Erie County
Soil & Water Conservation District

Mark Gaston – District Field Manager
50 Commerce Way, East Aurora, NY 14052
(716) 652-8480 x 5

FINAL REPORT

Contract Number C306472

LEWPA YEAR 1 EPF FY 2016

June 2019

Lake Erie Watershed Hydroseeding Initiative

Projects were completed in the spring and fall of 2017

LEWPA funds allocated through the hydroseeding program provided road ditch and post construction soil stabilization at no cost to the County. This helped stabilize 6 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 stabilization projects that were funded through LEWPA were 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: $5,250

Local Leveraged Funds: $65,288

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
231	266	532	925	1064	2128

Delaware Creek Tributary Stabilization Project – Town of Brant

Completion Date: September 2017

LEWPA funded implementation of erosion and sediment control activities along a tributary to Delaware Creek in the Town of Brant. The waterway was experiencing stream bed degradation and bank erosion as a 3 ft head cut had formed 200 feet downstream of the cross-road culvert. LEWPA funding was utilized for contracting with a private contractor for bmp installation consisting of grading and shaping of the bed and banks and lining of the waterway with rock riprap along 141 ft to a stabilized rock outlet.

The Town of Brant partnered with the District for technical assistance and the District provided a plan to stabilize the erosion and reduce the sedimentation as described above. Downstream segments of Delaware Creek are classified as C(TS) supporting trout populations and are listed as having impacts to water quality from suspected nutrient pollutants in the 2010 NYSDEC PWL. Project goals achieved a reduction of sediments and phosphorus from entering the watershed and stabilization of the head cut and associated bank erosion. Ditch stabilization projects typically have a lifespan of 10 years.

LEWPA Funds: $9,000 ***Local Leveraged Funds: $0***

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
12	12	24	120	120	240

Factory Street / Heritage Park Stormwater Project – Village of Springville

Project was completed in fall 2017

LEWPA funds supplemented a Village of Springville stormwater improvement project adjacent to Spring Brook, a C(TS) stream and one of the last native brook trout streams in the County. The goal of the project is to return a former industrial site adjacent to the stream, with a large amount of impervious area, to a multi-use recreational area. The main items to be cost shared include removal of impervious surface and compost/ top soiling and seeding along with construction of a rain garden to treat runoff from an adjacent parking area. LEWPA funds were matched by Village and County Community Development Block Grant dollars.

LEWPA Funds: $28,066.66

Local Leveraged Funds: $423,063.34

Number of Stormwater Control Measures	Number of Acres of Stormwater Treated	Number of Trees Planted
2	2.3	7

Invasive Species Control Project – Spring Brook Fen

Project Completion Dates: August 2018

LEWPA funding assisted the Western NY Land Conservancy to complete an invasive species eradication project on a protected 11-acre property adjacent to Spring Brook, a C(TS) stream and in a NYS regulated wetland (SP-7). The property is home to Spring Brook, a headwater stream in the Cattaraugus Creek watershed critical to native brook trout spawning, as well as a rare fen wetland. The property provides ecosystem services, including water quality improvements, for the Lake Erie watershed. Unfortunately, the habitats and ecosystem services were threatened by invasive species including glossy buckthorn and multiflora rose, among others. The goals achieved were improved water quality and restored rare ecological communities at Spring Brook Fen. Headwater ecosystems like this influence the character of downstream waters by mitigating flooding, maintaining water quality and quantity, recycling nutrients, and providing habitat.

LEWPA Funds: $15,000

Local Leveraged Funds: $20,000

Acres of Invasive Species Eradication
11

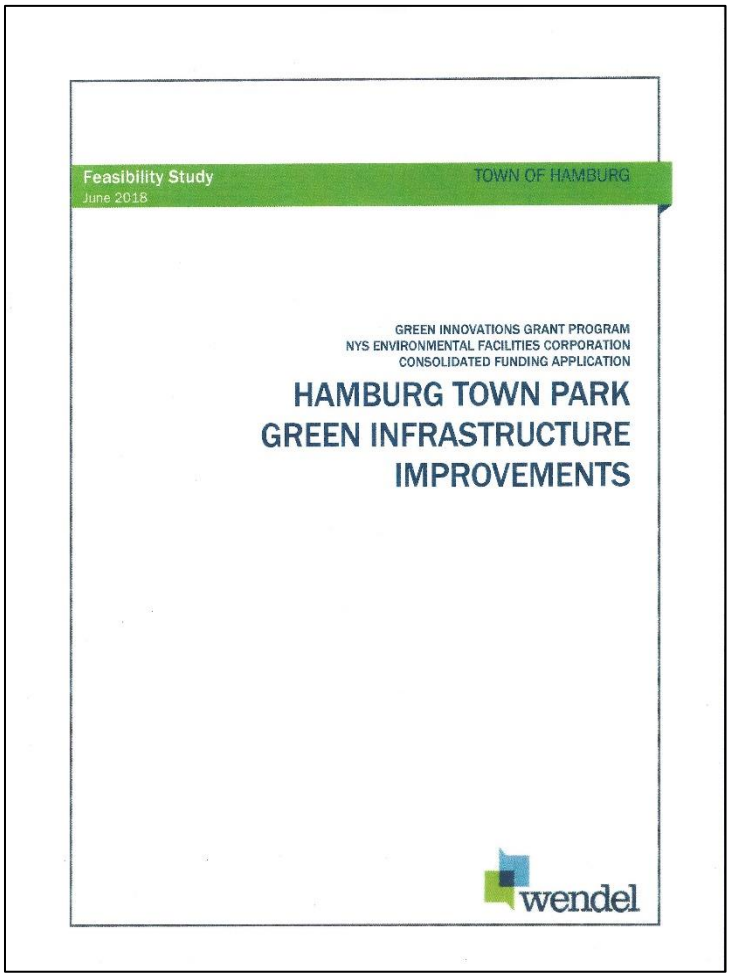
Hamburg Town Park Green Infrastructure FS – Town of Hamburg

This Project was finalized September 2018

LEWPA fund were used to support a Town of Hamburg project to survey and design required to develop a green infrastructure feasibility study of the existing town beach park. An existing stormwater outfall along the beach collects runoff from surrounding roads and homes and discharges directly to Lake Erie. As the existing stormwater system was installed prior to modern NYSDEC regulations, no water quality treatment was provided. Funds enabled the town to evaluate techniques including but not limited to rain gardens, bioretention areas, and/or porous pavement to encourage infiltration and provide water quality treatment of the outfall in the town park and beach property. The feasibility study will be used to apply for GIGP and/ or other available funding to construct the recommended green infrastructure improvement at the beach and park, which will help decrease the discharge of pollutants to Lake Erie.

Water quality impairments linked to stormwater runoff pollution, have caused many coastal beaches along Lake Erie to suffer periodic closures. According to the Natural Resources Defense Council's Annual Testing the Waters Beach Reports, Hamburg Beach experiences an average of 21 days closed or on advisory during their beach season each year. Implementation of green infrastructure to manage and treat storm water runoff has the potential to reduce closures and improve the health of coastal resources.

LEWPA Funds: $15,000.00 **Local Leveraged Funds: $0**


Feasibility Study
June 2018

TOWN OF HAMBURG

GREEN INNOVATIONS GRANT PROGRAM
NYS ENVIRONMENTAL FACILITIES CORPORATION
CONSOLIDATED FUNDING APPLICATION

HAMBURG TOWN PARK
GREEN INFRASTRUCTURE
IMPROVEMENTS

wendel

Water Quality Monitoring – QAPP Development

This Project was finalized on October 2, 2018

The NYS Department of Environmental Conservation contracted with the US Geological Survey (USGS) to conduct baseline water quality monitoring including sediment and nutrient sampling at 19 sites in the Niagara River/Lake Erie Watershed. LEWPA will conduct pathogen monitoring at those same 19 sites. A Quality Assurance Project Plan (QAPP) was developed in this round of funding to parallel the USGS baseline water quality monitoring program utilizing the state-certified Erie County Health Laboratory to monitor for *E. coli*, total coliform, and fecal coliform bacteria. LEWPA worked with NYS Department of Environmental Conservation, Division of Water staff to finalize the QAPP for monitoring to begin in subsequent years. All parties signed-off on the document on October 2, 2018.

LEWPA Funds: $10,000.00 ***Local Leveraged Funds: $0.00***

Niagara River/Lake Erie Watershed Bacteria Sampling
QUALITY ASSURANCE PROJECT PLAN

Prepared for:
New York State Department of Environmental Conservation

Revision 3
September 25, 2018

Lake Erie Watershed Protection Alliance
c/o Erie County Department of Environment and Planning
95 Franklin Street, Room 1080
Buffalo, New York 14202

Project Manager:
Joanna Panasiewicz
(716) 858-8077
Joanna.Panasiewicz@erie.gov

This document has been prepared according to the United States Environmental Protection Agency publication, *EPA Requirements for Quality Assurance Project Plans*, dated March 2001. This document was prepared with support from the State of New York Environmental Protection Fund and the opinions, results, findings and/or interpretations of data contained herein are the responsibility of the Contractor and do not necessarily represent the opinions, interpretations or policy of the State.

Other Specialized Project – BMP Tracking

This Project was finalized on February 2017

The ability for the LEWPA Board of Directors to track the implementation of best management practices constructed throughout the watershed has been acknowledged as a high priority need. This tracking ability is an essential tool for measuring progress of water quality programs across the entire watershed and an essential element of a comprehensive watershed management plan. LEWPA funds were used to work with NYS Department of Environmental Conservation Division of Water staff to review currently existing tracking tools and develop one that meets the LEWPA Board and NYS needs.

LEWPA Funds: $5,000.00 ***Local Leveraged Funds: $0.00***

County	BEC Project Code	LEWPA Project Description	Description of leveraged funds and project details	Inspections/Comments Before	Sub-watershed	Location Description	LEWPA funds	Source funds amount	Source of leveraged funds, Band, state, federal			Completion	Was final project title be modified	Lineal feet stabilized	Acres stabilized	Acres of invasive species removed	Acres of invasive species seeded	# of feasibility studies or inventories	# of acres of shoreline	# of acres of wetland	# trees planted	# of acres of buffer	Annual tons sediment reduce	Annual pounds of phosphorus	Annual pounds of other	# people reached	Lifetime tons sediment reduce	Lifetime pounds phosphorus reduce	Lifetime pounds of other
Chautauqua	Installation of BMPs	Nature-mending bulkhead	Bank slide and post-construction soil stabilization in preparation for alternative shoreline stabilization.	Silica sand imported a month later to remove compaction has grown and remains in ordinance	Multiple	Throughout watershed	$24,500.00	$0.00		4	10/19/2017	yes	-	-	19.85	-	-	-	-	-	-	-	-	751.1	751.1	1,522.1	4	3,004.4	3,004.4	6,088.4
Chautauqua	Other Technical	Wetland Feasibility study	Engineering study of a constructed wetland at Dunkirk Park Brook/Vivell to apply for CPG or other grant	Copy of report	Canadaway	Vivell, City of Dunkirk	$7,200.00	$0.00		4	5/28/2018	yes	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-
Chautauqua	Installation of BMPs	Crooked Brook Stabilization	Inter-agency City of Dunkirk School District grounds funding to stabilize creek.	DEC/CD non-compliance	Canadaway	Crooked Brook, City of Dunkirk	$6,887.15	$15,625.00	Local	4	8/11/2017	yes	158	-	-	-	-	-	-	-	-	-	24.2	24.2	48.3	10	242.0	242.0	483.0
Chautauqua	Installation of BMPs	Canadaway Creek Stabilization	Inter-agency Great Lakes Park and NYSDEC Restoration Bid funding and $28,188 Chautauqua County 2.5 Bed Tax funding. State match of $15,625	DEC/CD non-compliance	Canadaway	Canadaway Creek, Dunkirk, NY	$5,625.00	$56,250.00	county, state, federal	4	10/26/2017	yes	280	-	-	-	-	-	-	-	-	-	38.3	38.3	38.3	10	383.0	383.0	383.0
Chautauqua	Installation of BMPs	Beaver Creek Stabilization	Inter-agency Great Lakes Park and NYSDEC Restoration Bid funding and $9,375 Chautauqua County 2.5 Bed Tax funding and $9,375 Chautauqua County 2.5 Bed Tax $15,345.38 Cattle Protection Program Instructional $4,230 in local and in-kind and $47,854 from state sources	DEC/CD non-compliance	Chautauqua	Beaver Creek, Town of Westfield	$18,520.31	$33,222.69	local, county, state	4	12/11/2017	yes	-	-	-	4	80.2	-	-	-	-	-	2.5	2.5	2.5	10	25.0	25.0	52.5
Chautauqua	Installation of BMPs	Walnut Creek Stabilization	Inter-agency $35,375 Chautauqua County 2.5 Bed Tax funding and Town of Ashville Highway Department in-kind $15,625.38 to stabilize an eroding bank.	DEC/CD non-compliance	Walnut	Walnut Creek, Ashville, NY	$3,852.38	$52,937.10	local, county	4	4/8/2018	yes	388	-	-	-	-	-	-	-	-	-	72.7	72.7	145.4	10	727.0	727.0	1,454.0
Chautauqua	Installation of BMPs	Slippery Rock Creek Stabilization	Inter-agency $15,375 Chautauqua County 2.5 Bed Tax funding and $2,188 in labor in-kind to stabilize	DEC/CD non-compliance	Chautauqua	Slippery Rock Creek, Portland, NY	$2,187.50	$23,375.00	local	4	10/26/2017	yes	108	-	-	-	-	-	-	-	-	-	12.1	12.1	24.2	10	121.0	121.0	242.0
Chautauqua	Invasive Species	Herbicide Application of Crooked Brook	Federal Great Lakes Park and NYSDEC Restoration Bid Funds will be leveraged for USDA Forest Service brush stabilization and LEWPA funds will coordinate invasive species at Westfield Park and	DEC/CD non-compliance	Canadaway	Crooked Brook	$525.00			4	5/28/2018	yes	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Chautauqua	Public Outreach & Monitoring	Dunkirk Harbor Bird Stewardship	Partnership with Chautauqua Lake Association to provide Dunkirk Harbor Bird Stewardship summer	Copy of report	Canadaway	Dunkirk Harbor	$15,000.00			4	4/8/2018	yes	-	-	-	-	-	-	-	-	1100	581	-	-	-	-	-	-	-
Chautauqua	Water Quality Monitoring	Drawing GAPP for bacteria sampling and qap analysis of monitoring records.	The Quality Assurance Project Plan will be developed for bacteria sampling at 19 sites currently being sampled by USGS for nutrients and other water quality parameters. Total cost for GAPP and qap analysis is $20,000 from all three agencies helpful.	Finalized GAPP	19 sites	19 sites	$10,000.00	$0.00		4	10/2/2018	yes	-	-	-	-	-	0.333333333	-	-	-	-	-	-	-	-	-	-	-
Erie	Other Technical Assistance	Hamburg Town Park Brook Oil Project	Inter-agency and design process of a stabilized stream on existing stormwater outfall at the brook to be used as a public DEP or other funding and technical stabilization	Copy of Feasibility Study	Cayuga Creek	Hamburg Town Park Brook	$15,000.00	$0.00	none	4	3/14/2018	yes	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Erie	Installation of BMPs	Nature-mending bulkhead	Inter-agency Great Lakes Park and NYSDEC Restoration Bid funds leveraged for USDA Forest Service brush stabilization and LEWPA funds will be used for brush and $20,000 for bulkhead	DEC/CD inspected for erosion and recession in ordinance	Multiple	Buffalo	$5,250.00	$65,000.47	local and state	4	Oct-17	yes	-	-	4	-	-	-	-	-	-	-	251.0	250.0	502.0	4	502.0	1,004.0	2,120.0
Erie	Installation of BMPs	Town of Boston Stabilization	Stream bank and bed stabilization with riprap in Delaware Creek (STB) in order to reduce ordinance	ECDC/CD inspected for ordinance 10/6/17	Big Sister Creek	Delaware Creek 18181 Broad Hollow	$5,000.00	$0.00	none	4	5/22/2017	yes	441	-	-	-	-	-	-	-	-	-	12.0	12.0	24.0	10	120.0	120.0	240.0
Erie	Installation of BMPs	Footers Street/Hamburg Park Stormwater Project	Village of Springville stormwater improvement project adjacent to Spring Brook (STB) includes removing impervious surface, directing runoff to rain gardens and installing riparian buffers as part of a larger redevelopment project. This leverages NY State Street Funding, Federal Community Development Block Grant funding and Village of Springville funding. DEC rain gardens training	Photos from project and final bills	Headwaters Cattaraugus Creek	Spring Brook near Franklin Street	$28,000.00	$194,996.00	local, state, federal	4	2/24/2017	yes	-	-	-	2	2.3	-	-	-	7	-	-	-	-	-	-	-	-
Erie	Other Specialized Quality	BMP tracking system Water monitors	A tracking spreadsheet will be developed to keep track of water quality improvements from LEWPA GAP projects.	Final Tracker	all	all	$5,000.00	$0.00	none	4	5/24/2018	yes	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-
Erie	Water Quality Monitoring	Drawing GAPP for bacteria sampling and qap analysis of monitoring records.	The Quality Assurance Project Plan will be developed for bacteria sampling at 19 sites currently being sampled by USGS for nutrients and other water quality parameters. Total cost for GAPP and qap analysis is $20,000 from all three agencies helpful.	Finalized GAPP	19 sites	19 sites	$10,000.00	$0.00	none	4	10/2/2018	yes	-	-	-	-	-	0.333333333	-	-	-	-	-	-	-	-	-	-
Erie	Invasive Species	Spring Brook Fox	Spring Brook Fox is an 11 acre parcel in a 1995 acquisition of Erie County Environmental Management. This implements the projects identified in the 2012 current conditions report and 2013 property management plan	Headwaters NY Land Conservancy consult to architecture	Headwaters Cattaraugus Creek	Spring Brook headwaters	$15,000.00	$20,000.00	local	4	8/8/2018	yes	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS							$259,350.00	**********						2,966	23.55	8	85.1	41.5	5	7	1100	581	1,592.3	1,597.3	3,192.8		8,213.6	8,592.6	17,351.8

LEWPA Year 1 "Overview"

Projects	Totals
Lake Erie Watershed Hydroseeding Initiative	***($5,250)***
Delaware Creek Tributary Stabilization Project – Town of Brant	***($9,000)***
Factory Street/ Heritage Park Stormwater Project	***($28,066.66)***
Invasive Species Control – Springbrook Fen	***($15,000)***
Hamburg Town Park Green Infrastructure FS – Town of Hamburg	***($15,000)***
Monitoring Gap Analysis/Pathogen QAPP	***($10,000.00)***
Other – BMP Tracking	***($5,000)***
LEWPA Year 1 Grant Total	***$87,316.66***
Leveraged Funds Total	***$508,351.34***

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
243	278	556	1045	1184	2368

For all Year 1 LEWPA Projects