

Chapter 7: Watershed Projects Inventory

Provided in the Table 7.1 on the following pages is an inventory of all of the most recent and currently underway watershed-related projects. To effectively assess the conditions and influential factors affecting the Niagara River Watershed and to identify actions to protect and restore the watershed, it is essential to understand what work has already been completed or is already underway.

The inventory provides an outline of Federal Projects (i.e. US Army Corp of Engineers), State Projects (i.e. NYS DEC) and County Projects (i.e. Soil & Water, Sewer Districts). It should be noted that the following chart is a preliminary assessment and does not attempt to capture all of the potential water-influencing projects within the watershed. For example, there are many smaller local projects underway at the municipal level that are not fully documented in this inventory.

A total of 78 projects were identified in the inventory. To highlight the major progress areas in the watershed the captured projects are categorized to represent the main goal or issue the project aims to address. In Table 7.2 these 10 categories are identified along with the number of projects that fall within these categories. Data Collection & Research and Habitat Restoration projects represent the two largest project categories found in the watershed. This may be explained by Buffalo State College’s Great Lakes Center, which is located in the watershed and where much of the research focusing on Lake Erie is completed.

Table 7.2 Total Watershed Projects by Category

Category	#
Non-Point Source Pollution	8
Water Quality	3
Habitat Restoration	18
Infrastructure Support	7
Navigational Dredging	6
Erosion	1
Toxics Reduction	7
Flood Control	3
Data Collection & Research	25
Outreach & Education	4

Table 7.3 Total Projects by Subwatershed

Subwatershed	#
Niagara River	37
Buffalo River	18
Buffalo Creek	3
Cayuga Creek	3
Smokes Creek	8
Eighteenmile Creek	1
Ellicott Creek	4
Murder Creek	1
Lower Tonawanda Creek	6
Middle Tonawanda Creek	3
Upper Tonawanda Creek	3
Lake Erie	15

When evaluated by number of projects per sub-watershed, the Buffalo River and Niagara River Sub-watersheds are the clear winners. However, this may be because both the Niagara River and Buffalo River Sub-watersheds have so many potential factors contributing to impairment at this time, plus both areas are designated Areas of Concern.

Table 7.1 Niagara River Watershed Projects Inventory

#	Project Title	Project Description	Sub-watershed	Organization/Agency	Project Level	Cost	Time-frame	Category	Status
1	Times Beach CDF Phragmites Demo (Buffalo, NY - Outer Harbor)	Times Beach is a confined disposal facility (CDF) located on the shore of Buffalo Harbor. Great Lakes Restoration Initiative (GLRI) funding (FY11 & 12) was used to plan, design and construct a demonstration project of new and improved management strategies against invasive aquatic plants on 31 acres within the project site.	Smokes Creek	US Army Corp of Engineers	Federal	\$495,000	2012-2018	Data Collection & Research	Underway
2	Beaver Island State Park Habitat Restoration	Habitat restoration project to maximise the biodiversity of the park and to provide a richer recreational experience for the public. Lagoon Dredged & returned to marsh area restored.	Niagara River	NYS office of Parks, Recreation & Historic Preservation	State	Not Available	2010-11	Habitat restoration	Completed
3	Black Rock Canal Improvements	Green infrastructure, sediment/contaminant removal & technology improvements within the Black Rock Canal.	Niagara River	US Army Corp of Engineers	Federal	\$250,000	2012	Non-point Source Pollution & Habitat Restoration	Completed
4	Buckhorn State Park Habitat Restoration	Protection of an important bird nesting & breeding area within the park. Includes Osprey poles installed and marsh & dredging of marsh area.	Niagara River	NYS office of Parks, Recreation & Historic Preservation	State	Not Available	2010	Habitat Restoration	Completed
5	Contaminated Sediment Strategic Plan	Identify strategic opportunities for the USACE to collaborate with EPA's Legacy Act and other programs to remove contaminated sediments from the U.S. Great Lakes Area Of Concerns (AOCs) having federal navigation channels.	Niagara River & Buffalo River	US Army Corp of Engineers	Federal	\$756,000	2010-2015	Toxics Reduction	Underway
6	Niagara Gorge Rim Restoration Plan	Development of an ecological restoration plan for the Niagara Gorge Rim.	Niagara River	Wild Ones Niagara/Niagara River Greenway Commission	Local	TBD	TBD	Habitat Restoration	Planning
7	Niagara River NY Strategic Navigation Dredging	Feasibility planning to remove contaminated sediments from the Niagara River.	Niagara River	US Army Corp of Engineers	Federal	Not Available	2010-2011	Navigational Dredging/Toxics Reduction	Terminated
8	Niagara River Toxics Management Plan	The Niagara River Toxics Management Plan (NRTMP) is a detailed annual work plan which targets 18 priority toxics for reduction.	Niagara River	US EPA, Environment Canada, NYS DEC & Ontario Ministry of the Environment	Federal	Not Available	On-going	Toxics Reduction	Ongoing
9	Ontario Street Aquatic Habitat Restoration	The aquatic habitat at the mouth of Cornelius Creek is severely degraded and in need of restoration. FY10 funds were used to complete a federal interest determination, which was negative and the project was terminated.	Niagara River	US Army Corp of Engineers	Federal	Not Available	2009	Habitat Restoration	Terminated
10	Strawberry Island Habitat Restoration	Habitat improvements designed to create approximately seven acres of new diverse wetland habitat for fish, wildlife and water birds on the state-owned island. The improvement project includes measures to protect downstream shallow water habitats that may be affected by erosion caused by severe storms.	Niagara River	NYSDEC, NYSOPRHP, NYSDOT	State	\$2.3 Million	2014-2016	Habitat Restoration	Underway
11	Tonawanda Creek Watershed Agricultural BMP Implementation Project	After completing Agricultural Environmental Management Assessments, Participating Farms are implementing BMPs throughout the watershed. Covering Barnyards to reduce erosion of animal wastes.	Tonawanda Creek	NYSDEC Niagara County SWCD Genesee County SWCD Wyoming County SWCD	State/county	\$1,647,000	2001-	Non-point Source Pollution	Ongoing
12	Tonawanda Creek Watershed Agricultural BMP Implementation Project	In the Niagara County section of the Tonawanda Creek Subwatershed participating farms receive funding to cover their Barnyards to reduce erosion of animal wastes.	Tonawanda Creek	Niagara County SWCD	State/county	\$450,000	2011-2015	Non-point Source Pollution	Ongoing

13	Ellicott Creek Flood Control Project	Conduct land survey, mark boundaries, identify and address physical encroachments.	Ellicott Creek	NYSDEC	Not Available	\$15,000	2013	Flood control	Underway
14	Murder Creek Bank Stabilization	Murder Creek Bank Stabilization	Murder Creek	NYSDEC	State	\$212,000	Not Available	Non-point Source Pollution	Completed
15	Agri-Chemical Handling Facility	Implement BMPs for an Agri-chemical Handling Facility within the Bergholz Creek area.	Niagara River	Niagara County SWCD	Federal	\$38,000	2014	Toxics Reduction	Completed
16	Bergholz Creek Cover Crop	Provide cover crop to reduce erosion in the Bergholz Creek area.	Niagara River	Niagara County SWCD	Federal	\$88,000	2015-2019	Non-point Source Pollution	Underway
17	North Gorge Interceptor Project	Phase 1 Removal of sediment and debris from the North Gorge Interceptor to improve function and original capacity.	Niagara River	City of Niagara Falls	Federal	\$11 Million	2009-	Infrastructure Support	Completed
18	Bergholz Creek Segment Analysis	Conducted in-depth analyses of Bergholz Creek to better understand hydrodynamics and sediment loading.	Niagara River	Niagara County SWCD	County	\$22,000	2014	Data Collection & Research	Completed
19	Broderick Park Habitat Restoration & Seawall Repair	Design repairs for the deteriorating seawall at Broderick Park and restore habitat and fish passage specifically for Emerald Shiners, a species important to the food web of Lake Erie.	Niagara River	US Army Corp of Engineers	Federal	\$130,000	2014	Infrastructure Support & Habitat Restoration	Underway
20	Buffalo Harbor Maintenance Dredging	Complete maintenance dredging of approximately 140,000 cubic yards of sediment within the Buffalo Harbor to maintain navigational channels. The harbor was last dredged in 2011-12.	Buffalo River	US Army Corp of Engineers	Federal	Not currently funded	TBD	Navigational Dredging	Unfunded by Congress
21	Buffalo River Watershed Study (Final Watershed Assessment)	Building off of an initial assessment completed in 2012, Phase 2 will develop a multi-agency strategic plan for recommending and implementing measures that will restore the beneficial uses of the Buffalo River.	Buffalo River, Buffalo Creek & Cayuga Creek	US Army Corp of Engineers	Federal	\$200,000	TBD	Data Collection & Research	Unfunded by Congress
22	Ellicott Creek, Lehn Springs (Williamsville, NY)	Study for the Determination of Federal Interest on erosion and flooding problems from the Lehn Springs Area of Glen Falls Park in Williamsville and impacting Ellicott Creek.	Ellicott Creek	US Army Corps of Engineers	Federal/Local	Not currently funded	TBD	Flood Control	Requires Local Match
23	Gallagher Beach Reconnaissance Study	Study for the Determination of Federal Interest in making improvements to Gallagher Beach for the purposes of storm damage reduction and shoreline protection. Beach is currently used to launch boats and smaller watercraft, public has a desire to see improvements at the beach, including sand replenishment.	Buffalo River	US Army Corps of Engineers	Federal	Not currently funded	TBD	Infrastructure Support	Unfunded by Congress
24	Observing Systems and Monitoring Nearshore Lake Erie	This project will increase the existing network of nearshore monitoring on Lake Erie with acquisition of three observational buoys to assess nutrients, energy and particulate fluxes between nearshore and open water zones at listed Great Lakes Areas of Concern, such as Ohio's Ashtabula River and New York's Buffalo River, including Cattaraugus Creek. An automated underwater vehicle will be used to monitor changes in water quality, hydrodynamic parameters and ice thickness. Results from this project will be used to validate work by the University of Michigan on a hydrodynamic forecasting model to predict impacts of environmental and climate change on Lake Erie. Real-time data will be available to Great Lakes stakeholders through a website.	Lake Erie	Buffalo State College Great Lakes Center	Federal	\$962,583	2010-2012	Data Collection & Research	Completed

25	The Lake Erie Nearshore and Offshore Nutrient Study	This project will assess the causes of nutrient-related problems in the Lake Erie central and eastern basins. It will quantify the major biotic and abiotic nutrient pools, rates of nutrient movement, and trophic pathways in the nearshore and offshore regions of Lake Erie. Additionally, data will be coupled with hydrodynamic models of particle transport and phosphate source tracking to assess whether the pools of nutrients in the nearshore and offshore regions follow predicted patterns of lake mixing models. The models will be used to determine where nutrients came from and how they move from the nearshore to offshore Lake Erie, providing information to managers on how and where to address excess nutrient input.	Lake Erie	Buffalo State College Great Lakes Center	Federal	\$615,813	2011-2014	Data Collection & Research	Completed
26	Hoyt Lake Restoration, Delaware Park, Buffalo NY (Phase 2)	Conducting Phase 2 Planning and Design towards restoring the ecological and historic integrity of Hoyt Lake and Scajaquada Creek within the City of Buffalo. Includes sediment characterization, remediation planning, and planning and design for habitat restoration.	Niagara River	US Army Corps of Engineers, Buffalo Olmsted Parks Conservancy	Federal & Local	\$400,000	2011-	Toxics Reduction & Habitat Restoration	Ongoing
27	Little River Harbor Dredging, Niagara Falls, NY	Periodic dredging is needed to maintain the recreational harbor of Little River in Niagara Falls, NY. The Harbor was last dredged in 1988.	Niagara River	US Army Corps of Engineers	Federal	Not currently funded	TBD	Navigational Dredging	Unfunded by Congress
28	Niagara River Ecosystem Restoration	The study will include a reconnaissance analysis for possible ecosystem restoration (reconstruction of fish and wildlife habitats, including islands and wetlands) along the US shoreline of the Niagara River.	Niagara River	US Army Corps of Engineers, Buffalo Niagara Riverkeeper, NYS DEC, Niagara River Greenway Commission	Federal, State & Local	\$100,000	TBD	Habitat Restoration	Unfunded by Congress
29	Niagara River Habitat Restoration	Niagara River Habitat Conservation Strategy identifies the most critical biodiversity features of the Niagara River Watershed and its major sub-basins, evaluating features in terms of current ecological health and also vulnerability. The Strategy provides a science-based, collaborative blue-print to guide future efforts and to protect and restore habitat values, species communities and ecological functions that define a healthy Niagara Watershed.	Entire Niagara River Watershed (11 Subwatersheds)	Buffalo Niagara Riverkeeper	Federal	\$243,936	2010-2014	Habitat Restoration	Completed
30	Niagara Falls, NY Wastewater Treatment Facility Improvements	Design and construction for upgrades to Niagara Falls, NY's Wastewater Treatment Facility. The plant has reached its 30 year useful life and requires upgrades and replacement to avoid system failure.	Niagara River	US Army Corps of Engineers, Niagara Falls Water Board	Federal & Local	\$5 Million	TBD	Infrastructure Support	Unfunded by Congress
31	NYPA Planning Assistance (Flooding Impact Study)	Study to evaluate the impact of flooding on threshold water levels within the Niagara River.	Niagara River	US Army Corps of Engineers, New York Power Authority	Federal & State	TBD	2014	Infrastructure Support	Ongoing
32	Grand Isle Ferry Landing	New York State Department of Environmental Conservation will acquire a 1 acre parcel within the Niagara River AOC. This parcel is one of the last undeveloped sections of shoreline that provides natural habitat for native fish, wildlife, and plant species.	Niagara River	NYS DEC	Federal & State	\$26,500	2011	Habitat Restoration	Completed
33	Scajaquada Creek Restoration Feasibility	Study looks at the feasibility of restoration needs for Scajaquada Creek corridor. Improvements would look at what's necessary to improve creek habitat, fish populations, and water quality.	Niagara River	US Army Corps of Engineers, Buffalo Niagara Riverkeeper	Federal & Local	\$50,000	TBD	Toxics Reduction & Habitat Restoration	On Hold awaiting results of current studies

34	New York Teachers Get WET for the Great Lakes	This grant will support two five-day academies and 14 "Get WET for the Great Lakes" institutes at which teachers will be provided with content and methods for conducting watershed education experiences relating to the Buffalo River, Niagara River, Eighteenmile Creek, and Rochester Embayment Areas of Concern in New York State. The project will target teachers from underserved schools and will empower teachers and students to protect fresh water resources through direct stewardship activities in their Areas of Concern. Following the training, teachers will receive support to help them integrate Great Lakes information into their curricula.	Buffalo River, Niagara River	Buffalo Niagara Riverkeeper	Federal	\$168,982	2011	Outreach & Education	Completed
35	South Park Lake, NY	The United States Army Corps of Engineers (USACE) is studying the feasibility of various alternatives to restore aquatic habitat in the 24-acre South Park Lake in Buffalo, NY.	Buffalo River	US Army Corps of Engineers	Federal	\$27,000	2010-	Habitat Restoration	Completed
36	Seaway Landfill Site (CERCLA Remediation)	The Seaway Landfill site in Tonawanda, NY needs additional capping and remedial work to address soils contaminated with radium, thorium, and uranium.	Niagara River	US Army Corps of Engineers	Federal	\$44.2 Million	2012-	Toxics Reduction	Ongoing
37	Cazenovia Creek, Ice Control Structure, West Seneca, NY	Repair the Ice Control Structure located on Cazenovia Creek in West Seneca. The structure provides an ice retention barrier to reduce downstream flooding.	Buffalo River	US Army Corps of Engineers, NYS DEC	Federal & State	\$500,000	TBD	Infrastructure Support	Agreements Phase
38	Town of Clarence Storm Modeling	The Town of Clarence requested planning assistance from the USACE to conduct hydrologic models for 5, 10, 25, and 50 year storm events based on the Town's current MS4 infrastructure. Models will be used to help assess solutions to flooding and drainage concerns.	Middle Tonawanda & Lower Tonawanda Creek	US Army Corps of Engineers, Town of Clarence	Federal & Local	\$100,000	TBD	Flood Control	On Hold
39	Guterl Steel Investigation, Lockport NY	Investigation includes a full remedial investigation, feasibility study, proposed plan and Record of Decision for the former Guterl Steel facility in Lockport, NY. The 70 acre site includes elevated levels of radionuclides.	Lower Tonawanda Creek	US Army Corps of Engineers, US Congress	Federal	\$10.9 Million	2010-	Toxics Reduction	Ongoing
40	Buffalo Outer Harbor	The United States Army Corp of Engineers (USACE) is studying the feasibility of various alternatives to restore aquatic habitat along the shoreline of Lake Erie within the Buffalo Harbor area in Buffalo, NY.	Buffalo River	US Army Corps of Engineers	Federal	\$50,000	2010	Habitat Restoration	Completed
41	Woodlawn Beach Pollution Source Identification & Remediation	This project will continue Woodlawn Beach sanitary survey work by conducting pollution source identification on Rush Creek, Blasdel Creek and Foster Brook. Remediation efforts will be conducted by studying various beach grooming techniques and other efforts to reduce pollution. Work conducted will improve beach water quality, recreational opportunities, public health protection of swimmers, and public education.	Smokes Creek	NYS Parks, Recreation & Historic Preservation	Federal & State	\$200,833	2010-2012	Data Collection & Research	Completed
42	Buffalo River Wetlands Restoration at Seneca Bluffs	Removal of invasive species, planting & landscaping restoration, improved facilities.	Buffalo River	Buffalo Niagara Riverkeeper, Erie County DEP	Federal	\$200,000	2013	Habitat Restoration	Completed

43	Buffalo River AOC Habitat Restoration - Riverbend Phase I	The RiverBend Habitat Restoration Project is the engineering and design, and implementation of habitat restoration along the Buffalo River, on the site of the former Republic Steel and Donner Hanna Coke facility, and is accessed via South Park Ave. The project is part of the greater RiverBend industrial park master plan, which is located within the South Buffalo Brownfield redevelopment area.	Buffalo River	Buffalo Niagara Riverkeeper	Federal	\$657,245	2014	Habitat Restoration	Completed
44	Buffalo River AOC Habitat Restoration - Riverbend Phase II	This project further supports the RAP to address stream water quality monitoring, river bottom sediments, inactive hazardous waste sites, municipal and industrial wastewater treatment facilities, combined sewer overflows, and fish and wildlife habitat issues in the Buffalo River Area of Concern. In particular, data will be collected on the degradation and loss of fish and wildlife habitat, the degradation of microscopic plant and animal populations, and the presence of excess levels of nutrients and algae.	Buffalo River	US Department of Commerce & NOAA	Federal	\$167,000	2013-2015	Habitat Restoration	Underway
45	Identification of Lake Sturgeon Spawning Habitat in the Lower Niagara River	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office will radio tag adult lake sturgeon for approximately one year to identify habitat use. These data will be used in conjunction with substrate mapping data to identify spawning habitat and prioritize management actions.	Niagara River	US Fish & Wildlife	Federal	\$65,000	2010	Data Collection & Research	Completed
46	Lake Sturgeon Assessment in the Niagara River	This project will assess the status of lake sturgeon populations in the Niagara River and Niagara Bar areas. Lake sturgeon will be captured, aged, and tagged (using PIT tags and radio transmitters). Mark-recapture analysis will be used to estimate abundance, survival and developing habitat preference models. This is a collaborative project between the U.S. Fish and Wildlife Service Lower Great Lakes Fish & Wildlife Conservation Office and the Northeast Fishery Center.	Niagara River	US Fish & Wildlife	Federal	\$120,000	2010	Data Collection & Research	Completed
47	Lake Trout reproduction and monitoring in the Niagara River area: genetic evaluation and movement study	The U.S. Fish and Wildlife Service will evaluate natural reproduction of lake trout to determine if hatchery strains being stocked are contributing to reproduction. This study will tag and monitor lake trout to identify spawning areas in the Niagara River and Niagara Bar, and use genetic difference between hatchery strains to evaluate natural reproduction to identify the source (hatchery to strain or wild) of the natural reproduction.	Niagara River	US Fish & Wildlife	Federal	\$240,000	2010	Data Collection & Research	Completed
48	Lower Great Lakes Lower Trophic Monitoring Program	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office will monitor and evaluate key lower trophic variables (phosphorus, chlorophyll a, secchi depth and zooplankton density and biomass) that characterize overall ecosystem change spatially, temporally and by habitat types. Collections will occur at 18 stations in Lake Erie and 12 stations in Lake Ontario from May through October. This project is conducted in partnership with State and Federal agencies and universities.	Lake Erie	US Fish & Wildlife	Federal	\$93,000	2010	Data Collection & Research	Completed

49	Buffalo River & Harbor Enhanced Navigational Dredging	Buffalo Harbor is a Federal navigation channel within the Buffalo River Area of Concern. The project involved the removal of approximately 450,000 cubic yards of contaminated sediments from the navigation channel in order to support the elimination of the dredging restriction Beneficial Use Impairment and delisting of the Area of Concern. The project also involved significant repairs and improvements to the Dike 4 Confined Disposal Facility to support its use for disposal of contaminated sediments from outside the navigation channel dredged as part of a Legacy Act project. FY10 funds were used to initiate construction of repairs and enhancements to the Dike #4 Confined Disposal Facility and to initiate dredging.	Buffalo River	US Army Corps of Engineers	Federal	\$50,000	Not Available	Navigational Dredging	Not Available
50	Anticipating Future Chemical Threats to the Great Lakes	This project will identify persistent and bioaccumulative contaminants that chemical monitoring and surveillance programs should analyze when testing fish, air and sediments in the Great Lakes. The project will focus on possible impurities, by-products, and degradation products/metabolites of commercial chemicals.	Lake Erie	SRC, Inc.	Federal	\$64,912	2010-2012	Data Collection & Research	Completed
51	Be Green in the Great Lakes	The Be Green in the Great Lakes project focused on outreach and education for the general public and land care businesses regarding alternatives to conventional synthetic pesticides and fertilizers. Four training sessions were held in August 2013 in the Great Lakes watershed. Educational brochures and web content were produced. See the Be Green in the Great Lakes Project and Pest Management Tips webpages for more information.	Lake Erie	NYS DEC	Federal	\$315,223	2010-2013	Outreach & Education	Completed
52	Fish Monitoring and Surveillance	This project will assess trends and identify emerging and legacy contaminants (identified in the Great Lakes Water Quality Agreement) at levels previously impossible to detect by monitoring fish from each of the five Great Lakes. Additionally, in collaboration with other state, federal, and international agencies, the project will assess transfer of contaminants from the water column through the food chain, expand the existing Great Lakes Fish Monitoring Surveillance Program (GLFMSP) analyte list to include important emerging contaminants, and provide better information for decision-makers regarding the health of the Great Lakes ecosystem.	Lake Erie	Clarkson University	Federal	\$2.75 Million	2010-	Data Collection & Research	Ongoing
53	Household Toxics Reduction through Consumer Education Pilot	This project will reduce toxic contamination of the Great Lakes from household cleaning products. The grant will support workshops promoting the use of nontoxic products and sustainable practices in communities throughout the Rochester Embayment, Niagara River, Eighteenmile Creek, and St. Lawrence River-Massena Area of Concern watersheds.	Niagara River	Rochester Institute of Technology	Federal	\$104,192	2011-	Outreach & Education	Not Available
54	Biomonitoring of Great Lakes Populations	The Agency for Toxic Substances and Disease Registry established programs with Minnesota, Michigan and New York health departments to measure environmental toxin levels in people (measuring toxins in blood & urine samples) who live in the Great Lakes basin. The purpose is to see if there is a higher amount of toxins in people with greater exposure to toxins, such as people who eat Great Lakes fish. This information will guide actions that the state health departments take to protect people.	Lake Erie	Department of Health & Human Services - Agency for Toxic Substances & Disease Registry	Federal	\$2.2 Million	Not Available	Data Collection & Research	Not Available

55	Aquatic Invasive Species Prevention & Monitoring in the Eastern Great Lakes Basin	This project involves both research and the planning and design of field demonstrations of technologies for eradicating invasive aquatic plants that are adversely impacting the quality and diversity of wetlands in the Great Lakes. Laboratory investigations of innovative technologies are being advanced with an emphasis on those that can control Phragmites. In addition, this project is conducting preliminary design of field demonstrations of various technologies for Phragmites control at multiple sites within the Great Lakes basin, including sites at selected Areas of Concern. FY10 funds were used to continue investigations at Cornell University of new insect biological control strategies as a long-term, sustainable management method against Phragmites australis, an invasive plant that threatens native wetland habitats. The work includes: 1) development of test procedures and conditions for host-specificity studies and data collection on host specificity of promising insect agents (4 shoot-boring moth species); 2) development of laboratory and greenhouse mass-rearing procedures; and 3) assessing the extent of hybridization between the native and introduced genotypes of phragmites.	Lake Erie	The Nature Conservancy	Federal	\$315,059	Not Available	Data Collection & Research	Not Available
56	Enhanced Fish Consumption Advisory in Buffalo Niagara Region	Improving fish consumption advisories and outreach in the Buffalo River Area of Concern and Niagara River Watershed. Current advisories will be revised to improve information uptake in High-risk communities. Local community and refugee outreach groups will collaborate in translating and distributing non-traditional outreach materials. This project will fill a significant gap in understanding fish consumption patterns of subsistence anglers to inform future education and policy efforts.	Buffalo & Niagara Rivers, Lake Erie	Buffalo Niagara Riverkeeper	Federal	\$224,997	2010	Education & Outreach	Completed
57	Niagara Street/Great Lakes Seaway Trail Green Street Project, Buffalo NY	Implementation of Green Infrastructure along Niagara Street within the City of Buffalo to reduce stormwater flows into the City's Combined Sewer System.	Niagara River	City of Buffalo Sewer Authority	Federal & Local	\$500,000	2013-2016	Non-point Source Pollution	Underway
58	Risk Assessment USFWS	This project will continue an aquatic invasive species risk assessment program to develop and implement a rapid screening process to assess the risk of establishment and significant, negative impacts of species: 1) imported and traded within the Great Lakes Basin and 2) That may benefit from Great Lakes habitat restoration and enhancement under the Great Lakes Restoration Initiative (As requested by other Federal, and Regional [e.g., Great Lakes Fishery Commission], State, Tribal, and local governments, industries, and nongovernmental organizations).	Great Lakes	US Fish & Wildlife	Federal	\$96,686	2011	Data Collection & Research	Completed
59	Niagara River Bird & Herptile Population Project	The purpose of this project is to evaluate delisting criteria related to birds and herptiles for the Degradation of Fish and Wildlife Populations Beneficial Use Impairment. Depending on the approach detailed in the work plan, the study will likely include reconnaissance and preliminary field work during CY2013. This is the first phase of a multi-year BUI evaluation project.	Niagara River	US Fish & Wildlife	Federal	\$200,000	Not Available	Data Collection & Research	Not Available

60	Reassessment of Niagara River Area of Concern Sources of Contamination	The grant will build upon previous studies and monitoring efforts (completed in the late 1980's to mid 1990's) to reassess point and non-point sources of priority toxic chemicals that have contributed to five of the seven Beneficial Use Impairments (BUIs) at the Niagara River Area of Concern (AOC). While considerable progress has been made by state and local regulatory agencies, a comprehensive reassessment is needed to determine whether delisting criteria have been met and to identify remaining sources of contamination. The sampling program will focus on hazardous waste sites, wastewater discharges and primary tributaries. The expected outcomes include reduction of toxic substances entering the Niagara River and the eventual removal of five of the seven BUIs present at this AOC.	Niagara River	NYS DEC	Federal	\$902,573	2011-	Data Collection & Research	Ongoing
61	Evaluating Ponto-Caspian Fish Species for Risk of Great Lakes Invasion	This project will identify "high-risk" fish species from the Ponto-Caspian region of Russia. Information obtained from this investigation will be used to evaluate the effectiveness of ballast water regulations against invasive species from the Ponto-Caspian. Informational materials will be developed to support early detection and monitoring initiatives in the Great Lakes.	Lake Erie	Buffalo State College	Federal	\$111,264	2010-2011	Data Collection & Research	Completed
62	Improving the Early Detection of Ponto-Caspian Fishes in the Great Lakes	SUNY- Buffalo State College will assess the invasive potential for high-risk Ponto-Caspian fish from European shipping ports. The college will then assess Great Lakes ports to identify high-risk locations and time periods that are a strong habitat match for these high-risk invasive fish. This data will be used to focus surveillance and early detection efforts for invasive Ponto-Caspian fish likely to adapt to the waters of the Great Lakes.	Lake Erie	Buffalo State College	Federal	\$99,756	2012-	Data Collection & Research	Not Available
63	Beach Forecasting Model and Weather Station Network	This project will establish weather station networks with real-time internet data retrieval at five northeast Lake Erie beaches and associated streams. These networks will be validated by water quality sampling results and will make existing preemptive beach closure procedures more accurate and precise. This will allow beach managers to protect human health by making more informed decisions.	Lake Erie	Erie County	Federal	\$91,440	2010	Data Collection & Research	Completed
64	Sanitary Surveys and Website for Beach Water Quality Information	In this project, 38 bathing beach sanitary surveys will be conducted on the St. Lawrence River, Lake Ontario, and Lake Erie. Site assessments will be performed to identify sources of pollution. Results will be used to direct remediation efforts to improve water quality, reduce bather exposure to pollution, and prevent potential illness. A publicly accessible web-based system with real-time water quality information for all Great Lakes beaches will also be developed.	Lake Erie	Health Research, Inc.	Federal	\$850,000	2010	Data Collection & Research	Completed
65	Sanitary Surveys: Lake Erie, Lake Ontario, Niagara River NY State Parks	Sanitary surveys will be conducted at seven beaches located on Lake Erie, western Lake Ontario, and the Niagara River. The sanitary surveys will identify hydrological conditions, primary pollutants and their source locations. Information generated will be used to improve understanding of contamination problems and implement steps toward beach remediation.	Lake Erie, Niagara River, Smokes Creek	NYS office of Parks, Recreation & Historic Preservation	Federal	\$250,000	2010	Data Collection & Research	Completed
66	Characterization of the Niagara River larval fish community	The U.S. Fish and Wildlife Service Lower Great Lakes Fish and Wildlife Conservation Office will sample juvenile and larval fish using a variety of methods in several habitat types (wetlands, backwater and open flow areas) in the Niagara River from May-September 2011. Sampling methods include drift nets, ichthyoplankton nets, light traps, minnow traps, trawling and larval seines. Species diversity information will help guide management decisions on the Niagara River.	Niagara River	US Fish & Wildlife	Federal	\$47,000	2010	Data Collection & Research	Completed

67	Evaluation of Niagara River BAR Benthic Habitat Using Side Scan Sonar and GIS Modeling	The U.S. Fish and Wildlife Service Lower Great Lakes Office is restoring lake trout and lake sturgeon through substrate classification in the Niagara River. Side scan sonar mapping and GIS techniques, coupled with field validation and underwater video, will be used to evaluate habitat. They will assess 22 miles of habitat in the upper river, 8 miles of habitat in the lower river, and 12 square miles of the Niagara bar. Information will be used to prioritize habitat protection.	Niagara River	US Fish & Wildlife	Federal	\$108,000	2010	Data Collection & Research	Completed
68	Avian Habitat Restoration at Joseph Davis State Park (NY)	This project will restore at least 35 acres of shrub habitat in need of restoration, making it a highly productive habitat for native pollinators, breeding birds, and migrating birds reliant on fruits from native shrubs. Buffalo Audubon Society and partners will restore and enhance 85 acres of critical bird habitat at Joseph Davis State Park along the Upper Niagara River Corridor. Through invasive species control and seeding and planting of native vegetation, the project will benefit priority bird species by improving forested wetland, scrub-shrub wetland and shrub/scrub early successional habitats throughout the park. This work will address habitat-related Beneficial Use Impairments and contribute to the delisting of the Niagara River Area of Concern by helping to reverse the loss of bird habitat.	Niagara River	Buffalo Audubon Society	Local, Federal	\$200,000, \$360,031	2010-2011	Habitat Restoration	Completed
69	Buffalo River Sediment Transport Model	The project developed a Sediment Transport Model for the Buffalo River to assist state and local agencies with the planning and implementation of measures for soil conservation and non-point source pollution prevention.	Buffalo River	US Army Corps of Engineers	Federal	Not Available	Not Available	Erosion & Non-point Source Pollution	Completed
70	Buffalo River Sediment Remediation & Habitat Restoration (Phase 1)	Buffalo Harbor is a Federal navigation channel within the Buffalo River Area of Concern. The project involved the removal of approximately 450,000 cubic yards of contaminated sediments from the navigation channel in order to support the elimination of the dredging restriction Beneficial Use Impairment and delisting of the Area of Concern. The project also involved significant repairs and improvements to the Dike 4 Confined Disposal Facility to support its use for disposal of contaminated sediments from outside the navigation channel dredged as part of a Legacy Act project. FY10 funds were used to initiate construction of repairs and enhancements to the Dike #4 Confined Disposal Facility and to initiate dredging.	Buffalo River	US Army Corp of Engineers/Great Lake Legacy Act	Federal	\$9 Million	2012	Navigational Dredging & Habitat Restoration	Completed
71	Buffalo River Restoration & Habitat Restoration (Phase 2)	Legacy Act dredging and disposal of (non-navigation channel) contaminated sediments from the Buffalo River Area of Concern, including capping of the Union Ship Canal sediments. Following dredging and capping elements, the project will backfill into specific areas of the Buffalo River Area of Concern and Union Ship canal to restore in-water habitat environments (Regional Sediment Management).	Buffalo River	US Army Corp of Engineers	Federal	\$44 Million	2013-2015	Navigational Dredging	In Progress
72	Athol Springs Seawall Protection, Hamburg NY	Complete design and implementation planning for the seawall along Route 5 at Athol Springs area of Hamburg, NY. The seawall is deteriorating and lake storms significantly impair driving ability along Route 5.	Smokes Creek	US Army Corps of Engineers, NYS DOT , Town of Hamburg	Federal	\$1.684 Million	2012-	Infrastructure Support	In Progress
73	Smokes Creek Restoration	Feasibility study to restore ecosystem function at the mouth of Smoke's Creek, where sedimentation has degraded a critical fish spawning habitat. Study will look at dredging and creation of additional wetland and riparian habitat to restore creek corridor.	Smokes Creek	US Army Corp of Engineers, City of Lackawanna	Federal	TBD	2012-	Habitat Restoration	Planning
74	Stormwater Mapping Project (Erie & Niagara Counties) - Phase 1	Mapping the stormwater conveyance systems of Municipal Separate Storm Sewer Systems using GIS.	MS4 Communities within Erie & Niagara Counties	NYS DEC, Erie County Department of Environment & Planning	County	Not Available	2015	Data Collection & Research	Ongoing

75	Rush Creek Interceptor Project	Project to eliminate the Blasdell Wastewater Treatment Plant & sanitary overflows to area creeks	Smokes Creek	Erie County Division of Sewerage Management	County	Not Available	2014-2015	Water Quality	Underway
76	Elimination of Lackawanna Wastewater Treatment Plant	Project to improve wastewater treatment & increase wastewater capacity in the Buffalo & Lackawanna waterfronts	Smokes Creek	Erie County Division of Sewerage Management	County	Not Available	Not Available	Water Quality	Not Available
77	Permeable Pavement Project	The Village of Williamsville is undertaking a Green Infrastructure project on East Spring Street including road construction with permeable pavement and rain gardens to capture run-off prior to discharging to Ellicott Creek in Glenn Park	Ellicott Creek	Village of Williamsville	Not Available	\$1 Million	2014 -	Non-point Source Pollution	Underway
78	Concord Wastewater Infrastructure Project	Consolidation of Kissing Bridge and Crane Ridge subdivisions' waste water treatment plants	Buffalo River	Town of Concord	State	\$50,000	2014 -	Water Quality	Underway