Phase II Stormwater - Information Technology (IT) Program

Final Report

November 2011

Prepared by the Herkimer-Oneida Counties Comprehensive Planning Program

For the New York State Department of Environmental Conservation

American Recovery and Reinvestment Act (ARRA)
Clean Water Act Section 604(b)

Final Report

Prepared for the New York State Department of Environmental Conservation

Project/Organization Information

Project Information

Project Name	Phase II Stormwater - Information Technology (IT) Program		
Primary Project Type	Phase II Stormwater for Municipal Separate Storm Sewer Systems (MS4s) and Construction Planning		
State Contract Number	C304264		
Project Start Date	Jul 1, 2009	Project End Date	Nov 1, 2011
ARRA Award Amount	$95,000.00	Total Project Cost	$95,000.00

Organization Information

Name	Herkimer-Oneida Counties Comprehensive Planning Program				
Address 1	321 Main Street				
Address 2					
City	Utica	State	New York	Zip Code + 4	13501-
Telephone	315-798-5710	Fax	315-798-5852		
E-mail	jbreiten@ocgov.net	Website	http://www.ocgov.net/oneida/planning		

Report Preparer

Name	Jessica Breiten		
Job Title	Chief Planner		
Telephone	315-798-5710	E-mail	jbreiten@ocgov.net

Introduction

Project Introduction & Description

The primary purpose of the project should be described, along with a general overview of major project goals and outcomes. Affected bodies of water and project locations should also be noted.

The primary purpose of the Herkimer-Oneida Counties Comprehensive Planning Program's (HOCCPP's) “Phase II Stormwater - Information Technology (IT) Program” was three-fold. The project emphasized and incorporated information management, current technology, planning assistance, and GIS mapping to better enable and provide various types of support to communities regulated under the Phase II Stormwater program.

The first element of the project included a statewide outreach and training component. HOCCPP provided for the coordination and availability of planning support for the statewide release, training, use, and continued refinement associated with the Digital Towpath Stormwater Module. The module was previously developed by HOCCPP and SUNY-Institute of Technology as an integrated web-based information management system to assist MS4s statewide in meeting ALL requirements of the Phase II Stormwater Program.

The second element of the project included the development of a regional storm sewer system mapping and information management system. HOCCPP developed and applied a regional storm sewer system mapping protocol and provided three MS4s in the region with GIS mapping of all storm sewer features including outfalls, catchbasins, and conveyances. The protocol incorporated feature data into a computer based information management system that allowed MS4s to use, manage, track and update data at the local level.

The third element of the project included the development of a regional storm sewershed delineation protocol. Following the development of the protocol, HOCCPP provided MS4s in the region with enhanced GIS mapping of storm sewersheds at a scale that allows for delineation and management of sub-sewersheds associated with each outfall.

Summary of Activity

Objectives, Tasks, & Outcomes

Work plan objectives should be clearly linked to final project outcomes. For each objective listed on the work plan, a brief summary of the tasks and activities should demonstrate how project deliverables and outcomes have accomplished that objective.

Objective

Coordinate and provide planning support and assistance related to the DTP Stormwater Module.

Task Summary & Project Outcomes

Task 1 - Stormwater Module Release: Developed information necessary for the statewide release of the Digital Towpath Stormwater Module. Included notification to 500+ MS4s statewide, developed and distributed summary brochures and fact sheets regarding module use, function and content. Developed and published the Stormwater Module User Manual and an on-line help program.

Task 2 - Statewide Workshops: Completed necessary planning, meeting logistics, and implementation related to five (5) statewide workshops to introduce the DTP Stormwater Module. Activities included: developing a fully automated, narrated audio/video presentation; developing and publishing a workshop brochure and registration form; providing for an on-line registration and workshop information site; and developing and reproducing workshop handouts and information packets.

Task 3 - Stormwater Module Refinement and Enhancement: Refined and enhanced the Stormwater Module to better meet the needs of regulated MS4s. Held Stormwater Module Working Group meetings to identify weaknesses or additional needs of users and modified the module to accommodate those needs.

Task 4 - MS4 Stormwater Module Assistance: Provided direct assistance to MS4s within the region and statewide to populate the various module sections. Specific activities included notification to MS4s regarding the availability of assistance, provision of hands-on training sessions, and provision of direct assistance in populating SW Module sections where required.

Objective

Develop and apply a regional storm sewer system mapping protocol and information management system.

Task Summary & Project Outcomes

Task 1 - Stormwater Mapping Protocol: Developed a standardized protocol for completing storm sewer system mapping within the region. The protocol included standards and recommendations for the collection of data associated with SW outfalls, catchbasins and conveyances.

Task 2 - Stormwater System Mapping: Assisted those MS4s within the region who expressed interest to complete storm sewer system mapping. Specific activities included GPS field data collection, post-processing and map generation. A portion of the funding allowed the collection and completion of detailed stormwater system mapping in three MS4s.

Task 3 - Information Management System: Incorporated information and mapping associated with each system feature into a computer-based information management system. This provided for the development and linkage of the data management system and mapping to assist MS4s in use, management and update SW program requirements such as IDDE and outfall reconnaissance.

Task 4 - MS4 Training: Trained MS4s in how to use the information management program to manage, track, update and undertake activities associated with Phase II requirements. Conducted hands-on training sessions with each of the MS4s on use of mapping and data management system.

Objective

Develop and apply a regional storm sewershed mapping protocol.

Task

Task 1 - Sewershed Mapping Protocol: Developed a standardized protocol for completing storm sewershed

Summary & Project Outcomes	mapping within the region. The mapping protocol was used to define specific, localized stormwater system sewersheds at a scale to promote use for outfall reconnaissance and IDDE track down. Various tools were used to define sewersheds such as LiDAR information in combination with total system mapping. **Task 2 - Stormwater Sewershed Mapping:** Assisted interested MS4s within the region to delineate and complete storm sewershed mapping. Specific activities included detailed data analysis and review of system mapping.

Problems Encountered/How Solved

A comprehensive summary of any problems encountered during the life of the project and how those problems were resolved should be listed. The list should include any information reported in the "Problems Encountered/How Solved" box on the Quarterly Report Cover Pages throughout the project.

While undertaking system mapping, the presence of uncleaned catchbasins sometimes made it difficult to identify inlets and outlets to that feature. In some cases, debris and sediment obscures part of the feature and made it difficult to confirm the number of inlets/outlets, pipe size, condition, direction of flow, etc. A general lack of any documentation of as-built system features was also problematic. .

Also while undertaking stormwater system mapping assistance, the stormwater system within the Village of NY Mills proved to be unlike any other mapped system in the region. The Village is an old industrial community with underlying hydraulic canals that once fed the numerous mills. In some cases, these features are undocumented but may have been part of the old stormwater system. These unexpected system characteristics resulted in the need for additional staff time in field collection, research, and data interpretation. However, even with additional staff resources not all system features could be found and a few system features were identified as “estimated” since they are assumed to be buried with no identifiable surface feature or existing construction/as-built drawings. Excavation equipment would be required to properly locate these features and was beyond the scope of this project. The municipality will be responsible for locating these features in the future and, once done, they will be added to the data system.

Due to the need to spend additional resources in one community, it was recognized that the remaining budget would likely not provide enough funding to fully complete system mapping within the last mapped community. Especially since the Town of Whitestown will likely contain over 2000 stormwater system features. ARRA funding was used to complete 95% of the system mapping in the regulated MS4 area and the Town of Whitestown committed to provide additional funds necessary to complete the mapping once ARRA funding was fully expended.

Changes to Project Work Plan

Any changes that were made to the project work plan during the life of the project should be noted, including a brief description of why the changes were necessary.

No significant changes to the Project Work Plan were required. Only very minor adjustments and refinement of general work plan activities occurred throughout the project. The project has been completed ahead of schedule.