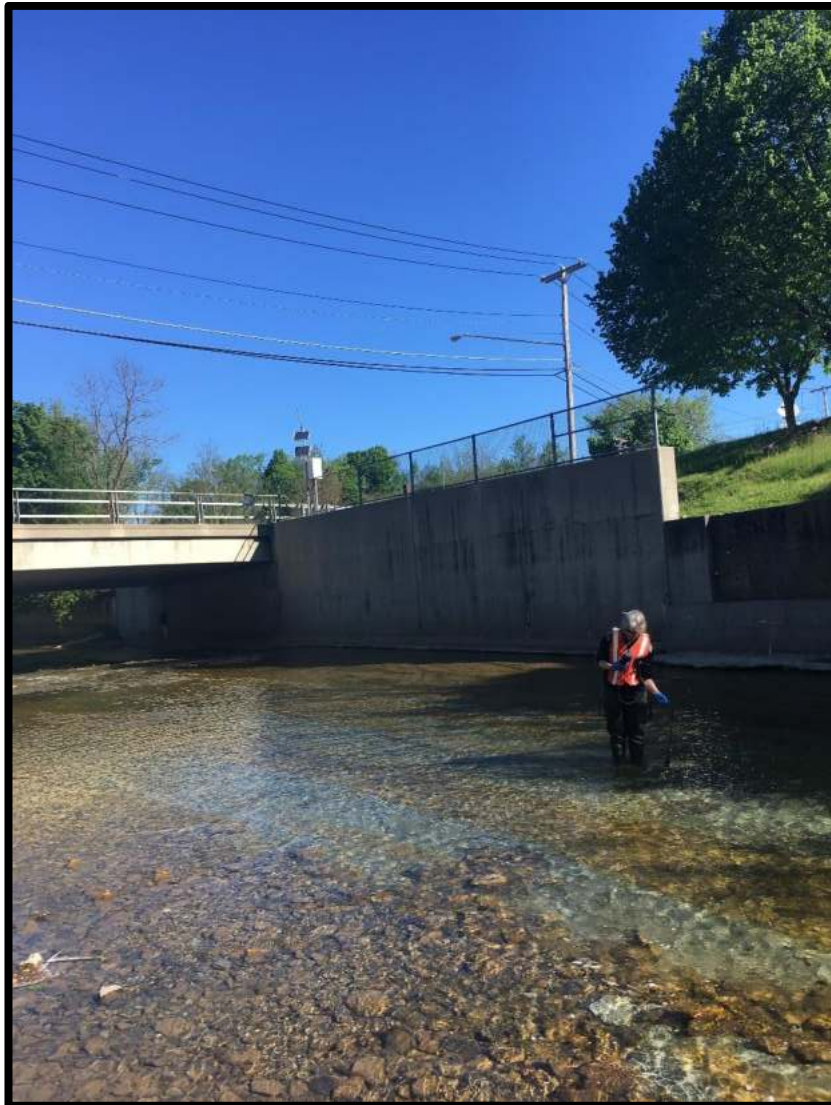
Annual Tons of Sediment Reduced	Annual Pounds of Phosphorous Reduced	Annual Pounds of Nitrogen Reduced	Lifespan Tons of Sediment Reduced	Lifespan Pounds of Phosphorous Reduced	Lifespan Pounds of Nitrogen Reduced
181.7	181.7	363.4	1,817.0	1,817.0	3,634.0

Water Quality Monitoring
Sampled May 2019 through June 2020

The NYS Department of Environmental Conservation has contracted with the US Geological Survey (USGS) to conduct baseline water quality monitoring in the Lake Erie Watershed. This baseline monitoring will include monthly sampling for nutrients and sediments in 19 locations across the watershed. The District partnered with the Chautauqua Watershed Conservancy to collect baseline nutrient and sediment water quality data that can be used for watershed model development that will help focus future water quality improvement efforts in the basin and aid in loading calculation and future regional target-setting efforts for nutrient reduction. Five sites selected by NYSDEC were located in Chautauqua County: Chautauqua Creek, Canadaway Creek, Crooked Brook, Walnut Creek and Silver Creek.

LEWPA Funds: \$16,766.15

Local Leveraged Funds: \$1,994.41



Lake Erie Boat Steward Program

Project was conducted during the 2019 boating season

LEWPA funds were utilized to support a Chautauqua County-wide Boat Stewards Program. This initiative was funded through a Senator Young appropriation for launches on Bear and Cassadaga Lakes, Chautauqua County 2% Bed Tax funds for launches on Chautauqua Lake and LEWPA funding for the two Lake Erie launches, the City of Dunkirk and Town of Westfield. Boat stewards were trained to survey boaters and inspect boats. For the season, 726 boats were inspected, and the stewards interacted with 716 visitors. The stewards also surveyed boaters on what previous waterway they visited prior to launching into Lake Erie. This data all supports a larger collaborative in order to better track the spread of aquatic invasive species and provide preventative interaction with the potential vectors for transport.

LEWPA Funds: \$5,000.00



Pollution Prevention – City of Dunkirk

Project was conducted July 2019 – October 2019

The District partnered with the Chautauqua Watershed Conservancy (CWC), Chautauqua County Lake Erie Management Alliance and the City of Dunkirk to host education and outreach regarding clean beaches. In July 2019, more than 100 volunteers participated in a beach clean-up in the City of Dunkirk from Wright Park to Point Gratiot. LEWPA funds were used to supply materials and tools to facilitate volunteers in the clean-up efforts. Working jointly with CWC, LEWPA funds were used for materials to mark storm drains in the First Ward of the City of Dunkirk. This is one of the Wards that runs along the lakefront and has numerous storm drains that empty right at the bathing beaches. City engineers facilitated planning measures and volunteers were used to mark 106 storm drains with stencils and spray paint. LEWPA funds were also used to develop a feasibility study to assess macro-plastic pollution in Dunkirk Harbor. The engineers developed a fencing and receptacle design to reduce plastic getting into the Harbor. By commissioning this study, the project can be better suited for funding through NYS Consolidated Funding Application or funds from the Environmental Protection Agency.

LEWPA Funds: \$6,715.84




Engineering Feasibility Study: Hyde Creek - City of Dunkirk


Project was conducted November 2018 – January 2019

LEWPA funds were used to develop a feasibility study for water quality improvements at Hyde Creek in the City of Dunkirk. Hyde Creek runs through Wright Park and empties just up-current of the bathing beach. Past testing done on the site has led to findings of elevated bacteria levels. One of the sources of this bacteria was identified as the Hyde Creek culvert. This project supports an environmental component to more recreation focused projects that are already underway in the area. This study determined the feasibility of addressing both water quality concerns and cost-effective solutions, as well as treating a stand of invasive knotweed. By commissioning this study, the project can be better suited for funding through NYS Consolidated Funding Application or funds from the Environmental Protection Agency.


LEWPA Funds: \$5,000.00



**Feasibility Study for a Water Quality Improvement
Project at Hyde Creek**



Prepared for:
Chautauqua County Soil & Water Conservation District
Hyde Creek
City of Dunkirk
Chautauqua County, NY



Prepared By:
EcoStrategies Engineering & Surveying, PLLC
March 4, 2021

Chautauqua County LEWPA Year 3 Summary

Projects	Totals
Lake Erie Watershed Hydroseeding Initiative	\$19,872.00
Tupper Creek Rehabilitation – Village of Forestville	\$2,928.00
Scott Creek Rehabilitation – Town of Sheridan	\$10,117.74
Canadaway Creek Rehabilitation – Village of Fredonia	\$3,129.24
Tributary to Lake Erie – Town of Ripley	\$1,121.03
Water Quality Sampling	\$16,766.15
Lake Erie Boat Steward Program	\$5,000.00
Pollution Prevention – City of Dunkirk	\$6,715.84
Engineering Feasibility Study Hyde Creek – City of Dunkirk	\$5,000.00
Total LEWPA Funding	\$70,650.00
Leveraged Funds Total	\$114,746.86
Total Project Implementation Dollars	\$180,396.86

Annual Tons of Sediment Reduced	Annual Pounds of Phosphorous Reduced	Annual Pounds of Nitrogen Reduced	Lifespan Tons of Sediment Reduced	Lifespan Pounds of Phosphorous Reduced	Lifespan Pounds of Nitrogen Reduced
1,084.4	1,084.4	2,168.6	6,993.2	6,993.2	13,984.4

For all Chautauqua County LEWPA Year 3 Projects