

Susquehanna Action Plan for the Chemung and Susquehanna Basins in New York

Final Report

February 2012

Prepared by the Southern Tier Central Regional Planning and Development Board

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	Susquehanna Action Plan for the Chemung and Susquehanna Basins in New York		
Primary Project Type	Water Quality Management Planning		
State Contract Number	C304266		
Project Start Date	Jan 1, 2010	Project End Date	Feb 17, 2012
ARRA Award Amount	\$285,000.00	Total Project Cost	\$285,000.00

Organization Information

Name	Southern Tier Central Regional Planning and Development Board				
Address 1	8 Denison Parkway East				
Address 2	Suite 310				
City	Corning	State	New York	Zip Code + 4	14830-2653
Telephone	(607) 962-5092	Fax	(607) 962-3400		
E-mail	stcrpdb@stny.rr.com	Website	www.stcplanning.org		

Report Preparer

Name	Janet Thigpen, CFM			
Job Title	Flood Mitigation Specialist			
Telephone	(607) 737-5271	E-mail	jthigpen@co.chemung.ny.us	

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.

Susquehanna-Chemung Action Plan

The purpose of this planning project was to create a watershed management plan for the Susquehanna and Chemung River Watersheds in New York. An “ecosystem-based management” approach was used to integrate human needs, economic issues, and environmental concerns. This type of planning recognizes that people are important parts of any ecosystem and that ecosystems are critical in supporting human life. The objective was to provide a unified vision for the region's water resources and promote funding for projects that benefit the watershed's residents.

The Susquehanna and Chemung Watersheds constitute the New York headwaters of the Chesapeake Bay. This 6,250 square-mile area covers portions of nineteen New York counties in the Southern Tier Region of New York. Water quality in this watershed is generally good. However, downstream impairment of the Chesapeake Bay is resulting in requirements for additional improvements to the quality of water leaving New York (for the Chesapeake Bay Total Maximum Daily Load (TMDL) remediation plan). The Susquehanna-Chemung Action Plan integrates these downstream concerns with local economic and water resource issues (such as flooding) to present recommendations that benefit the regional economy and the quality of life in New York.

In order to be relevant and useful, the *Susquehanna-Chemung Action Plan* was developed cooperatively with individuals and organizations representing diverse interests from throughout the watershed. The *Action Plan* builds on and integrates recommendations from numerous existing plans on a variety of topics. Additional stakeholder input and suggestions were sought throughout the planning process in order to incorporate their priorities, objectives, and ideas. Engaging partners in development of the *Action Plan* also served to promote increased coordination for future implementation of *Action Plan* recommendations.

The *Action Plan* is supported by an abundance of watershed information and site-specific recommendations. Existing reports, data, maps, and plans were assembled on the project's website, www.susquehanna-chemung.org. A separate page for each *Action Plan* topic provides links to existing data and plans and includes a resource library for accessing the most relevant information and programs to support *Action Plan* implementation. An online Susquehanna-Chemung Data Atlas has a customized data viewer that enables access to map-based information (<http://stcgis.org/SCAtlas/>).

The resulting Susquehanna-Chemung Action Plan lays the foundation for coordinated efforts to promote sustainable water stewardship throughout the watershed.

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

1. Develop an ecosystem-based management plan for the Chemung and Susquehanna Watersheds of New York.

Task Summary & Project Outcomes

The final *Susquehanna-Chemung Action Plan* is available at www.susquehanna-chemung.org. It presents a vision and eleven goals for the watershed. The *Action Plan* encompasses water resource concerns related to the following key issue areas:

- water quality & quantity,
- economic development,
- land use,
- streams & rivers,
- flood hazards,
- runoff,
- roads,
- agriculture & forestry,
- plants & wildlife,
- outdoor recreation, and
- education & research.

For each of these issues, the *Action Plan* presents a goal, summarizes the challenges, and presents recommended actions. It also suggests measures that can be used to track progress on implementing each recommendation. It is not a work plan for any single organization. Instead it assimilates and builds on the plans, programs, and ideas of many partners and encourages continued coordination of efforts. An Implementation Strategy identifies key partners for implementing recommendations and providing regional coordination. It also presents a process for annual evaluation of progress, revisions if warranted, and updating of the *Action Plan* in five years.

Objective

2. Facilitate stakeholder and public involvement in development of the Susquehanna-Chemung Action Plan.

Task Summary & Project Outcomes

Project oversight was provided by an Advisory Committee. This is an ad hoc group of representatives from various organizations and others who expressed interest in the project. Committee members received periodic email communication about the project. Guidance and recommendations from Advisory Committee members and other key stakeholders was solicited through participation in meetings, email exchanges, and the project website. Two initial meetings (Upper Susquehanna Coalition meeting on 1/29/2010 and Advisory Committee meeting on 4/6/2010) helped to establish the scope of the plan, identify key issues to be addressed, develop draft goals, begin to identify existing information, and develop preliminary recommendations. A website was developed to provide access to project information and support the watershed planning project (www.susquehanna-chemung.org). State-of-the watershed information, data, and existing plans were assembled on the website for each of the key issues addressed by the *Action Plan*. Links to useful resources were also assembled for each issue, including high quality educational information, relevant programs, and success stories. The website also provides information about ecosystem-based management. Participation and recommendations from key stakeholders was solicited throughout plan development process through email correspondence, newsletter articles, a Land Use Survey of planners, and meetings. Project reports were made at numerous meetings of existing groups. More extensive input on draft sections of the *Action Plan* was solicited at "focus group" meetings, including: Flood Hazards at a special meeting (10/4/2010), Land Use at a Southern Tier East Regional Planners' Roundtable (3/14/2011), Outdoor Recreation with boaters participating in the Susquehanna Sojourn (6/17/2011), Education & Research with educators attending the Chesapeake Bay Academy (7/15/2011), Runoff at a Rural Stormwater Coalition meeting (8/3/2011), and Water Quality & Quantity at a Chemung County Water Quality Strategy Committee

meeting (11/16/2011). Economic development committees were engaged to inform the *Action Plan* and also to improve integration of the natural resource issues addressed by the *Action Plan* into the *Comprehensive Economic Development Strategies* (CEDS) developed for the Southern Tier Central and Southern Tier East regions. Additional feedback on each section of the plan was solicited through targeted emails of draft sections, including distribution of the Plants & Wildlife section to Upper Susquehanna Conservation Alliance distribution list and the Streams & Rivers section to the Stream Committee of the Upper Susquehanna Coalition. The draft plan was presented at two public meetings on 2/6/2012 and 2/9/2012. Feedback and suggestions from all of these stakeholder contacts, combined with review of existing plans and documents, contributed to development of the final *Susquehanna-Chemung Action Plan*.

Objective

3. Provide local, science-based information and recommendations to support the Susquehanna-Chemung Action Plan.

Task Summary & Project Outcomes Data analysis activities to support development of the *Action Plan* focused on digital map information. A data viewer was custom-built to provide public access to this information (<http://stcgis.org/SCAtlas/>). This Susquehanna-Chemung Data Atlas is accessible from each page of the *Action Plan* website and provides online access to existing and new watershed data. An "identify tool" gives information about features and hyperlinks to relevant websites for additional information. Slope analysis was conducted for the entire watershed to show areas with slopes of 0-10%, 10.1-15%, and greater than 15%. In order to facilitate use of this slope information, a steep slope guide was developed for planning boards, entitled "Steep Slopes and Land Use Decisions." This includes information about the potential consequences of developing steep slopes, tools/strategies for protecting steep slopes, and instructions for accessing slope information online through the Susquehanna-Chemung Data Atlas. Soil attributes from the SSURGO database were used to map characteristics that are relevant to the *Action Plan*. Impervious surfaces and other land cover information were extracted from image files for 11 urban areas (Bath, Binghamton, Corning, Cortland, Elmira, Hornell, Norwich, Oneonta, Owego, Waverly, Vestal). This analysis distinguishes between roofs, vegetation, asphalt, and water. The data were manipulated to enable calculations based on the land cover information. Reports entitled "Flood Attenuation Opportunities" were developed for some of these urban areas. These reports (targeted for local government personnel) provide maps and information about the site characteristics that are needed for different types of projects.

Objective

4. Complete reporting as required.

Task Summary & Project Outcomes All progress and financial reports were submitted on time.

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.

Implementation of some tasks was delayed due to staff availability. Revised personnel allocations enabled successful completion of the project within the designated time frame.

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.

The initial task to conduct watershed modeling to identify cost-effective stormwater retrofit or green infrastructure projects was revised in response to severe flooding in September 2011. "Flood Attenuation Opportunities" reports were instead prepared as a means to support green infrastructure and stormwater projects for flood attenuation benefits. Permission was also received from DEC to transfer costs among expenditure categories (Contractual Services to Personal Services) in order to accommodate re-allocation of responsibilities for several tasks.