

Implementation Strategy

The Susquehanna-Chemung Action Plan presents a vision, eleven goals, and numerous recommendations for improving the quality of life and economic wellbeing in the watershed. The next step is, of course, to implement it. This Action Plan is not a work plan for any single organization. Rather, it is watershed-wide plan that encompasses the missions and programs of numerous partners. Many of the recommendations are ongoing activities of partner organizations, which are included to emphasize the need for ongoing funding or the potential for replication in other parts of the watershed. Other recommendations will require new or additional funding for new initiatives or expansion of existing programs. A recurring theme is the sharing of information and successes to facilitate watershed-wide achievements. The anticipated contributions of key partners (though certainly not all partners) are summarized below. Also presented is a strategy for coordination, tracking of progress, and periodically updating the Action Plan.



Confluence Park, Binghamton (photo courtesy of Broome County SWCD).

“Strategy without action is a daydream; action without strategy is a nightmare.”

- old Japanese proverb

WHO WILL IMPLEMENT?

This Action Plan will be implemented by existing organizations. It was developed by Southern Tier Central Regional Planning and Development Board (STC), with input and assistance from Southern Tier East Regional Planning Development Board (STERPDB), ad hoc Advisory Committee members, and other key stakeholders. These partners will continue to be the key players in implementing the Action Plan. Much of the on-the-ground work will continue to be accomplished by local and county organizations. Regional organizations and the NYS Department of Environmental Conservation are best situated to provide regional coordination and watershed-wide information sharing. Successful implementation of many Action Plan recommendations will require increased funding and/or additional staff.

ACTION PLAN COLLABORATORS

The following organizations have regional programs that encompass multiple Action Plan Goals and will thus be key partners for program coordination as well as implementation.

Southern Tier Central Regional Planning and Development Board (STC)

Southern Tier Central Regional Planning and Development Board is the primary author of this Action Plan and will continue to provide leadership and coordination for plan implementation. The STC region encompasses Chemung, Schuyler, and Steuben Counties in the western part of the watershed (mostly the Chemung Watershed). STC has worked with these counties for forty years on economic development, water resources, hazard mitigation, and other issues. This assistance includes grantwriting, education, training, data management (including GIS mapping), and regional coordination for numerous programs. Strong water resource and flood assistance programs have enabled STC to build partnerships beyond the region, with other counties in the Susquehanna-Chemung Watershed and statewide. STC programs that will contribute to implementation of this Action Plan include:

- **Water Resources:** STC participates in and actively assists the three county Water Quality Coordinating Committees, the Chemung County Stormwater Coalition, the three-county Rural Stormwater Coalition, and the Upper Susquehanna Coalition. This assistance includes developing county Water Quality Strategies and assistance with addressing various water resource issues. STC also aids the NYS Department of Environmental Conservation with the local delivery of state water programs and NYS initiatives related to Chesapeake Bay issues. STC provided leadership for the Chemung Basin River Trail Partnership and works with the recently-formed Friends of the Chemung River Watershed. STC also has strong working relationships with the Susquehanna River Basin Commission and has assisted them with documentation of New York water resource activities for many years.
- **Flood Assistance:** The STC Flood Assistance Program (administered by a Certified Floodplain Manager) provides technical assistance for floodplain management, flood mitigation, flood warning, stormwater management, stream management, and other topics. STC staff has facilitated development of flood mitigation plans, multi-hazard mitigation plans, and numerous educational documents. STC serves on the Board of Directors for Environmental Emergency Services (a three-county non-profit organization that supports emergency response through a Flood Warning Service, Chemical Hazard Information Team, and public education efforts) and is an active member and committee chair for the NYS Floodplain and Stormwater Managers Association. STC will co-chair the recently-formed Flood Working Group of the Upper Susquehanna Conservation Alliance.
- **Economic Development:** STC is the local administrator of the Appalachian Regional Commission (ARC) and Economic Development Administration (EDA) programs. In this capacity, the agency is active in developing economic development strategies for the region and working with local, state, and federal funding sources to support economic development projects. STC is also facilitating a Brownfield Opportunity Area project. The annual “Comprehensive Economic Development Strategy” (CEDS) for the region encompasses a broad range of economic opportunities, including agriculture, forestry, tourism, manufacturing, commercial development, and resource extraction activities. Significant progress has been made to increase the integration of water resource issues, flood hazards, and Susquehanna-Chemung Action Plan goals into the recent CEDS’.
- **Energy:** In anticipation of New York State approval of high volume hydraulic fracturing techniques for Marcellus Shale gas drilling, STC employs a planner who concentrates on issues related to natural gas extraction. STC attends the meetings of and coordinates activities between the three counties and their energy task forces. Further, STC contracted for a Marcellus Tourism Study and coordinated development of an Energy Planning Guide for Energy Impacted Communities.
- **Planning:** STC provides municipal planning assistance to local governments, including development of comprehensive plans and municipal land use regulations. Environmental planning efforts have included waterfront revitalization plans and watershed management plans.
- **Transportation:** STC is active in transportation planning efforts, supports various committees, and assists highway departments with drainage system mapping and water quality issues.
- **Training:** Lastly, STC has a long history of providing training to municipal governments. STC hosts a regional leadership conference yearly that attracts over 500 municipal officials. Municipal officials receive a day of training and information sharing on a wide range of topics such as planning, zoning, environmental issues, municipal bonding, grantwriting, and code enforcement. STC will continue and grow their training programs to ensure the training needs of the region are being met. STC will also continue to produce training resources, recommendations, and outreach materials to help educate the watershed communities.

Southern Tier East Regional Planning Development Board (STERPDB)

Southern Tier East Regional Planning Development Board provides assistance on a regional basis to eight counties within the watershed: Broome, Chenango, Cortland, Delaware, Otsego, Schoharie, Tompkins, and Tioga Counties. STERPDB works with their counties on regional issues by providing technical assistance for planning and economic development and seeking funding for county projects with regional impacts. STERPDB serves as the delivery mechanism for the ARC and EDA programs. As the Local Development District for EDA, STERPDB is responsible for a Comprehensive Economic Development Strategy (CEDS), which identifies projects and activities for which EDA funding will be sought. Projects funded by EDA include infrastructure supporting local industry, as well as business planning and workforce development.

STERPDB will assist with implementing recommendations of this plan through current and future programming, for instance:

- **Economic Development:** STERPDB's Regional Engagement of Communities will involve identification of underutilized lands, areas of disinvestment, and/or blight in order to work with communities to develop strategies for addressing the causes. Further, STERPDB facilitates cooperative efforts to update municipal officials, developers, and Industrial Development Agencies about the monetary benefits of protecting and enhancing the natural environment.
- **Planning:** STERPDB organizes quarterly Planners Roundtable discussions at which county planners share ideas, thoughts, concerns, and positive and negative feedback about specific planning issues and programs. STERPDB also administers a circuit rider program that provides planning assistance and training throughout its region.
- **Water Resources:** STERPDB has recently initiated a water quality management planning program, providing assistance and support to County Water Quality Coordinating Committees and their subcommittees. STERPDB is also assembling existing water quality data for its region to identify possible gaps, potential projects, and successful activities. The agency plans to increase their involvement in water quality issues in future years.
- **Agriculture:** STERPDB is working to create partnerships (with agricultural nonprofits and the Center for Agricultural Development and Entrepreneurship) to develop a revolving loan fund that will provide microloans and funding to assist with agricultural production and processing. Due to recent flooding, STERPDB is also looking at working with agriculture professionals to establish educational programs to diversify the placement of crops to lessen the financial impacts and catastrophic losses in the case of floods or natural disasters.
- **Roads:** STERPDB is working with municipalities to analyze infrastructure capacity and deal with traffic-related development, and the public's perception of traffic appropriateness particularly in light of Marcellus Shale development.

NYS Department of Environmental Conservation (NYS DEC)

The NYS Department of Environmental Conservation supports the development of this and other ecosystem-based watershed management plans throughout the state. The Susquehanna-Chemung Action Plan updates and builds on the Watershed Protection and Restoration Action Strategy (WRAPS) previously developed by NYS DEC for this watershed. NYS DEC is a fundamental partner in the quest for funding to implement recommendations of this plan, as well as an active participant in many of the recommended actions. The agency is involved in regulatory enforcement, grant administration, program implementation, and public education related to most of the issues addressed in this Action Plan. Relevant programs and plans include:

NYS DEC Mission: *To conserve, improve and protect New York's natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being.*

- **Chesapeake Bay Watershed Program** and Watershed Implementation Plan
- **Water quality monitoring and assessment programs:** including Routine Statewide Monitoring, Waterbody Inventory/Priority Waterbodies List, Section 303d List of Impaired Waters, and Total Maximum Daily Loads (TMDLs)
- **Chemical and pollution control programs**
- **Water supply and conservation programs**
- **Open space:** 2009 NYS Open Space Conservation Plan
- **State Environmental Quality Review (SEQR):** NYS DEC issues regulations regarding the SEQR process
- **NYS Smart Growth Cabinet:** DEC is an active participant
- **Protection of Waters Regulatory Program:** stream disturbance and wetland permits
- **Floodplain management program:** NYS DEC provides technical assistance to communities and coordination for flood hazard mapping

- Flood control projects: NYS DEC conducts and oversees operation and maintenance of levees and other structural flood control projects
- Dam safety program: NYS DEC conducts safety inspection of dams and issues permits for dam construction and modification
- Stormwater permit programs: including Green Infrastructure requirements
- Permits for Concentrated Animal Feeding Operations (CAFOs)
- Forestry programs: including Forest Landowner Assistance and stewardship of state forest lands
- Species conservation programs: including *Comprehensive Wildlife Conservation Strategy*, NY Natural Heritage Program, and State Wildlife Grant Program
- Fisheries, habitat, and wildlife programs
- Maintenance of recreational amenities: including boat launch sites and fishing access easements
- Environmental education programs

The Upper Susquehanna Coalition (USC)

The Upper Susquehanna Coalition consists of 19 Soil and Water Conservation Districts (SWCDs) in the Upper Susquehanna and Chemung Watersheds in New York and Pennsylvania. The New York counties that participate are: Allegany, Broome, Chemung, Chenango, Cortland, Delaware, Herkimer, Livingston, Madison, Oneida, Onondaga, Otsego, Schuyler, Steuben, Tioga, and Tompkins. The USC is a regional group with experience in taking a regional approach, advocating for better policies, and getting work done. The main program areas are:

USC Mission: *To protect and improve water quality and natural resources in the Upper Susquehanna River Basin with the involvement of citizens and agencies through planning, education, coordination, funding, project implementation and advocating for our water resources.*

- Stream corridor rehabilitation: USC Stream Team utilizes a rigorous technical approach to assess and rehabilitate streams.
- Wetland restoration: USC projects include wetland and buffer restoration, wetland construction, vernal pool evaluation and education, and watershed analyses to target high quality wetland restoration sites.
- Environmentally and economically sustainable agriculture: USC Grazing Initiative promotes prescribed grazing techniques and exclusion of livestock from streams and riparian buffers.

The member Districts are also active in county Water Quality Coordinating Committees and engage in numerous water resource activities.

Cornell Cooperative Extension (CCE)

An overarching theme that has emerged from this plan's recommendations is education. Cornell Cooperative Extension has an office in every county, with the resources and the expertise to educate communities on a variety of topics. Topics on which Extension educators share expertise include:

CCE Mission: *The Cornell Cooperative Extension educational system enables people to improve their lives and communities through partnerships that put experience and research-based knowledge to work.*

- Environment and Natural Resources: including environmental land use, invasive species, water quality, wildlife management, and forestry
- Community and Economic Vitality: including Community and Regional Development Institute
- Agriculture: including environmental management, production agriculture, and sustainable agriculture
- Gardening: including Master Gardener Volunteer Program and community gardening
- Energy: including a Natural Gas Resource Center

Susquehanna River Basin Commission (SRBC)

The Susquehanna River Basin Commission coordinates water resources efforts of three states and the federal government in the Susquehanna River Basin. To accomplish their mission, the SRBC works to: reduce damages caused by floods;

SRBC Mission: *To enhance public welfare through comprehensive planning, water supply allocation, and management of the water resources of the Susquehanna River Basin.*

provide for the reasonable and sustained development and use of surface and ground water for municipal, agricultural, recreational, commercial and industrial purposes; protect and restore fisheries, wetlands and aquatic habitat; protect water quality and in-stream uses; and ensure future availability of flows to the Chesapeake Bay. The priority management areas identified in SRBC's comprehensive plan are:

- Water supply: including regulation of water use and consumptive use
- Water quality: including water quality monitoring
- Flooding: including coordination of the Susquehanna Flood Forecast and Warning System and preparation of inundation maps
- Ecosystems: including monitoring and assessment of in-stream ecosystems
- Chesapeake Bay
- Coordination, cooperation, and public information

PARTNERS FOR WATERSHED ISSUES

Many additional partners will be instrumental in implementing programs related to each issue addressed by the Action Plan. This participation is contingent on the availability of funding and staff resources.

Water Quality and Quantity

County Water Quality Coordinating Committees (WQCCs) and member organizations are the key local partners for addressing water quality and quantity issues in each county. These committees concentrate on protecting and improving water quality within the county. They monitor current water resource issues and serve as the local water quality experts. The WQCCs can use this plan to guide their local efforts to:

- engage and educate the public,
- seek funding for priority projects,
- implement local projects, and
- lobby for improved policies.

These county efforts complement the monitoring, regulatory, planning, and funding activities of regional, watershed, and state organizations (summarized above). In addition, the NYS Department of Health drinking water protection activities include programs that prevent contamination, protect water supplies, and educate the public.

Economic Development

Integration of water resource concerns and economic development require ongoing efforts to strengthen communication, coordination, and partnerships both within the economic development community and with other public and private sector entities. There are numerous economic development partners that work within the Susquehanna-Chemung Watershed. While watershed management is not their primary mission, many of the recommendations of the Susquehanna-Chemung Action plan also support the region's economic development objectives. With STC and STERPDB providing regional strategic planning and coordination, the following organizations will also be key partners to implement the economic development recommendations of the Susquehanna-Chemung Action Plan:

- Empire State Development
- Chambers of Commerce
- County and Local Planning and Economic Development Offices
- County and Local Industrial Development Agencies (IDAs)
- Workforce Investment Boards
- Business Associations
- Labor Organizations
- Educational Institutions
- Center for Agricultural Development and Entrepreneurship (CADE)
- Pipeline 4 Progress Network
- Southern Tier Economic Growth (STEG)

Land Use

In New York, municipal boards and planning boards bear the primary responsibility for land use decisions. However, most municipalities do not have professional planners and thus need both training and technical assistance to facilitate improved land use planning and local regulations. Agencies can also assist with land use regulations by developing and distributing sample regulations or ordinances. This training and assistance will be provided by the following key partners:

- County Planning Departments provide planning assistance and training to municipal boards and will attempt to secure funding to implement appropriate land use recommendations. County planning departments will make training materials, information, sample language, and other resources available to municipal planning boards. They will also collaborate with regional planning boards and other planning agencies to develop circuit rider programs.
- NYS Department of State participates in the state Smart Growth Cabinet, conducts municipal training on land use and other topics, and provides other assistance to municipal governments.
- STC and STERPDB also provide training and planning assistance and will facilitate sharing of resources and information among watershed counties.

Streams and Rivers

The Upper Susquehanna Coalition (USC) has developed a trained Stream Team that provides watershed-wide leadership and coordination for stream and river management issues. This group provides training, technical support, and funding for stream assessment and rehabilitation projects. The USC Stream Committee is seeking additional funding to expand this program and support additional recommendations in the Streams and Rivers Section of this Action Plan. County Soil and Water Conservation Districts (with support from the USC Stream Team as needed) provide local leadership for stream management issues in each county and technical support for municipal and county Highway Departments. The NYS Department of Transportation is also active on stream issues associated with highway and bridge projects. In addition to on-the-ground projects, these groups will work with multiple partners to facilitate the “cultural” changes needed to improve local management of stream corridors. This will require education of landowners and community leaders about natural stream functions and stream stewardship.

Flood Hazards

Implementation of Action Plan recommendations for reducing flood risks requires ongoing efforts to strengthen inter-jurisdiction and inter-agency communication, coordination, and partnerships. The recently-formed Flood Working Group of the Upper Susquehanna Conservation Alliance (USCA) will provide a forum for watershed-wide coordination. Key partners for implementation of Action Plan recommendations include:

- STC will seek funding to continue and expand its Flood Assistance Program and provide leadership for the USCA Flood Working Group.
- SRBC coordinates the Susquehanna Flood Forecast and Warning System (SFFWS), conducts public education about flood safety, develops inundation mapping, and supports other efforts to reduce flood losses.
- NOAA National Weather Service conducts public education through presentations and brochures, trains volunteer weather observers through SKYWARN and other programs, conducts ice monitoring training, participates in the SFFWS, and provides support for flood safety activities.
- NYS DEC is involved with reducing flood losses and preserving beneficial floodplain functions through floodplain management, flood control, dam safety, and other programs.
- NYS Office of Emergency Management maintains the state Hazard Mitigation Plan, supports emergency response activities, conducts public education, and administers FEMA’s mitigation grant programs.
- Environmental Emergency Services provides flood warning support and conducts public education for Chemung, Schuyler, and Steuben Counties.
- Counties actively manage flood risks through the efforts of Hazard Mitigation Coordinators, Emergency Management Offices, Planning Departments, Highway Departments, and SWCDs. Hazard mitigation

plans have been developed by each county in the watershed. In addition, several counties have formed flood task forces that engage in training, education, advocating for better policies, assistance with procuring funding, and other efforts.

- Municipalities have authority for local emergency situations, managing floodplain development, land use controls, and managing local roads. Thirteen watershed municipalities undertake additional flood hazard reduction efforts to participate in the Community Rating System of the National Flood Insurance Program (to enable reduced flood insurance costs).
- Other local organizations may be active in flood response, education, and mitigation, particularly following flood events.

Runoff

Stormwater management activities in New York are driven by the NYS DEC stormwater permits for construction, Municipal Separate Storm Sewer Systems (MS4s), and industrial activities. Design standards have been developed by NYS DEC to support these permit programs (“New York Standards and Specifications for Erosion and Sediment Controls” and “New York State Stormwater Management Design Manual,” which was revised in 2010 to incorporate stormwater planning and green infrastructure requirements). NYS DEC provides STC and STERPDB with funding to assist with local delivery of the stormwater management and green infrastructure programs (through CWA 604(b) grants for regional water quality management planning programs). This enables the regional boards to provide training, technical assistance, and coordination to support Action Plan recommendations. Four stormwater coalitions have been formed to support, coordinate, and facilitate stormwater management efforts:

- Chemung County Stormwater Coalition encompasses the entire county, providing staff support for both MS4 programs and rural stormwater management efforts.
- Broome-Tioga Stormwater Coalition enables coordination of MS4 programs for the regulated municipalities in the Binghamton urban area.
- Tompkins County Stormwater Coalition enables coordination of MS4 programs for the regulated municipalities in the Ithaca urban area.
- Rural Stormwater Coalition was formed to promote improved stormwater management practices in rural (non-MS4) areas of Schuyler, Steuben, and Chemung Counties.

Municipalities play an important role in facilitating local implementation of improved runoff practices. County SWCDs, planning departments, and highway departments support and supplement municipal programs, providing training, design assistance, planning assistance, and other support. The NYS Department of State (DOS) also provides training and technical assistance to municipalities through their division of local government services. The NYS Department of Transportation is active in managing runoff associated with the state road system and implementing a MS4 program. Private developers, contractors, and industries also have a significant part to play in managing runoff, since they are the ones that obtain stormwater permit coverage for construction and industrial activities.

Roads

Public road systems are the responsibility of state, county, and local highway departments. Training and technical assistance are provided by the Cornell Local Roads Program, SWCDs, and county highway departments. Technical resources are developed by Cornell Local Roads program and distributed with assistance from county and regional organizations. Some regional coordination will also be achieved through STC and STERPDB involvement in transportation planning and roadway drainage issues.

Agriculture and Forestry

County Soil and Water Conservation Districts (SWCD) implement the Agricultural Environmental Management (AEM) program at the local level and are actively involved in the agriculture and forestry issues addressed in this Action Plan. Watershed-wide coordination is provided through the USC Agriculture program. Additional partners for implementing Action Plan recommendations include:

- County Agriculture and Farmland Protection Boards facilitate implementation of recommendations in Agriculture and Farmland Protection Plans.
- USDA Natural Resources Conservation Service provides technical and financial assistance through Farm Bill programs.
- New York State Farm Bureau promotes agriculture, supports farmers, and advocates for improved policies.
- NYS Department of Agriculture and Markets has numerous agricultural programs, including Agricultural Districts, AEM, and funding opportunities.
- County Planning Departments update Agricultural Districts and assist municipalities with district requirements.
- Cornell Cooperative Extension conducts research, provides technical assistance, and implements educational programs.
- County Foresters provide forest management training and assistance.
- NYS DEC implements the Confined Animal Feeding Operation permit program, manages state forest lands, and provides forestry assistance to landowners.

Plants and Wildlife

The Upper Susquehanna Conservation Alliance (USCA) was formed to coordinate conservation efforts in the Susquehanna and Chemung Watersheds in New York. This alliance and its working groups will enable coordinated implementation of Action Plan recommendations by member organizations. The Natural Resources Working Group has three subgroups: the Brook Trout, Hellbender, and Eel/Shad Working Groups. Some of the principle partners in implementing the Plants and Wildlife recommendations of this Action Plan include:

- US Fish and Wildlife Service
- NYS DEC
- Land conservancies and other non-profit conservation groups (Finger Lakes Land Trust, Otsego Land Trust, Central NY Land Trust, the Nature Conservancy, Trout Unlimited)
- NYS Department of Transportation
- USC
- University researchers

Outdoor Recreation

Encouraging increased enjoyment of the watershed's recreational treasures requires ongoing efforts to maintain parks, trails, and access sites. Although many public facilities are owned and operated by NY State and municipalities, others are managed by non-profit groups and rely on volunteers for funding and labor. The following organizations are key partners in promoting water-based recreation and maintaining recreational facilities:

- NYS Office of Parks, Recreation, and Historic Preservation manages and promotes state parks and historic sites.
- Municipal and County Planning and Parks Departments operate and maintain numerous local parks and other open space. The planning and parks departments also plan future recreation facilities.
- Volunteer organizations, including recreation groups, river trail partnerships, trail conferences, nature centers, and land trusts, have taken on the burden of maintaining trails and providing volunteers to build and maintain facilities. These groups also lobby the government for funding for outdoor recreation amenities and education. Some obtain grant funding to assist with the acquisition, construction, and maintenance of parks, trails, boat launches and many other types of recreation facilities.



Boaters Landing boat launch, Chemung County (by Janet Thigpen).

Education and Research

Cultivation of an environmental ethic is a long-term effort that requires the collaboration of teachers, non-formal educators, parents, researchers, and the community at large. Key partners in implementing the education and research recommendations of this Action Plan are:

- Nature and environmental education centers: Finch Hollow Nature Center, Hoxie Gorge Nature Preserve, Nature Preserve of Binghamton University, Rogers Environmental Education Center, Spencer Crest Nature Center, Tanglewood Nature Center, and Waterman Conservation Education Center.
- Public schools
- NYS DEC
- NYS Department of Education
- Colleges, universities and research centers
- Soil and Water Conservation Districts
- Regional, county, and municipal planning boards and departments

Every section of the Susquehanna-Chemung Action Plan includes recommendations for additional training and public education. There is also a need for ongoing research on each issue to support implementation of science-based programs. This means that education, training, and research will be integral parts of many of the programs and projects that contribute to implementation of various parts of this Action Plan. It also means that all implementation partners will be involved in conducting and/or promoting education and research efforts.

HOW TO IMPLEMENT

The Susquehanna-Chemung Watershed has the necessary groups, partnerships, and knowledge to fully accomplish the recommendations of the Susquehanna-Chemung Action Plan. However, successful implementation will require additional funding. This is clearly reflected in the wording of many recommendations (“seek funding to...”), but applies to other items as well. Additional buy-in from business owners, residents, political leaders, county agencies, and organizations is also needed to support implementation. The plan partners and collaborators will need to disseminate science-based information and engage the public in meaningful dialog to facilitate this buy-in. County level officials and politicians will be important partners in facilitating this dialog, as well as advocating for better policy at the state level and nationally.

Watershed-wide coordination will be provided by the regional, watershed, and state organizations indicated above. STC has included promotion and maintenance of the Action Plan in the work plan for the STC Water Quality Management Planning Program (Clean Water Act, Section 604(b) project). This work will include corresponding with the ad hoc Advisory Committee, maintaining the Action Plan website (www.susquehanna-chemung.org), maintaining the online Susquehanna-Chemung Data Atlas (www.stcgis.org/SCAtlas), and preparing progress reports on plan implementation (annually if possible). However, limited program funding and other program priorities may limit the amount of implementation detail that can be assembled for progress reports and/or the frequency of these assessments. STC will explore options for supplemental funding and/or increased participation of other partners in documenting accomplishments and other maintenance activities.

ADAPTIVE MANAGEMENT STRATEGY

“Adaptive management” is the process of evaluating progress, testing alternate management approaches, and readjusting the management strategy as new information becomes available. STC proposes to track progress on implementing the Susquehanna-Chemung Action Plan through an annual assessment process (if resources permit). Each year, project partners will be contacted (through surveys and/or interviews) about implementation activities and the success or failure of those actions. Criteria for measuring progress are indicated in the Action Plan as “measures” for each recommendation. The accomplishments will be compared with the target implementation timeframes presented in the Plan. Action Plan recommendations and implementation targets will be re-evaluated in light of these accomplishments, the successes, and the failures. For those recommendations that are unaddressed, the reasons will be evaluated (insufficient resources, low

priority, etc.) to assess whether the recommendation should be removed or revised. An Action Plan Progress Report will be prepared to document implementation activities and the lessons learned. This report will also propose revisions to Action Plan recommendations, implementation timeframes, or measures, if warranted.

Information learned through the assessment of Action Plan progress and other program activities will be used to update the resources and data on the Susquehanna-Chemung Action Plan website and in the Susquehanna-Chemung Data Atlas.

It is anticipated that the Susquehanna-Chemung Action Plan will be updated in approximately 5 years. The Progress Reports, updated website, and updated Data Atlas will inform the process of reviewing and revising the Action Plan. However, additional stakeholder outreach and involvement will be required to facilitate an in-depth review of the plan, exploration of alternative strategies, and development of an updated document. Additional funding will be required to achieve this.