

EIGHTEENMILE CREEK REMEDIAL ACTION PLAN COORDINATION

SEMI-ANNUAL PROGRESS REPORT

08/01/2010

Project No. GL 972925-07-1

ACCOMPLISHMENTS TO DATE

On January 1, 2007, the Niagara County Soil and Water Conservation District (NCSWCD) began its five year commitment to continue with the coordination and management of the Eighteenmile Creek Remedial Action Plan. Much work has been accomplished during this reporting quarter. The following list of deliverables reflects project direction and activities completed between 2/1/2010 and 7/31/2010.

- Submission of EPA Form 5700-52 A, "MBE/WBE UTILIZATION UNDER FEDERAL GRANTS, COOPERATIVE AGREEMENTS, AND INTERAGENCY AGREEMENTS" to EPA Region 2 for the second (Jan-Mar) and third (Apr-Jun) reporting quarters.
- A good deal of time has been invested in the planning and implementation of a Great Lakes Legacy Act investigation project for Eighteenmile Creek. After reviewing the results of the 2009 sampling effort and discussing other selection factors, 35 samples were selected for PCB congener analysis. The rationale for selecting (or not selecting, as the case may be) the individual samples included: location of sample; depth of sample and targeted concentration and; the value of the concentration. The group started by looking at the samples with aroclor concentrations between 0.5ppm and 1.5 ppm total PCBs because we are focusing on this "gray zone" - where we are not sure if a sample may be toxic based on just the chemistry, and then included in the list the samples with the highest PCB concentrations so that we can see if these concentrations are made up of the more toxic of the congeners or not. It was also observed to see that we had a good representation of each of the project reaches that were sampled. Samples with low Total Organic Carbon (TOC) were also chosen because of the higher potential of these contaminants being bioavailable.

Sampling of the deeper water areas behind Burt and Newfane Dam was also completed in the spring of 2010. Sediment sampling within the Burt Dam impoundment was conducted along five cross-sectional transects (i.e., perpendicular to the creek's flow). Aerial photographs, historical dam records, and bathymetric survey data were reviewed to select specific placement of all transects. Sampling was performed via vibracoring. Each transect included three coring locations, including the right bank of the historical creek channel, the left bank of the historical creek channel, and the center-point of the creek or from the deepest part of the creek as determined by the bathymetric survey. The first transect was located approximately 200 feet upstream of the dam in order to avoid the geotextile that, according to Niagara County, extends 80 feet upstream of the dam. The other four transects were evenly spaced throughout the impoundment area. Continuous cores were collected from the top of the sediment to refusal. Samples were collected from the surface sediments (0 to 1 foot) and in 2-foot intervals thereafter. Only 50 percent of the samples were submitted for chemical analysis; the remaining samples were archived and may be analyzed at a later date. The top and bottom interval were analyzed at all locations. In total, 70 samples were submitted to the lab for analysis.

Sediment sampling above and below the Newfane Dam was conducted along eight cross-sectional transects (i.e., perpendicular to the creek's flow). The investigation for this impoundment area included surface and subsurface sediment characterization and was based on the existence of outfalls that may have contributed contaminants in addition to PCBs and the potential for the dam to be removed in the future. The thick sediment layer indicated a higher potential for contamination to be present throughout the sediment profile.

Sediment core sampling was performed via vibracore. Aerial photographs were reviewed to assist in selecting sampling locations. Two transects were established, one upstream of the dam and another one 600 feet upstream. Three coring locations were established along each transect consisting of a left bank, right bank, and in the center. Additional coring locations were sited along the reach at areas where deep sediments were observed during the reconnaissance survey and in the tributary on the east side of the creek. Locations also were chosen near an observed obstruction and outfall. Vibracoring was continuous from the top sediments to refusal. Samples were collected at the surface (0 to 1 foot) and from each 2-foot interval thereafter until refusal. Due to the lack of historical data, all the samples collected from this area were submitted for chemical analysis. In total, 90 samples were submitted to the lab for analysis.

Additional field sampling of the creek channel, tributaries, wetlands and historic creek channels using hand coring was also completed in the spring of 2010. These shallow water areas were assessed in 2009 by the Legacy Act contractor. However, after reviewing the collected data it was determined that additional sample collection was needed to fully characterize these areas. In total, an additional 123 samples were collected and submitted to the lab for analysis.

- NCSWCD has entered into a project agreement with the U.S. Army Corps of Engineers (USACE), Buffalo District and their Engineer Research and Development Center (ERDC) in Vicksburg, MS to complete a Trophic Trace Food Web Study for the Eighteenmile Creek AOC. Utilizing USACE assistance identified under Section 401 (a) of the Water Resources Development Act of 1990, \$539,000 have been secured to complete the project, which would assist in determining the current status of numerous use impairments to the creek. The data collection phase of the project has been completed. All available data relevant to historical pesticides, Dioxins, and PCBs will be included in the database, as these are the contaminants that will be modeled.

On 6/3/10, the PI led a site tour of the AOC for the project team, federal, state and county agency representatives, and Remedial Advisory Committee (RAC) members. Later in the day, a full RAC meeting commenced where the project team was able to present an overview of the project, database development and visualization, and the food web modeling effort within the framework of a conceptual site model. The USACE ERDC team also presented a completed data gaps analysis for review by the group. The analysis recommended that fish contaminant sampling upstream and downstream of the Burt Dam be completed so that the model can be calibrated properly. The project team has been working with U.S. Fish & Wildlife Service, Lower Great Lakes Fish and Wildlife Conservation Office, to develop a fish sampling plan and actually collect the samples for analysis in the fall of 2010.

- The PI has also been working with USACE, Buffalo District, NYS Department of Environmental Conservation (DEC) and other New York State RAP Coordinators in an attempt to craft a collaborative NY AOC project which would provide each AOC with remedial strategies to delist Beneficial Use Impairments (BUI). A collective effort to complete this work was deemed not feasible. However, individual AOC projects are proceeding with USACE assistance. The effort to complete a BUI delisting strategy for Eighteenmile Creek will be completed under the larger effort of a Western Lake Ontario Watershed Management Plan. The USACE funded project will include an Eighteenmile Creek strategy as an appendix to the larger plan. A scope of work has been completed and plan development is expected to commence in the summer of 2010.

- Great Lakes Restoration Initiative (GLRI) funding opportunities have been a major focus of the Eighteenmile Creek AOC. We have been collaborating with the State of New York and their efforts to bring NY stakeholders together, in an effort to spawn new partnerships and minimize a duplication of efforts across the State. Many conference calls and meetings were convened specific to each subsection identified in the EPA GRLI request for proposals. The groups focused on what types of projects should be submitted from NY for each project category. As a result, NY had an impressive number of project submittals to the GLRI, spanning across most focus areas.

The PI also assisted with the development of proposals submitted to EPA from the Finger Lakes – Lake Ontario Watershed Protection Alliance (FL-LOWPA). Since FL-LOWPA is a Lake Ontario Basin wide organization, proposals submitted focused on the basin level and the 4 Lake Ontario AoCs. Basin-wide proposals were submitted which focused on the completion of agricultural Best Management Practices (BMP) and the control and eradication of invasive species. The agricultural BMP project was chosen for funding. The “Improving Water Quality in the Lake Ontario Basin” project will identify and remediate high priority areas that contribute sediment, excessive nutrients and priority pollutants to the lake. Anticipated results include: significant reductions in soil erosion and sediment, nutrient, and pollutant loading to Lake Ontario from farm operations. Additionally, farm operators will learn about the use of cover crops and have access to conservation tillage equipment to reduce soil erosion.

NCSWCD also submitted a proposal to EPA which focused on public education, outreach and participation in the Lake Ontario Basin. This project was also chosen for funding. The project focuses on identifying and strengthening the partnership between the RAPs and the Lake Ontario LAMP. We plan to actively engage residents, schools and communities in the implementation of the public education, outreach and community participation necessary to effectively administer the Lake Ontario LaMP and Lake Ontario AOC RAPs. Through the development of a community-based public involvement program that brings decision makers, residents, schools and communities together, the public will be provided with opportunities to provide input and a sound understanding of the complex problems facing Lake Ontario and its four U.S. Areas of Concern. The project will include: lesson plan development and student education activities; LaMP-RAP outreach materials; educational displays; Lake Ontario public forums and; numerous community participation events.

A good deal of time has been invested developing project work plans and application materials for submittal to USEPA. The intergovernmental review process was also completed for these projects, as per Executive Order 12372.

- The PI has been coordinating with Bird Studies Canada (BSC) as the regional coordinator of the Marsh Monitoring Program for Western New York. In addition to coordinating all local volunteers, the PI also monitors wetlands for amphibians. The 2010 monitoring season is now complete and all monitoring data has been compiled and submitted to BSC for review and acceptance. NCSWCD also worked with BSC to plan and implement a training session in Western New York for marsh monitoring volunteers. Individual field trainings were also conducted by the PI for new volunteers who are monitoring in the Eighteenmile Creek watershed.
- On June 9, 2010, the annual Newfane Environmental Fair took place within the AOC. The Fair included a number of learning stations including, AOC History, Aquatics, Wildlife Rehabilitation, Lake Ontario Water Facts, archery, and many more. The fair was attended by approximately 150 third and fourth grade students. Photos of the event have been included at the conclusion of this report.
- NCSWCD has been working with the Town of Newfane to construct an Invasive Species Boat Wash

Pad for Olcott Harbor. The pad is intended to be used by boaters before and/or after using their boat in Eighteenmile Creek and Lake Ontario. The goal is to stop the spread of various invasive species to and from the waters of Eighteenmile Creek and Lake Ontario. Boaters will be able to assure that no invasive species are attached to their boats prior to entering Eighteenmile Creek, limiting the threat of introducing new invasive species to the ecosystem. Conversely, when boaters remove their boats from Eighteenmile Creek, they can assure that no invasive species will be introduced to the next body of water used for recreation purposes. The NCSWCD engineer assisted with a design for the boat wash pad and construction oversight. Photos of the boat wash pad are included with this report.

- On June 29-30, 2010, the PI participated in four Quality Management Training session conducted by USEPA. The training was provided to foster awareness of EPA’s quality system and train EPA staff and collaborators on quality implementation for EPA-funded projects. Training was provided on two topics in two separate training modules: 1) Preparing Project-level Quality Documentation and 2) Reviewing Project-level Quality Documentation. In addition to the instructional sessions, the PI participated in the two interactive sessions as well.

- The PI has been working with the Great Lakes Commission (GLC) and other NY RAP partners in an effort to prepare for the 2010 annual AOC meeting in Buffalo, NY. The PI assisted the GLC in providing photos for inclusion the conference flyer, mailing lists for AOC partners and RAC members, and provided ideas for topics that would like to be discussed at the conference/training that would be useful for the AOC. Also, a survey of RAP activities was completed for the conference relative to Eighteenmile Creek. The survey is intended help conference attendees and RAP partners understand the status of restoration work in the Eighteenmile Creek AOC and specific challenges we are facing and the types of support we need to make progress in restoring our impaired beneficial uses. The survey will be distributed to all meeting participants and will supplement presentations during various break-out sessions. The PI also spent some time reviewing the Lake breakout session agenda and provided suggestions for specific issues to be addressed during the sessions.

- On July 8, 2010, the PI attended the 4th New York Great Lakes Area of Concern workshop which was held in Massena, NY. The purpose of the workshop was to: provide an understanding of the condition of the St. Lawrence River, Massena, AOC; receive updates on the status of delisting progress at NYS AOCs and at the St. Lawrence River, Cornwall AOC; finalize the NYSAOC guidance document; receive updates on GLRI funding; get a status of Natural Resource Damages Assessment program; learn how the NYS RIBS program can help delisting; hear about the new Army Corps of Engineers BUI remedial strategy project; and learn about the Haudenosaunee Perspective on the environment in NYS AOCs and the Mohawk Nation perspective on St. Lawrence River AOC.

PROJECT WORK SCHEDULE

Activities	% Completed
• COORDINATION OF EXISTING EFFORTS & PROJECTS AIMED AT ELIMINATING BUIs-----	ONGOING
• SEEK FUNDING TO IMPLEMENT VARIOUS UNFUNDED RAP INITIATIVES-----	ONGOING
• MANAGE DATA IN SUPPORT OF RAP IMPLEMENTATION & DELISTING EFFORTS-----	ONGOING
• COORDINATION WITH THE WNY STORMWATER COALITION-----	ONGOING

- COORDINATION WITH THE LAKE PLAINS RC&D-----ONGOING
- COORDINATE WITH ALL FORUMS RELATED TO RAP, LAMPS, AND GLRC-----ONGOING
- COORDINATION AND OVERSIGHT OF THE NCWQCC-----ONGOING
- OVERSIGHT OF COUNTY WATER QUALITY MONITORING PROGRAMS-----ONGOING
- COORDINATE WATERSHED STAKEHOLDERS IN THE PURSUIT OF COMPLETING A CWMP-----ONGOING
- QUARTERLY WEBSITE UPDATES----- ONGOING
- COMPLETE STORMWATER OUTFALL MAPPING-----90%
- ESTABLISH UPDATED REMEDIATION AND MONITORING STRATEGY FOR ALL BUIs -----50%
- OUTREACH ACTIVITY – ENVIRONMENTAL FIELD DAYS -----100%
- PROGRESS REPORT-----100%

PROJECT OBJECTIVES

<u>Activities</u>	<u>% Completed</u>
1. Continued coordination/management of the Remedial Action Plan (RAP) for the Eighteenmile Creek Area of Concern and the Remedial Advisory Committee	Ongoing
2. Research and evaluate the following Beneficial Use Impairments: <ul style="list-style-type: none"> ○ (3) Degradation of fish and wildlife populations ○ (4) Fish tumors or other deformities ○ (5) Bird/Animal deformities or reproductive problems 	100%
3. Complete a full Stage 2 Eighteenmile Creek RAP document to reflect research conducted and priorities established since 1997.	35%
4. Establish an updated remediation strategy for all impaired beneficial uses and the development of monitoring protocol necessary for delisting.	50%
5. Actively pursue resources to develop and implement Eighteenmile Creek RAP initiatives.	Ongoing
6. Continue local coordination of Eighteenmile Creek projects and identify and develop programs to address current data gaps or needed RAP initiatives.	Ongoing

7. Coordinate with other Great Lakes programs and agencies such as the Lake Ontario LAMP, International Joint Commission (IJC), EPA-GLNPO, EPA Region 2, Great Lakes Commission (GLC), and the Great Lakes Regional Collaboration (GLRC).

Ongoing

PROJECT FUNDING RATE

The following is a breakdown of budgeted dollars that have been spent between 2/1/2010 and 7/31/2010. It is apparent that the project funding rate does support project progress.

	<u>FEDERAL</u>	<u>NON-FEDERAL</u>
February 2010	\$ 3,736.66	\$0
March 2010	\$ 4,702.39	\$0
April 2010	\$ 3,835.89	\$0
May 2010	\$ 4,156.07	\$0
June 2010	\$ 4,626.56	\$0
July 2010	\$ 5,144.19	\$0

Total Federal Share = \$26,201.76



STUDENTS LEARN ABOUT AQUATIC ORGANISMS AT NEWFANE ENVIRONMENTAL FAIR



STUDENTS LEARN ABOUT DANGERS TO WILDLIFE AT NEWFANE ENVIRONMENTAL FAIR



STUDENTS LEARN ABOUT THE AOC AT THE NEWFANE ENVIRONMENTAL FAIR



CONSTRUCTION OF INVASIVE SPECIES BOAT WASH PAD AT OLCOTT HARBOR



COMPLETED INVASIVE SPECIES BOAT WASH PAD AT OLCOTT HARBOR