

7.0 INSTITUTIONAL ASSESSMENT

7.1 Introduction

Interested stakeholders, including organizations and government entities, are important resources throughout the Schuylkill River watershed. The water quality and open space recommendations suggested in the prior chapters cannot be carried out without the concerted, affirmative action of the watershed's organizations and government entities. Therefore, the Schuylkill Watershed Conservation Plan would not be complete without an assessment of the watershed's organizations and government entities. The institutional assessment was conducted to determine how to maximize individual conservation activities and strengthen the institutional framework in the watershed. Specifically, the goals of this assessment were:

- to identify major conservation activities;
- to assess opportunities for watershed-wide coordination;
- to make recommendations for strengthening existing organizations; and
- to outline a framework for watershed leadership that will facilitate planning and implementation of projects for sustainable watershed management.

The institutional assessment addressed several key issues that were raised through the public outreach process, including: the need to improve coordination between and among nonprofit groups and government entities at all levels (local, municipal, state and federal); the need to build capacity of local government and nonprofit groups; and, the need to increase public awareness of watershed issues. Other key concerns raised by the watershed public were the need for coordination in water quality monitoring, and the need for a centralized clearinghouse of watershed data and information.

The institutional assessment was conducted through a survey of nonprofit organizations and a second survey of public agencies. The primary purpose of the Nonprofit Survey was to identify geographic regions in the watershed that are potentially under-served by nonprofit activity, or that may require coordination of nonprofit services to strengthen effectiveness. With that goal in mind, a sample of watershed nonprofits was selected, and these nonprofits were interviewed to determine each organization's geographic service area boundaries, mission and activities. The primary purpose of the Public Agency Survey was to determine activities, needs and resources available from various entities, to compile agency profiles and list of completed/ongoing projects, and to identify opportunities for inter-agency and inter-institutional cooperation. Again, the ultimate goal of this institutional assessment was to develop recommendations for more effective watershed management.

7.2 Summary Recommendations

Recommendations for improving the institutional framework of the Schuylkill River watershed are summarized in the table below. Each recommendation is assigned a unique code number (e.g., **R7.1**) and name, and is cross-referenced to the key institutional or watershed management issue(s) it addresses. These recommendations are described in more detail in **Section 7.5 Detailed Recommendations from the Institutional Assessment**, and the page number where the detailed description of each recommendation can be found is listed in the *Page* column of this table.

<i>Code</i>	<i>Recommendation</i>	<i>Summary Description</i>	<i>Issues Addressed</i>	<i>Page</i>
R7.1	Develop Quantitative Indicators/ Measures of Success	An effort should be made to develop model watershed-wide indicators that can be used by all organizations. Public agencies and nonprofits should develop and use indicators for each project to determine success in order to invest resources wisely and measure progress towards goals.	Improve coordination Plan implementation Resource management Strategic conservation	7-53
R7.2	Watershed Network	A watershed network of public, private and nonprofit stakeholders should provide leadership on a watershed-wide basis, and help to coordinate partner activities on a local basis in order to maximize the effect of individual nonprofits' conservation activities.	Improve coordination Build capacity Public awareness Plan implementation Strategic conservation	7-54
R7.3	Foundation Network	Foundations should form a network to coordinate funding for watershed activities to meet needs, maximize existing resources, and encourage coordination of conservation activities among organizations.	Improve coordination Build capacity Plan implementation Strategic conservation	7-62
R7.4	Institutionalize Professional Training	Both nonprofits and agencies should attend ongoing professional training programs to optimize staff resources.	Build capacity	7-63
R7.5	Explore Nonprofit – Public Agency Partnerships	Public agencies and nonprofits should explore partnerships with one another to fill gaps in service, coordinate activities, maximize available resources and optimize staffing.	Improve coordination Build capacity	7-64
R7.6	Promote Public Awareness of Watershed Issues	Public outreach, citizen monitoring and other volunteer opportunities, education on watershed location, and watershed boundary signs could help promote public awareness and a “sense of place.”	Public awareness	7-64
R7.7	Filling Geographic Gaps and Coordinating Service among Nonprofits	Nonprofits should coordinate to expand their geographic reach, or facilitate the formation of new watershed groups or cooperative partnerships to cover areas of the watershed that may be under-served. Nonprofits operating within the same regions should coordinate activities to leverage resources and maximize environmental benefits. Topical watershed meetings could be convened around specific activities to improve communication and cooperation.	Improve coordination	7-65
R7.8	Political verses Natural Geographic Service Area Coverage	Nonprofit groups and public agencies should consider adjusting their service area to represent natural (i.e., subwatershed) boundaries instead of political boundaries. Where possible, entities, such as local governments, that are constricted to political boundaries should coordinate with others within subwatershed boundaries.	Improve coordination	7-66
R7.9	Comprehensive Nonprofit Survey	A comprehensive survey of all nonprofits and volunteer groups in the watershed should be conducted to further determine geographic areas and groups to be coordinated.	Improve coordination	7-67

<i>Code</i>	<i>Recommendation</i>	<i>Summary Description</i>	<i>Issues Addressed</i>	<i>Page</i>
R7.10	Updated Watershed Directory	Develop an up-to-date, comprehensive directory of watershed groups and government entities with names, contact information, mission statements, resources and services offered, and geographic service areas to link citizens, nonprofits and public agencies to one another.	Improve coordination Build capacity Public awareness Data clearinghouse	7-67
R7.11	Watershed Clearinghouse	An online Schuylkill River watershed clearinghouse should be developed to link and provide resources to nonprofits, local governments, agencies, and citizens in the watershed. The site should include planning documents, the watershed directory, links to partners, GIS data access, funding resources, etc.	Improve coordination Build capacity Public awareness Data clearinghouse	7-68
R7.12	Watershed Service Center	A watershed service center with links to technical and organizational expertise should be established to help nonprofits and local governments with their organizational needs.	Build capacity Data clearinghouse	7-70
R7.13	Diversify Fundraising	Nonprofits should diversify their funding sources to support long-term organizational growth.	Build capacity	7-70
R7.14	Grant Guidelines that Support Partnerships	State agencies and private foundations should use criteria in grant guidelines to encourage proposals that establish working relationships and partnerships among watershed groups, in order to improve coordination and reduce redundancy.	Improve coordination Build capacity	7-71
R7.15	Streamlined Grant Application Process	Where practicable, state agencies and private foundations should coordinate grant programs, in order to improve nonprofit access to funding resources, increase the diversity of proposed projects, and maximize the resources and benefits of grant programs.	Improve coordination Build capacity	7-71
R7.16	Use Innovative Land Protection Mechanisms	Use innovative land conservation and funding tools, such as conservation easements, bond initiatives and purchase of development rights, to maximize options for conservation and/or acquisition.	Plan implementation Resource management Strategic conservation	7-71
R7.17	Re-poll Watershed Community	Re-poll the watershed population at intervals to survey watershed awareness and progress in education and outreach goals.	Public awareness	7-72
R7.18	Coordinate Planning Efforts	All planning efforts should be coordinated to ensure consistency among recommendations at all levels of government and nonprofit activity, and to ensure efficient use of funding, not duplication of efforts.	Improve coordination Plan implementation Strategic conservation	7-72

<i>Code</i>	<i>Recommendation</i>	<i>Summary Description</i>	<i>Issues Addressed</i>	<i>Page</i>
R7.19	Fund an Outreach and Adoption Phase to Ensure Plan Implementation	To ensure implementation of this Plan, an outreach phase needs to be funded to educate interested stakeholders about the plan, how to interpret and use the data and how to incorporate the data into local ordinances, etc. Outreach activities should target local governments, county planning commissions and nonprofit organizations in the watershed.	Resource management Strategic conservation Plan implementation	7-72
R7.20	Hold Annual or Bi-annual Watershed Summit	An annual or bi-annual watershed summit of stakeholders to facilitate networking, discussion of major activities, demonstration projects and plan implementation will improve cohesiveness of groups and coordination of conservation activities.	Improve coordination Public awareness Plan implementation	7-73
R7.21	Schuylkill River Watershed Conservation Coordinator	A Schuylkill River Watershed Conservation Coordinator should be funded through one of the local nonprofits or state agencies to work with nonprofits and government entities to implement this Plan.	Improve coordination Public awareness Plan implementation	7-73

7.3 Nonprofit Organization Survey

7.3.1 Background and Procedure

Understanding that nonprofit organizations serve as the vital link between citizen and government action, and implement important watershed projects, key organizations in the Schuylkill River watershed were surveyed. The purpose of the survey was to conduct a preliminary nonprofit “gap analysis” —i.e., to identify specific geographic areas within the watershed that may be under-served by nonprofit programs and areas where nonprofit programs need coordination due to the coexistence of several groups

The three main criteria for selecting the nonprofits surveyed included groups that had a variety of missions, were geographically diverse throughout the watershed, and had active implementation projects and programs. A number of conservation directories were used to compile a preliminary list of nonprofits that was refined through consultation and in-depth input from the Berks County Conservancy, the Pennsylvania Environmental Council, and the Schuylkill River Greenway Association, with help from The Conservation Fund. Organizations not listed in the directories or unknown to the selecting groups were not included in the preliminary list of approximately 60 organizations. In addition to these staffed nonprofit groups, there may be citizen groups active in the watershed that were not part of this initial survey of nonprofit service coverage.

Following refinement of the list, 30 nonprofits were chosen for the survey, to form a representative sample of nonprofit activity in the watershed. This survey was not intended to be comprehensive, but rather to be a first-step analysis of the watershed’s nonprofit framework: to begin the dialogue of how to address areas under-served by nonprofits, and how nonprofits can work together more effectively towards watershed conservation. Some of the groups that are active in the watershed but were not included in the Nonprofit Survey include the Upper Perkiomen Watershed Coalition, the Monocacy Hill Conservation Association, the Historic Preservation Trust of Berks County and the Friends of the Manayunk Canal.

After selecting the 30 nonprofit targets, a survey was developed to cover four general topic areas. The survey posed the following questions:

1. *What geographic areas does the nonprofit organization serve?*
2. *What types of activities are conducted by the nonprofit organization?*
3. *How is the nonprofit organization funded/supported?*
4. *What is the greatest need for the watershed?*

Nonprofit groups marked their geographic area of service on county and subwatershed maps. The service area boundaries were converted to digital maps for gap analysis using a geographic information system (GIS). Maps of the stated service area boundaries of the nonprofits surveyed for this Plan are accessible in the online Reference Documents as [Nonprofit Service Area](#) maps. It should be stressed that these service area maps reflect the information given directly by the nonprofits, and may not perfectly reflect the true spatial extent or particular service locations of these nonprofits. For example, the Eastern Pennsylvania Coalition for Abandoned Mine Reclamation (EPCAMR) primarily works in Schuylkill and Carbon Counties, but also partners with organizations in parts of Berks County; therefore, EPCAMR included Berks County in its service area map.

Information on nonprofit activities was grouped into 10 categories, and nonprofit input on funding, capacity and watershed needs summarized for analysis and future reference. A full address list of nonprofit organizations surveyed for the institutional assessment is included in the [Nonprofit Organization Contact List](#) in the online Reference Documents.

7.3.2 Results of the Nonprofit Survey

7.3.2.1 Geographic Gap Analysis

The 30 nonprofits surveyed in the Schuylkill River watershed were diverse in mission and geographic reach. **Table 7.1a Nonprofit Service Areas and Activities** and **Table 7.1b Continuation of Nonprofit Service Areas and Activities**, show the participation of the 30 nonprofits surveyed in each of the 10 activity types, and their corresponding geographic coverage. The geographic areas served range from a local community level to an international level. Nonprofits indicated whether their involvement in a specific type of activity was of primary, secondary or limited focus. The indication of focus was intended to clarify the level of involvement of each nonprofit surveyed in each activity, in order to discriminate between those activities that are the main focus of a group's resources and those activities in which the nonprofit is only peripherally involved.

Table 7.1a Nonprofit Service Areas and Activities

KEY: 1 = Primary activity 2 = Secondary activity 3 = Peripheral activity No = Not an activity of the nonprofit organization. Note: Activities occur in the organization's primary geographic area unless otherwise noted.								
Geographic Focus	Primary Geographic Area	Organization	Advocacy	Land Preservation	Recreation	Redevelopment	Research	Water Quality Projects
Watershed	Schuylkill River Watershed	Academy of Natural Sciences – Patrick Center for Environmental Research	No	No	No	1	1 Local to International	1 Local to International
Watershed	Schuylkill River Watershed	Schuylkill River Greenway Association	3	2	1	1	No	No
Watershed	Schuylkill River Watershed	Schuylkill Riverkeeper of the Delaware Riverkeeper Network	1	No	3	No	3	2
Watershed, Regional to International	Varies According to Activity	Hawk Mountain Sanctuary Association	No	1 Within Sanctuary Viewshed	2 On-site Only	No	1 Local to International	No
Watershed, Local to International	Schuylkill River Watershed	Stroud Water Research Center	No	No	No	No	1	2
Regional	Eastern PA, Southern NJ, and the DE, MD, VA Peninsula (most activity is in Bucks, Chester, Montgomery, Delaware, and Philadelphia Counties)	Natural Lands Trust	3	1	No	No	3	3

Table 7.1a Nonprofit Service Areas and Activities

KEY: 1 = Primary activity 2 = Secondary activity 3 = Peripheral activity No = Not an activity of the nonprofit organization. Note: Activities occur in the organization's primary geographic area unless otherwise noted.								
Geographic Focus	Primary Geographic Area	Organization	Advocacy	Land Preservation	Recreation	Redevelopment	Research	Water Quality Projects
State	PA	Pennsylvania Environmental Council	1	No	3	2 Bucks, Chester, Montgomery, Philadelphia, and Delaware Counties (also near Harrisburg, Wilkes-Barre, Meadeville, and Pittsburgh offices)	2	2 Bucks, Chester, Montgomery, Philadelphia, and Delaware Counties (also near Wilkes-Barre, Meadeville, and Pittsburgh offices)
Regional	Delaware River Watershed	Heritage Conservancy	3	1 Primarily in PA & NJ	No	3 Primarily in PA	2 Primarily in PA & NJ	2 Primarily in PA & NJ
Regional and State	Eastern PA	Morris Arboretum-University of PA	2 Statewide	2	2	3	1 Statewide	2
Regional and State	Bucks, Chester, Montgomery, Delaware, and Philadelphia Counties	Schuylkill Center for Environmental Education	No	2 On-site Only	1 On-site Only	No	1 Statewide	1 Watershed-Wide
Regional	Eastern PA	Wildlands Conservancy	3	1	1 Lehigh Watershed	2 Lehigh Watershed	3 Lehigh Watershed	1 Lehigh Watershed

Table 7.1a Nonprofit Service Areas and Activities

KEY: 1 = Primary activity 2 = Secondary activity 3 = Peripheral activity No = Not an activity of the nonprofit organization. Note: Activities occur in the organization's primary geographic area unless otherwise noted.								
Geographic Focus	Primary Geographic Area	Organization	Advocacy	Land Preservation	Recreation	Redevelopment	Research	Water Quality Projects
Regional	Anthracite Coal Region in Eastern PA	Eastern Pennsylvania Coalition for Abandoned Mine Reclamation	1	1	No	No	No	1
County	Berks	Berks County Conservancy	2	1	3	1	1	1
County	Chester	Brandywine Conservancy	3	1	No	No	2	2
County	Berks	Trout Unlimited – Tulpehocken Chapter	No	No	2	No	No	1
County	Berks	Kutztown University Environmental Science Forum	No	3	3	No	1	3
County	Schuylkill	Schuylkill County Conservancy	1	2	1	1	3	1
County	Montgomery	Montgomery County Lands Trust	2	1	2	1	No	3
Subwatershed	French and Pickering Creek	French and Pickering Creeks Conservation Trust	1	1	3	3	1	2
Subwatershed	Wissahickon Creek, to Philadelphia City Boundary	Friends of the Wissahickon	1	2	No	No	No	2
Subwatershed, County	Valley Creek, Northern Chester	Green Valleys Association	1	2	2	No	1	1
Municipal, Subwatershed	West Tridiferenn Township, Valley Creek	Open Land Conservancy	1	1	1	No	No	2

Table 7.1a Nonprofit Service Areas and Activities

<p><i>KEY: 1 = Primary activity</i> <i>2 = Secondary activity</i> <i>3 = Peripheral activity</i> <i>No = Not an activity of the nonprofit organization.</i> <i>Note: Activities occur in the organization's primary geographic area unless otherwise noted.</i></p>								
<i>Geographic Focus</i>	<i>Primary Geographic Area</i>	<i>Organization</i>	<i>Advocacy</i>	<i>Land Preservation</i>	<i>Recreation</i>	<i>Redevelopment</i>	<i>Research</i>	<i>Water Quality Projects</i>
Subwatershed	Perkiomen Creek	Perkiomen Watershed Conservancy	1	1	3	No	No	1
Subwatershed	Schuylkill River in Schuylkill County	Schuylkill Headwaters Association	No	No	1	No	No	1
Subwatershed	Tidal Schuylkill	Schuylkill River Development Council	1	1	1	1	2	2
Subwatershed	Perkiomen Creek	Trout Unlimited – Perkiomen Chapter	1	3	2	No	3	1
Subwatershed	Wissahickon Creek	Wissahickon Valley Watershed Association	1	1	1	No	No	2
Municipal	Phoenixville	Phoenixville Iron Canal & Trails Association	1	2	1	2	No	1
Municipal	40 mile radius of Pottstown	Greater Pottstown Watershed Alliance	2	No	2	No	2	1
Municipal	Lower Merion Township	Lower Merion Conservancy	2	1	2	No	1	1

Table 7.1b Continuation of Nonprofit Service Areas and Activities

KEY: 1 = Primary activity 2 = Secondary activity 3 = Peripheral activity No = Not an activity of the nonprofit organization. Note: Activities occur in the organization's primary geographic area unless otherwise noted.							
<i>Geographic Focus</i>	<i>Primary Geographic Area</i>	<i>Organization</i>	<i>Water Quality Testing</i>	<i>Education and Outreach</i>	<i>Historic Preservation</i>	<i>Park/Preserve Management</i>	<i>Other</i>
Watershed	Schuylkill Watershed	Academy of Natural Sciences – Patrick Center for Environmental Research	1	1	No	3	Maintenance of museum site
Watershed	Schuylkill Watershed	Schuylkill River Greenway Association	No	1	1	1	Manage state and national heritage areas; develop regional land and water trail system
Watershed	Schuylkill Watershed	Schuylkill Riverkeeper of the Delaware Riverkeeper Network	2	2	No	No	Citizen action: organize watershed groups, facilitate education and advocacy
Watershed, Regional to International	Varies According to Activity	Hawk Mountain Sanctuary Association	No	1 Local to National	No	1 On-site Only	Wildlife monitoring
Watershed, Local to International	Schuylkill River Watershed	Stroud Water Research Center	1	1	No	No	
Regional	Eastern PA, Southern NJ, and the DE, MD, VA Peninsula (most activity is in Bucks, Montgomery, Chester, Delaware, and Philadelphia Counties)	Natural Lands Trust	No	3	3	3	Conservation/land use planning

Table 7.1b Continuation of Nonprofit Service Areas and Activities

KEY: 1 = Primary activity 2 = Secondary activity 3 = Peripheral activity No = Not an activity of the nonprofit organization. Note: Activities occur in the organization's primary geographic area unless otherwise noted.							
<i>Geographic Focus</i>	<i>Primary Geographic Area</i>	<i>Organization</i>	<i>Water Quality Testing</i>	<i>Education and Outreach</i>	<i>Historic Preservation</i>	<i>Park/Preserve Management</i>	<i>Other</i>
State	PA	Pennsylvania Environmental Council	No	1	No	No	
Region	Delaware River Watershed	Heritage Conservancy	No	2	1	2	
Region and State	Eastern PA	Morris Arboretum - University of PA	3 On-site Only	1 Mid-Atlantic Region	1 On-site Only	2 On-site Only	Greenway activities
Region and State	Bucks, Chester, Montgomery, Delaware, and Philadelphia Counties	Schuylkill Center for Environmental Education	1 State-wide	1 State to International	2 On-site Only	1 On-site Only	Land restoration/stewardship
Region	Eastern PA	Wildlands Conservancy	1 Lehigh Watershed	1 Lehigh Watershed	No	2 Lehigh Watershed	
Region	Anthracite Coal Region in Eastern PA	Eastern Pennsylvania Coalition for Abandoned Mine Reclamation	1	1	No	No	Watershed group organization & development, planning, grant-writing assistance, training, tours
County	Berks	Berks County Conservancy	2	2	1	3	
County	Chester	Brandywine Conservancy	No	2	2	3	Use/growth management
County	Berks	Trout Unlimited – Tulpehocken Chapter	2	2	No	No	

Table 7.1b Continuation of Nonprofit Service Areas and Activities

<p><i>KEY: 1 = Primary activity</i> <i>2 = Secondary activity</i> <i>3 = Peripheral activity</i> <i>No = Not an activity of the nonprofit organization.</i> <i>Note: Activities occur in the organization's primary geographic area unless otherwise noted.</i></p>							
Geographic Focus	Primary Geographic Area	Organization	Water Quality Testing	Education and Outreach	Historic Preservation	Park/Preserve Management	Other
County	Berks	Kutztown University Environmental Science Forum	3	1	3	3	
County	Schuylkill	Schuylkill County Conservancy	2	1	3	No	
County	Montgomery	Montgomery County Lands Trust	No	1	No	2	Collaborative partnerships/watchdog for Montgomery County for land preservation
Subwatersheds	French and Pickering Creek	French and Pickering Creeks Conservation Trust	No	1	1	1	
Subwatershed	Wissahickon Creek, to Phila. City Boundary	Friends of the Wissahickon	No	1	1	2	
Subwatershed, County	Valley Creek, Northern Chester	Green Valleys Association	1	1	2	2	
Municipal Subwatershed	West Tridiferenn Township, Valley Creek	Open Land Conservancy	No	1	3	1	
Subwatershed	Perkiomen Creek	Perkiomen Watershed Conservancy	No	1	No	No	
Subwatershed	Schuylkill River in Schuylkill County	Schuylkill Headwaters Association	1	1	No	No	
Subwatershed	Tidal Schuylkill	Schuylkill River Development Council	No	1	No	1	Planning

Table 7.1b Continuation of Nonprofit Service Areas and Activities

KEY: 1 = Primary activity 2 = Secondary activity 3 = Peripheral activity No = Not an activity of the nonprofit organization. Note: Activities occur in the organization's primary geographic area unless otherwise noted.							
<i>Geographic Focus</i>	<i>Primary Geographic Area</i>	<i>Organization</i>	<i>Water Quality Testing</i>	<i>Education and Outreach</i>	<i>Historic Preservation</i>	<i>Park/Preserve Management</i>	<i>Other</i>
Subwatershed	Perkiomen Creek	Trout Unlimited – Perkiomen Chapter	2	2	3	3	
Subwatershed	Wissahickon Creek	Wissahickon Valley Watershed Association	2	1	3	1	
Municipal	Phoenixville	Phoenixville Iron Canal & Trails Association	2	1	2	3	
Municipal	40 mile radius of Pottstown	Greater Pottstown Watershed Alliance	2	2	No	3	
Municipal	Lower Merion Township	Lower Merion Conservancy	1	1	1	No	

Table 7.2 lists the nonprofit activities reported, along with the number and percentage of organizations actively involved in that type of programming. The “other” category includes activities such as wildlife monitoring, planning, training, citizen action/grassroots organization, and technical assistance.

Table 7.2 Number and Percentage of Nonprofits Participating in Each Activity

<i>Activity</i>	<i>Nonprofits Participating</i>	
	<i>Percent of Groups</i>	<i>Number of Groups (of 30)</i>
Education/outreach	100%	30
Water quality projects	93%	28
Land preservation	77%	23
Recreation	77%	23
Advocacy	77%	23
Park/preserve management	70%	21
Research	67%	20
Water quality testing	60%	18
Historic Preservation	57%	17
Community/urban redevelopment	40%	12
Other	37%	11

Table 7.3 shows nonprofit participation in each activity broken down according to the level of focus for that activity: i.e., whether the activity is a primary, secondary or peripheral focus of the organizations polled. As shown in these two tables, the majority of the nonprofits surveyed conduct education and outreach, land preservation, recreation, and water quality projects.

Table 7.3 Percentage of Nonprofits Participating in Each Activity by Level of Focus

<i>Activity</i>	<i>Percent of Nonprofits Participating by Level of Focus</i>		
	<i>Primary</i>	<i>Secondary</i>	<i>Peripheral</i>
Education/outreach	73%	23%	3%
Water quality projects	47%	37%	10%
Land preservation	47%	23%	7%
Recreation	30%	27%	20%
Advocacy	43%	17%	17%
Park/preserve management	23%	20%	27%
Water quality testing	27%	27%	7%
Historic preservation	23%	13%	20%
Research	33%	17%	17%
Community/urban redevelopment	20%	10%	10%

The following discussion details the geographic gap analysis findings for each type of nonprofit activity, based on the subwatersheds designated in the map: [Watershed Orientation](#). It should be noted that nonprofit groups serving the entire watershed or larger geographic areas, and groups which are involved in a specific activity on an on-site only basis, were not included in the gap analysis and are listed by name on the maps of Areas Served by Nonprofits for each activity, as referenced by activity name in the sections below. Although some groups reported offering services across the entire watershed, it is not likely that this service is truly comprehensive watershed-wide. Addition of these groups to the maps could skew the discussion of local services. Therefore, these groups were removed from the gap analysis, resulting in a more conservative assessment of nonprofit service across the watershed.

For the local nonprofits included in the gap analysis, the service areas mapped represent the areas as reported by the organizations themselves. These boundaries may not reflect the actual distribution of an organization's services, as some groups may have drawn their boundaries larger than the service area they realistically cover. Nonprofits may have a limited capacity to lead comprehensive efforts throughout their designated service area. The responses reveal the area in which organizations operate, not necessarily where they have fully focused efforts. For example, a county-wide organization may have a few, targeted projects in various areas or communities of that county, rather than leading a wide-spread effort throughout their entire designated service area.

Because groups with greater than watershed-wide coverage or with site-specific coverage were removed from the mapping analysis, and because only a sampling of nonprofit groups were surveyed, the maps and discussion below should be interpreted carefully. The maps and tables of nonprofit overlap and gaps by activity highlight where local efforts may be concentrated, and indicate the probable intensity and distribution of nonprofit service throughout the Schuylkill River watershed. The maps should not be interpreted as a definitive analysis of all nonprofit activities in the watershed. Gaps represent areas that *may* be under-served by nonprofits, while overlaps indicate *potential* areas for improved cooperation.

▪ **Nonprofits Conducting Education and Outreach Activities**

Based on the results of the geographic analysis, the majority of the Schuylkill River watershed is fairly well served by nonprofits for education and outreach. All 30 organizations surveyed engage in education and outreach activities in the watershed at some level, and for 73% (22) of them, this is a primary activity. Of the 30 nonprofits surveyed, 10 conduct education and outreach activities throughout the entire watershed and were not included in the gap analysis map. These organizations are listed separately in **Table 7.4**. Additionally, the Wildlands Conservancy conducts education and outreach primarily within the Lehigh Watershed and also was not included in the map. However, none of the local groups surveyed served portions of the Schuylkill River 1 subwatershed, and this may represent an area under-served by nonprofits conducting education and outreach.

Examples of education and outreach activities reported by the nonprofits surveyed include: education projects funded by the Schuylkill River Greenway Association for the State and Federal Heritage Corridor; educational programs at Hawk Mountain Sanctuary and the Schuylkill Center for Environmental Education; workshops and conferences that are held by the Heritage Conservancy; and educational exhibits or signage at the Morris Arboretum and the Academy of Natural Sciences.

Table 7.4 Nonprofits Conducting Education and Outreach Activities Watershed-wide

Hawk Mountain Sanctuary Association	Pennsylvania Environmental Council
Heritage Conservancy	Schuylkill Center for Environmental Education

Morris Arboretum/University of PA	Schuykill Riverkeeper
Natural Lands Trust	Schuykill River Greenway Association
Patrick Center for Environmental Research - Academy of Natural Sciences	Stroud Water Research Center

The map: [Education & Outreach](#) displays areas in the watershed served by one, two, three or more of the nonprofit groups surveyed. Areas not served by any of the local nonprofits surveyed appear white (including areas that may be served by the nonprofits listed in *Table 7.4*); areas of overlap appear in tones of gray, according to the number of overlapping nonprofits in that area. The geographic gap analysis revealed many portions of the watershed where several organizations overlap in conducting education and outreach. The following **Table 7.5** lists nonprofit involvement for those areas where there are several local groups working on education and outreach. Again, it should be noted that the map and table show areas in which the local organizations report they operate, and do not include the services of the watershed-wide nonprofits listed in *Table 7.4* above. There may be a discrepancy between a nonprofit's reported service area, and where they actually focus on that activity within the greater service area.

Table 7.5 Nonprofit Education and Outreach: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuykill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Northwestern Quarter of Schuykill Watershed (Including Schuykill River 8 Subwatershed and Lower Little Schuykill River Subwatershed North)	Schuykill County	Schuykill Headwaters Association Schuykill County Conservancy E. PA Coalition for Abandoned Mine Reclamation
Schuykill River 8 and Little Schuykill River Lower Subwatersheds	Berks County	Schuykill Headwaters Association E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown Environmental Science Forum
Small Part of Schuykill River 3 and French Creek Subwatersheds	Phoenixville Area	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Phoenixville Iron Canal & Trails Association Brandywine Conservancy Greater Pottstown Watershed Alliance
French Creek Subwatershed	Berks County	French & Pickering Creeks Conservation Trust Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum
	Remainder and Majority of French Creek Subwatershed (Chester County)	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Brandywine Conservancy
Schuykill River 3 Subwatershed	Chester County	Brandywine Conservancy Greater Pottstown Watershed Alliance French & Pickering Creeks Conservation Trust Green Valleys Association

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Pickering Creek Subwatershed	Entire Subwatershed	French & Pickering Creeks Conservation Trust Green Valleys Association Brandywine Conservancy
Valley Creek Subwatershed	Entire Subwatershed	Open Land Conservancy Brandywine Conservancy Green Valleys Association
Schuylkill River 4 Subwatershed	Chester County	Brandywine Conservancy Trout Unlimited - Tulpehocken Chapter Green Valleys Association French & Pickering Creeks Conservation Trust Greater Pottstown Watershed Alliance
	Montgomery County	Montgomery County Lands Trust Trout Unlimited - Tulpehocken Chapter Greater Pottstown Watershed Alliance
	Berks County	Berks County Conservancy Trout Unlimited - Tulpehocken Chapter E. PA Coalition for Abandoned Mine Reclamation Greater Pottstown Watershed Alliance Kutztown University Environmental Science Forum
Upper Perkiomen Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Perkiomen Watershed Conservancy Kutztown University Environmental Science Forum Trout Unlimited - Perkiomen Chapter
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Montgomery County Lands Trust Trout Unlimited - Perkiomen Chapter
	Lehigh and Bucks Counties	Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Perkiomen Chapter
Swamp Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Perkiomen Watershed Conservancy Kutztown University Environmental Science Forum Trout Unlimited - Tulpehocken Chapter
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Montgomery County Lands Trust Trout Unlimited - Tulpehocken Chapter
Lower Manatawny Creek Subwatershed	Berks County	Greater Pottstown Watershed Alliance E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum Trout Unlimited - Tulpehocken Chapter
	Montgomery County	Greater Pottstown Watershed Alliance Berks County Conservancy Montgomery County Lands Trust Trout Unlimited - Tulpehocken Chapter

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Large North Central Portion of Watershed	Remainder and Majority of Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum Trout Unlimited - Tulpehocken Chapter

** The watershed-wide organizations engaging in education and outreach overlap with all of the above groups.*

▪ **Nonprofits Conducting Research Activities**

One third of the watershed nonprofits surveyed engage in research as a primary activity, while a total of 67% (20) pursue research at some level of focus. Of these 20 nonprofits, 9 conduct research throughout the entire watershed, and were not included in the gap analysis map (see **Table 7.6**). The Wildlands Conservancy conducts research primarily in the Lehigh Watershed and also was not included in the map.

For this study, research activities were defined as any scientific research, other than water quality testing, conducted by the nonprofits. Examples of research activities include: Morris Arboretum’s inventory of the flora of Pennsylvania; numerous scientific studies by the Patrick Center for Environmental Research and the Stroud Water Research Center; Hawk Mountain Sanctuary’s research on birds of prey; and the Heritage Conservancy’s aerial assessment of riparian buffers in the Schuylkill River watershed.

Table 7.6 Nonprofits Conducting Research Activities Watershed-wide

Hawk Mountain Sanctuary Association	Pennsylvania Environmental Council
Heritage Conservancy	Schuylkill Center for Environmental Education
Morris Arboretum/University of PA	Stroud Water Research Center
Natural Lands Trust	Schuylkill Riverkeeper
Patrick Center for Environmental Research - Academy of Natural Sciences	

Geographic analysis suggested that the northern and central portions of the Schuylkill River watershed are fairly well served by nonprofits engaging in research activities, as displayed in the map: [Research](#). The highest concentration of research activities occurs in Berks and Chester Counties, especially in the French Creek, Pickering Creek, Schuylkill River 3, Schuylkill River 4, Lower Manatawny and Upper Perkiomen subwatersheds. **Table 7.7** describes nonprofit involvement for those subwatersheds where there are several nonprofits conducting research. Most of the subwatersheds located in Montgomery, Bucks, and Philadelphia Counties are not covered by any of the nonprofits surveyed other than the seven noted watershed-wide groups, and represent potential gaps in local nonprofits conducting research activities.

Table 7.7 Nonprofit Research: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
French Creek Subwatershed	Berks County	French & Pickering Creeks Conservation Trust Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum
	Chester County	French & Pickering Creeks Conservation Trust Berks County Conservancy Brandywine Conservancy Green Valleys Association
Pickering Creek Subwatershed	Entire Subwatershed	French & Pickering Creeks Conservation Trust Brandywine Conservancy Green Valleys Association
Schuylkill River 3 Subwatershed	Chester County	Brandywine Conservancy Greater Pottstown Watershed Alliance French & Pickering Creeks Conservation Trust Green Valleys Association
Schuylkill River 4 Subwatershed	Berks County	Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum Greater Pottstown Watershed Alliance
	Chester County	Brandywine Conservancy Greater Pottstown Watershed Alliance French & Pickering Creeks Conservation Trust Green Valleys Association
Upper Perkiomen Creek Subwatershed	Berks County	Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum Trout Unlimited - Perkiomen Chapter
Lower Manatawny Creek Subwatershed	Berks County	Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum Greater Pottstown Watershed Alliance
Large North Central Portion of Watershed	Remainder and Majority of Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum

* *The watershed-wide organizations engaging in research overlap with all of the above groups.*

▪ **Nonprofits Conducting Water Quality Testing**

A total of 18 (60%) organizations out of the 30 surveyed engage in water quality testing activities of some kind throughout the watershed. However, only eight groups consider water quality testing a primary activity. Of the 18 nonprofits, four conduct water quality testing watershed-wide and were not included on the corresponding map (see **Table 7.8**). Additionally, the Wildlands Conservancy conducts water quality testing primarily in the Lehigh Watershed and the Morris Arboretum conducts water quality testing within the Arboretum. Both of these organizations also were not included in the map.

Table 7.8 Nonprofits Conducting Water Quality Testing Watershed-wide

Schuylkill Center for Environmental Education	Schuylkill Riverkeeper
Patrick Center for Environmental Research - Academy of Natural Sciences	Stroud Water Research Center

The geographic analysis revealed that while much of the watershed is covered for water quality testing, there are areas that may not be well addressed by local nonprofit organizations (see the map: [Water Quality Testing](#)). Subwatersheds that may be under-served for water quality testing by nonprofits include: the Unami Creek, East Branch of the Perkiomen Creek, Lower Perkiomen Creek, Skippack Creek, Schuylkill River 2 and Schuylkill Tidal. Additionally, portions of the Schuylkill River 1 subwatershed may be under-served by nonprofits doing water quality testing. Many watershed areas are served by three or more organizations conducting water quality testing within specific subwatersheds. **Table 7.9** outlines those subwatersheds in which there are several local nonprofits working on water quality testing.

The geographic results of this analysis may not represent the true state of water quality testing in the Schuylkill River watershed. While much of the watershed appears to be covered by groups conducting testing, a finding by the Patrick Center for Environmental Research at the Academy of Natural Sciences has been the lack of consistent and comprehensive water quality data. Even though watershed groups report that their service areas cover much of the watershed, there remains the question of which streams really have ongoing monitoring efforts, and what kind of data is being collected. Additionally, it should be noted that there are many volunteer monitoring efforts and other agency monitoring projects underway that are not included in this analysis. However, currently there is no comprehensive, watershed-wide monitoring program for the Schuylkill River watershed.

Table 7.9 Nonprofit Water Quality Testing: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	Phoenixville Iron Canal & Trails Association Berks County Conservancy Green Valleys Association Greater Pottstown Watershed Alliance
French Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum
Upper Perkiomen Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Trout Unlimited - Perkiomen Chapter Kutztown University Environmental Science Forum
Swamp Creek	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Trout Unlimited - Tulpehocken Chapter Kutztown University Environmental Science Forum
Schuylkill River 4 Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Trout Unlimited - Tulpehocken Chapter Berks County Conservancy Kutztown University Environmental Science Forum Greater Pottstown Watershed Alliance

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Lower Manatawny Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum Trout Unlimited - Tulpehocken Chapter Berks County Conservancy Greater Pottstown Watershed Alliance
	Montgomery County	Trout Unlimited - Tulpehocken Chapter Berks County Conservancy Greater Pottstown Watershed Alliance
Large North Central Portion of Watershed	Remainder and Majority of Berks County	E. PA Coalition for Abandoned Mine Reclamation Trout Unlimited - Tulpehocken Chapter Berks County Conservancy Kutztown University Environmental Science Forum

* *The watershed-wide organizations engaging in water quality testing overlap with all of the above groups.*

▪ **Nonprofit Organizations Conducting Water Quality Projects**

A total of 28 (93%) out of 30 nonprofits surveyed engage in water quality projects, such as stream bank restoration, throughout the watershed. Fourteen groups consider water quality projects one of their core activities. Of the 30 nonprofits surveyed, seven conduct water quality projects throughout the entire watershed and were not included in the gap analysis map (see **Table 7.10**). The Wildlands Conservancy conducts water quality projects primarily in the Lehigh Watershed and also was not included in the map. The Pennsylvania Environmental Council, which was included in the gap analysis map, has water quality projects near its Philadelphia office that encompass Bucks, Chester, Delaware, Philadelphia, and Montgomery Counties.

Examples of water quality projects include: streambank restoration on Paper Mill Run by the Morris Arboretum; a Manatawny Dam Removal Study by the Patrick Center for Environmental Research; the Heritage Conservancy’s riparian restoration projects; and technical assistance to other organizations by the Stroud Water Research Center in the development of water quality projects.

Table 7.10 Nonprofits Conducting Water Quality Projects Watershed-wide

Heritage Conservancy	Schuylkill Center for Environmental Education
Morris Arboretum/University of PA	Schuylkill Riverkeeper
Natural Lands Trust	Stroud Water Research Center
Patrick Center for Environmental Research - Academy of Natural Sciences	

Areas of overlap and those potentially under-served by nonprofits are presented visually in the map: [Water Quality Projects](#). The entire watershed is served by at least one local organization of those surveyed, and many areas are served by several nonprofits conducting water quality projects. **Table 7.11** describes nonprofit involvement for those subwatersheds where there are several groups working on water quality projects. Again, there may be other groups not surveyed, or citizen groups, or public agencies involved in water quality projects that were not represented in this survey.

Table 7.11 Nonprofit Water Quality Projects: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Northwestern Quarter of Schuylkill Watershed (Including Schuylkill River 8 Subwatershed and Lower Little Schuylkill River Subwatershed North)	Schuylkill County	Schuylkill Headwaters Association Schuylkill County Conservancy E. PA Coalition for Abandoned Mine Reclamation
Schuylkill River 8 and Little Schuylkill River Lower Subwatersheds	Berks County	Schuylkill Headwaters Association Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	Phoenixville Iron Canal & Trails Association Berks County Conservancy Brandywine Conservancy French & Pickering Creeks Conservation Trust Green Valleys Association Greater Pottstown Watershed Alliance Pennsylvania Environmental Council
French Creek Subwatershed	Berks County	French & Pickering Creeks Conservation Trust Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum
	Remainder and Majority French Creek Subwatershed (Chester County)	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Brandywine Conservancy Pennsylvania Environmental Council
Pickering Creek Subwatershed	Entire Subwatershed	Green Valleys Association French & Pickering Creeks Conservation Trust Brandywine Conservancy Pennsylvania Environmental Council
Valley Creek Subwatershed	Entire Subwatershed	Green Valleys Association Open Land Conservancy Brandywine Conservancy Pennsylvania Environmental Council
Schuylkill River 3 Subwatershed	Chester County	Green Valleys Association Greater Pottstown Watershed Alliance Brandywine Conservancy French & Pickering Creeks Conservation Trust Pennsylvania Environmental Council
	Montgomery County	Greater Pottstown Watershed Alliance Pennsylvania Environmental Council Montgomery County Lands Trust
Schuylkill River 4 Subwatershed	Chester County	Green Valleys Association Trout Unlimited - Tulpehocken Chapter Greater Pottstown Watershed Alliance French & Pickering Creeks Conservation Trust Brandywine Conservancy Pennsylvania Environmental Council

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Schuylkill River 4 Subwatershed	Montgomery County	Trout Unlimited - Tulpehocken Chapter Greater Pottstown Watershed Alliance Montgomery County Lands Trust Pennsylvania Environmental Council
	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Trout Unlimited - Tulpehocken Chapter Kutztown University Environmental Science Forum Greater Pottstown Watershed Alliance
Upper Perkiomen Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Perkiomen Chapter Kutztown University Environmental Science Forum
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Perkiomen Chapter Montgomery County Lands Trust Pennsylvania Environmental Council
	Lehigh & Bucks Counties	Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Perkiomen Chapter Pennsylvania Environmental Council
Lower Perkiomen Creek Subwatershed	Entire Subwatershed (Montgomery County)	Perkiomen Watershed Conservancy Montgomery County Lands Trust Pennsylvania Environmental Council
East Branch Perkiomen Creek	Montgomery County	Perkiomen Watershed Conservancy Montgomery County Lands Trust Pennsylvania Environmental Council
Skippack Creek Subwatershed	Entire Subwatershed (Montgomery County)	Perkiomen Watershed Conservancy Montgomery County Lands Trust Pennsylvania Environmental Council
Swamp Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Tulpehocken Chapter Kutztown University Environmental Science Forum
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Tulpehocken Chapter Montgomery County Lands Trust Pennsylvania Environmental Council
Lower Manatawny Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Trout Unlimited - Tulpehocken Chapter Berks County Conservancy Greater Pottstown Watershed Alliance Kutztown University Environmental Science Forum

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Lower Manatawny Creek Subwatershed	Montgomery County	Trout Unlimited - Tulpehocken Chapter Berks County Conservancy Greater Pottstown Watershed Alliance Montgomery County Lands Trust Pennsylvania Environmental Council
Upper Wissahickon Creek and Sandy Run Subwatersheds	Entire Subwatersheds (Montgomery County)	Montgomery County Lands Trust Wissahickon Valley Watershed Association Pennsylvania Environmental Council
Lower Wissahickon Creek Subwatershed	Philadelphia County	Friends of the Wissahickon Wissahickon Valley Watershed Association Pennsylvania Environmental Council
	Montgomery County	Montgomery County Lands Trust Wissahickon Valley Watershed Association Pennsylvania Environmental Council
Schuylkill River 2 Subwatershed	Chester County	Brandywine Conservancy Green Valleys Association Pennsylvania Environmental Council
Schuylkill River 1 Subwatershed	Part of Subwatershed in Montgomery County	Lower Merion Conservancy Montgomery County Lands Trust Pennsylvania Environmental Council
Large North Central Portion of Watershed	Majority of Berks County	E. PA Coalition for Abandoned Mine Reclamation Trout Unlimited - Tulpehocken Chapter Berks County Conservancy Kutztown University Environmental Science Forum

*The watershed-wide organizations engaging in water quality projects overlap with all of the above groups.

▪ **Nonprofit Organizations Conducting Land Preservation Activities**

77% (23) of the nonprofits surveyed engage in land preservation activities throughout the watershed. Land preservation is a primary activity for 47% (14) of the surveyed groups. Of the 23 nonprofits, five conduct land preservation throughout the entire watershed, and were not included in the gap analysis map (see **Table 7.12**). The Hawk Mountain Sanctuary and the Schuylkill Center for Environmental Education conduct land preservation activities related to their specific sites and also are not included in the map. Hawk Mountain conducts land preservation activities within the viewshed of its sanctuary property and the Schuylkill Center conducts land management on its site only. Aside from these watershed-wide and site-specific groups, none of the local nonprofits surveyed were active in land preservation for portions of the Schuylkill River 1 and Upper Little Schuylkill River subwatersheds.

Examples of land preservation activities include: the Schuylkill River Trail, under development by the Schuylkill River Greenway Association; the Morris Arboretum’s analysis identifying strategic lands to be preserved; and the more conventional land preservation activities of land trusts and conservancies.

Table 7.12 Nonprofits Conducting Land Preservation Activities Watershed-wide

Heritage Conservancy	Schuylkill River Greenway Association
Morris Arboretum/University of PA	Wildlands Conservancy
Natural Lands Trust	

As shown by the map: [Land Preservation](#), most of the Schuylkill River watershed is covered by at least one local organization and, in many cases, there are three or more organizations working on land preservation within the same subwatershed. **Table 7.13** describes nonprofit involvement for those subwatersheds where there are several local groups working on land preservation.

Table 7.13 Nonprofit Land Preservation: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Phoenixville Iron Canal & Trails Association Brandywine Conservancy
French Creek Subwatershed	Berks County	French & Pickering Creeks Conservation Trust Berks County Conservancy Kutztown University Environmental Science Forum
	Remainder and Majority French Creek Subwatershed (Chester County)	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Brandywine Conservancy
Pickering Creek Subwatershed	Entire Subwatershed	Brandywine Conservancy Green Valleys Association French & Pickering Creeks Conservation Trust
Valley Creek Subwatershed	Entire Subwatershed	Brandywine Conservancy Green Valleys Association Open Land Conservancy
Schuylkill River 3 Subwatershed	Chester County	Brandywine Conservancy Green Valleys Association French & Pickering Creeks Conservation Trust
Upper Perkiomen Creek Subwatershed	Berks County	Trout Unlimited - Perkiomen Chapter Berks County Conservancy Perkiomen Watershed Conservancy Kutztown University Environmental Science Forum
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Montgomery County Lands Trust Trout Unlimited - Perkiomen Chapter
	Lehigh & Bucks Counties	Trout Unlimited - Perkiomen Chapter Berks County Conservancy Perkiomen Watershed Conservancy
Swamp Creek Subwatershed	Berks County	Berks County Conservancy Perkiomen Watershed Conservancy Kutztown University Environmental Science Forum
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Montgomery County Lands Trust

*The watershed-wide organizations engaging in land preservation overlap with all of the above groups.

▪ **Nonprofit Organizations Conducting Historic Preservation Activities**

A total of 17 out of 30 surveyed organizations engage in historic preservation activities in the Schuylkill River watershed. Historic preservation is the primary activity of only seven (23%) of these 17 groups. In addition, three of these nonprofits conduct historic preservation throughout the entire watershed and were not included in the geographic gap analysis (see **Table 7.14**). Two organizations, the Schuylkill Center for Environmental Education and the Morris Arboretum, conduct historic preservation activities on their respective sites only and are also not included in the map. There are a number of historic preservation societies that were not part of our survey but were mentioned during the public meetings, and should be included in future surveys and as part of the watershed nonprofit network.

Table 7.14 Nonprofits Conducting Historic Preservation Watershed-wide

Heritage Conservancy Natural Lands Trust	Schuylkill River Greenway Association
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The map: [Historic Preservation](#) shows that approximately one third of the entire watershed is not served by surveyed local nonprofits working on historic preservation. This area includes the Unami Creek, East Branch of the Perkiomen Creek, Lower Perkiomen Creek, Skippack Creek, Schuylkill 2, and the Schuylkill Tidal subwatersheds. Additionally, portions of the Schuylkill 1, Schuylkill 3, and Schuylkill 4 subwatersheds were not served by the local nonprofits surveyed. These areas represent potential gaps in nonprofit historic preservation activities that could be filled by existing nonprofits with environmental or historic preservation missions.

Overlap by three or four organizations occurs in the French Creek, Pickering Creek, and Valley Creek subwatersheds and portions of the Upper Perkiomen Creek and Schuylkill River 3 subwatersheds. Additionally, the remaining subwatersheds in Berks County are served by at least three local organizations. **Table 7.15** lists specific areas where these organizations overlap in historic preservation.

Table 7.15 Nonprofit Historic Preservation: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Phoenixville Iron Canal & Trails Association Brandywine Conservancy
French Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation French & Pickering Creeks Conservation Trust Berks County Conservancy Kutztown University Environmental Science Forum
	Remainder and Majority French Creek Subwatershed (Chester County)	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Brandywine Conservancy

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Pickering Creek Subwatershed	Entire Subwatershed	Green Valleys Association French & Pickering Creeks Conservation Trust Brandywine Conservancy
Valley Creek Subwatershed	Entire Subwatershed	Green Valleys Association Brandywine Conservancy Open Land Conservancy
Schuylkill River 3 Subwatershed	Chester County	Green Valleys Association French & Pickering Creeks Conservation Trust Brandywine Conservancy
Upper Perkiomen Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum Trout Unlimited - Perkiomen Chapter
Large North Central Portion of Watershed	Majority of Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum

* The watershed-wide organizations engaging in historic preservation overlap with all of the above groups.

▪ **Nonprofit Organizations that Conduct Recreation Activities**

A total of 23 out of 30 organizations (77%) engage in recreation activities in the watershed, but only nine of these (30%) consider recreation a primary activity. Of the 23 nonprofits, four address recreation throughout the entire watershed and were not included in the corresponding map (see **Table 7.16**). The Hawk Mountain Sanctuary and the Schuylkill Center for Environmental Education conduct recreation activities on their respective sites. The Wildlands Conservancy conducts recreation activities primarily in the Lehigh Watershed. All three of these organizations are also not included in the geographic analysis map. Areas where none of the surveyed local nonprofits engage in promoting or developing recreation activities include parts of the Unami Creek, Upper and Lower Little Schuylkill River, East Branch of the Perkiomen Creek and the Schuylkill River 1 and 8 subwatersheds. These areas may represent opportunities for existing nonprofits to expand their recreation activities.

Examples of recreation activities include: the effort to extend a trail from Forbidden Drive in Fairmount Park to Fort Washington Park by the Morris Arboretum; the Schuylkill Center for Environmental Education’s field trips and field excursions; the Bike and Boat Program and the management of the D & L Trail by the Wildlands Conservancy; the development of the Schuylkill River Land and Water Trails by the Schuylkill River Greenway Association; and the activities of many other organizations developing and maintaining walking, hiking, or biking trails.

Table 7.16 Nonprofits Conducting Recreation Activities Watershed-wide

Hawk Mountain Sanctuary Association	Schuylkill Riverkeeper
Morris Arboretum/University of PA	Schuylkill River Greenway Association
Pennsylvania Environmental Council	Wildlands Conservancy
Schuylkill Center for Environmental Education	

Most of the Schuylkill River watershed, including a portion of every subwatershed, is served by at least one local organization for recreation. The map: [Recreation](#) displays areas that may be under-served or need coordination by nonprofits for recreation. Many subwatersheds are served by 3 or more nonprofits with recreation activities as part of their mission as described in **Table 7.17**.

Table 7.17 Nonprofit Recreation: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Northwestern Quarter of Schuylkill Watershed (Including Schuylkill River 8 Subwatershed and Lower Little Schuylkill River Subwatershed North)	Schuylkill County	Schuylkill Headwaters Association Schuylkill County Conservancy E. PA Coalition for Abandoned Mine Reclamation
Schuylkill River 8 and Little Schuylkill River Lower Subwatersheds	Berks County	Schuylkill Headwaters Association E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown Environmental Science Forum
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Phoenixville Iron Canal & Trails Association Greater Pottstown Watershed Alliance
French Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown Environmental Science Forum French & Pickering Creeks Conservation Trust
	Remainder and Majority French Creek Subwatershed (Chester County)	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy
Schuylkill River 3 Subwatershed	Chester County	Green Valleys Association French & Pickering Creeks Conservation Trust Greater Pottstown Watershed Alliance
Upper Perkiomen Creek Subwatershed	In Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown Environmental Science Forum Trout Unlimited - Perkiomen Chapter Perkiomen Watershed Conservancy
	Montgomery County	Montgomery County Lands Trust Berks County Conservancy Trout Unlimited - Perkiomen Chapter Perkiomen Watershed Conservancy
	Lehigh & Bucks Counties	Berks County Conservancy Trout Unlimited - Perkiomen Chapter Perkiomen Watershed Conservancy
Swamp Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown Environmental Science Forum Trout Unlimited - Tulpehocken Chapter Perkiomen Watershed Conservancy

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Swamp Creek Subwatershed	Montgomery County	Montgomery County Lands Trust Berks County Conservancy Trout Unlimited - Tulpehocken Chapter Perkiomen Watershed Conservancy
Lower Manatawny Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown Environmental Science Forum Trout Unlimited - Tulpehocken Chapter Greater Pottstown Watershed Alliance
	Montgomery County	Montgomery County Lands Trust Berks County Conservancy Trout Unlimited - Tulpehocken Chapter Greater Pottstown Watershed Alliance
Schuylkill River 4 Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Trout Unlimited - Tulpehocken Chapter Kutztown University Environmental Science Forum Greater Pottstown Watershed Alliance
	Chester County	Greater Pottstown Watershed Alliance Trout Unlimited - Tulpehocken Chapter Green Valleys Association French & Pickering Creeks Conservation Trust
	Montgomery County	Montgomery County Lands Trust Greater Pottstown Watershed Alliance Trout Unlimited - Tulpehocken Chapter
Large North Central Portion of Watershed	Majority of Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum Trout Unlimited - Tulpehocken Chapter

* *The watershed-wide organizations engaging in recreation activities overlap with all of the above groups.*

▪ **Nonprofit Organizations that Conduct Community/Urban Redevelopment Activities**

A total of 12 out of 30 (40%) surveyed organizations reported involvement in community/urban revitalization or redevelopment activities in the watershed. However, only 6 nonprofits (20%) considered redevelopment one of their primary activities. Of the 12 nonprofits involved with this type of activity, four address redevelopment throughout the entire watershed, and were not included in the gap analysis map, as listed in **Table 7.18**. The Wildlands Conservancy conducts redevelopment activities primarily in the Lehigh Watershed and was not included in the map. The Pennsylvania Environmental Council, which is included in the gap analysis map, conducts redevelopment projects near its Philadelphia, office in Bucks, Chester, Delaware, Philadelphia, and Montgomery Counties.

Examples of redevelopment activities include: the Heritage Conservancy’s Conservation Enterprise Program which funds “green” business; the Patrick Center for Environmental Research’s urban park restoration project in Fairmount Park; the urban street tree planting program of the Morris Arboretum; and the brownfield redevelopment program of the Pennsylvania Environmental Council.

Table 7.18 Nonprofits Conducting Redevelopment Activities Watershed-wide

Heritage Conservancy	Morris Arboretum/University of PA
Patrick Center for Environmental Research - Academy of Natural Sciences	Schuylkill River Greenway Association

Much of the Schuylkill River watershed is served by at least one local group conducting redevelopment activities; however, there are a few areas where local groups overlap as displayed in the map: [Redevelopment](#). The majority of redevelopment activities by surveyed nonprofits occur in the French Creek, Swamp Creek, and Upper Perkiomen subwatersheds. Besides the organizations serving the entire watershed, none of the surveyed local nonprofits serve portions of the Unami Creek and the upper Little Schuylkill subwatersheds. The Valley Creek subwatershed and portions of the Schuylkill River 1, Unami Creek, East Branch of the Perkiomen Creek, Lower Wissahickon Creek are served only by the Pennsylvania Environmental Council, which has a large service area and may or may not be actively conducting redevelopment activities in these areas at this time. The generally lower level of nonprofit service for redevelopment activities represented by our gap analysis may reflect the fact that local governments and/or the business community, rather than the nonprofit community, commonly address this activity. Overlap by three organizations does occur in the Phoenixville area, the majority of the French Creek Subwatershed, and the Montgomery County sections of the Lower Manatawny Creek, Swamp Creek, and Upper Perkiomen Creek Subwatersheds. See **Table 7.19** for the specific areas where overlap occurs.

Table 7.19 Nonprofit Community/Urban Redevelopment: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	French & Pickering Creeks Conservation Trust Berks County Conservancy Phoenixville Iron Canal & Trails Association Pennsylvania Environmental Council
French Creek Subwatershed	Chester County	French & Pickering Creeks Conservation Trust Berks County Conservancy Pennsylvania Environmental Council
Lower Manatawny Creek, Swamp Creek, and Upper Perkiomen Creek Subwatersheds	Montgomery County	Berks County Conservancy Pennsylvania Environmental Council Montgomery County Lands Trust

* *The watershed-wide organizations engaging in community/urban redevelopment overlap with all of the above groups.*

▪ **Nonprofits that Conduct Advocacy Activities**

A total of 23 (77%) out of 30 watershed nonprofits surveyed engage in advocacy activities, and 13 of these (43%) make advocacy a primary activity. Of these 23 nonprofits, 7 conduct advocacy activities throughout the entire watershed, and were not included in the gap analysis map (see **Table 7.20**).

Examples of advocacy activities include the Morris Arboretum’s involvement in state advocacy committees, and the Schuylkill River Greenway Association’s work in obtaining designation of the State and Federal Heritage Corridor.

Table 7.20 Nonprofits Conducting Advocacy Watershed-wide

Heritage Conservancy	Schuylkill Riverkeeper
Morris Arboretum/University of PA	Schuylkill River Greenways Association
Natural Lands Trust	Wildlands Conservancy
Pennsylvania Environmental Council	

The map: [Advocacy](#) shows that the Schuylkill River watershed is well covered by local organizations having advocacy as a part of their mission. A considerable amount of overlap occurs throughout the region, and there are few areas where groups do not engage in advocacy activities. Subwatersheds not served by local groups include portions of the Upper Little Schuylkill River and Schuylkill River 1. The French Creek subwatershed is the most heavily concentrated area, with six organizations conducting advocacy activities in different portions of the watershed. The six organizations are: the Green Valleys Association, Berks County Conservancy, French & Pickering Creeks Conservation Trust, Phoenixville Iron Canal and Trails Association, the Brandywine Conservancy, and E. PA Coalition for Abandoned Mine Reclamation. Several other subwatersheds have three or four organizations conducting advocacy activities, as detailed in **Table 7.21** below.

Table 7.21 Nonprofit Advocacy: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	French & Pickering Creeks Conservation Trust Berks County Conservancy Phoenixville Iron Canal & Trails Association Brandywine Conservancy Green Valleys Association Greater Pottstown Watershed Alliance
French Creek Subwatershed	Berks County	French & Pickering Creeks Conservation Trust Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation
	Remainder and Majority French Creek Subwatershed (In Chester County)	Green Valleys Association French & Pickering Creeks Conservation Trust Berks County Conservancy Brandywine Conservancy
Schuylkill River 3 Subwatershed	Chester County	Green Valleys Association French & Pickering Creeks Conservation Trust Brandywine Conservancy Greater Pottstown Watershed Alliance
Schuylkill River 4 Subwatershed	Berks County	Greater Pottstown Watershed Alliance E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy
	Chester County	Green Valleys Association French & Pickering Creeks Conservation Trust Brandywine Conservancy Greater Pottstown Watershed Alliance

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Upper Perkiomen Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Perkiomen Chapter
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Montgomery County Lands Trust Trout Unlimited - Perkiomen Chapter
	Lehigh & Bucks Counties	Berks County Conservancy Perkiomen Watershed Conservancy Trout Unlimited - Perkiomen Chapter
Swamp Creek Subwatershed	Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Perkiomen Watershed Conservancy
	Montgomery County	Berks County Conservancy Perkiomen Watershed Conservancy Montgomery County Lands Trust
Lower Manatawny Creek Subwatershed	Berks County	Greater Pottstown Watershed Alliance E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy
	Montgomery County	Greater Pottstown Watershed Alliance Berks County Conservancy Montgomery County Lands Trust

* *The watershed-wide organizations engaging advocacy overlap with all of the above groups.*

▪ **Nonprofit Organizations that Conduct Park/Preserve Management**

70% of nonprofits surveyed (21 out of 30) engage in park/preserve management activities in the watershed. Only 7 of these (23%) consider park preservation a primary activity. Of these 21 nonprofits, four manage or are consultants in the management of preserves or conservation lands throughout the entire watershed and were not included in the gap analysis map (see **Table 7.22**). Three organizations manage the preserve where they are located and are not included in the gap analysis map: Hawk Mountain Sanctuary Association; Morris Arboretum/University of PA; and Schuylkill Center for Environmental Education. Another organization, the Wildlands Conservancy, is not included in the map because it manages five preserves in the Lehigh Watershed.

Examples of park/preserve management vary according to the organization. These examples include: the Schuylkill River Greenway Association’s management of the State and Federal Heritage Corridor and the management of lands in the Schuylkill River Land and Water Trail System; the Patrick Center for Environmental Research’s consultation and research which aides other organizations in the management of preserves; and the Heritage Conservancy and Natural Lands Trust management of their own preserves.

Table 7.22 Nonprofits Conducting Park/Preserve Management Watershed-wide

Heritage Conservancy	Natural Lands Trust
Patrick Center for Environmental Research - Academy of Natural Sciences	Schuylkill River Greenway Association

The map: [Park/Preserve Management](#) shows that a majority of the watershed is served by at least one local organization participating in land management activities. The greatest concentration of activity is in the French Creek, Valley Creek, Pickering Creek, and the Upper Perkiomen Creek subwatersheds, as well as the subwatershed areas located in Berks County. Additionally, the Upper and Lower Wissahickon, Sandy Run, and portions of the Schuylkill River 3 and 4 subwatersheds are well served by local organizations. See **Table 7.23** for specific areas where three or more organizations overlap.

Besides the organizations serving the entire watershed, none of the surveyed local groups serve portions of the Schuylkill River 1, Unami Creek, East Branch of the Perkiomen Creek, and the upper Little Schuylkill subwatersheds. These areas may be under-served by nonprofits for land management.

Table 7.23 Nonprofit Park/Preservation Management: Specific Areas Where 3 or More Local Organizations Overlap*

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Small Part of Schuylkill River 3 and French Creek Subwatersheds	Phoenixville Area	French & Pickering Creeks Conservation Trust Berks County Conservancy Phoenixville Iron Canal & Trails Association Brandywine Conservancy Green Valleys Association Greater Pottstown Watershed Alliance
French Creek Subwatershed	Berks County	French & Pickering Creeks Conservation Trust Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum
	Remainder and Majority French Creek Subwatershed (Chester County)	Berks County Conservancy Brandywine Conservancy Green Valleys Association French & Pickering Creeks Conservation Trust
Pickering Creek Subwatershed	Entire Subwatershed	Brandywine Conservancy Green Valleys Association French & Pickering Creeks Conservation Trust
Valley Creek Subwatershed	Entire Subwatershed	Brandywine Conservancy Green Valleys Association Open Land Conservancy
Schuylkill River 3 Subwatershed	Chester County	Brandywine Conservancy Green Valleys Association French & Pickering Creeks Conservation Trust Greater Pottstown Watershed Alliance
Upper Perkiomen Creek Subwatershed	In Berks County	Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum Trout Unlimited - Perkiomen Chapter
	Montgomery County	Berks County Conservancy Montgomery County Lands Trust Trout Unlimited - Perkiomen Chapter
Lower Manatawny Creek Subwatershed	Berks County	Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum Greater Pottstown Watershed Alliance

<i>Area of Schuylkill Watershed</i>	<i>Specific Geographic Area Where Overlap Occurs</i>	<i>Overlapping Groups</i>
Lower Manatawny Creek Subwatershed	Montgomery County	Berks County Conservancy Greater Pottstown Watershed Alliance Montgomery County Lands Trust
Schuylkill River 4 Subwatershed	Berks County	Berks County Conservancy E. PA Coalition for Abandoned Mine Reclamation Kutztown University Environmental Science Forum Greater Pottstown Watershed Alliance
	Chester County	Brandywine Conservancy Green Valleys Association French & Pickering Creeks Conservation Trust Greater Pottstown Watershed Alliance
Large North Central Portion of Watershed	Majority of Berks County	E. PA Coalition for Abandoned Mine Reclamation Berks County Conservancy Kutztown University Environmental Science Forum

* *The watershed-wide organizations engaging in park/preserve management overlap with all of the above groups.*

▪ **Nonprofits Conducting Other Activities**

Besides the specific activities discussed above (education, research, water quality testing, advocacy, etc.), nonprofit organizations engage in other types of activities. Other types of nonprofit activities include: land use planning and consulting; watershed group organization and development; grant writing assistance; training; tours; wildlife monitoring; collaborative partnerships; and citizen action organization for watershed groups.

7.3.2.2 Funding Sources

Besides inquiring into nonprofits' boundaries and missions, the survey researched how nonprofits throughout the watershed are financially supported. As expected, the environmental nonprofit community receives support from very diverse sources. Included among the sources of funding are: membership; foundations; government agencies; fundraising events; university-related funding; endowments; service/contract income; rental income; retail sales income; and corporate sponsorship (see **Table 7.24**).

Table 7.24 Schuylkill River Watershed Nonprofit Organizations' Funding Sources

<i>30 Nonprofit Organizations</i>	<i>Membership</i>	<i>Foundation</i>	<i>Government</i>	<i>Fundraising</i>	<i>University-Related</i>
Number of Organizations	29	24	30	21	5
Percentage	96%	80%	100%	70%	8%
Other/List	Contract Services, Corporate Donations, Investment Income, Endowments, Facilities and Rental Income, Admission Fees, Retail Sales				

Table 7.25 List of Corporations and Foundations Supporting Watershed Organizations, presents a list of funding sources that have supported conservation groups and projects in the watershed. Note that this is not a comprehensive list of all foundations giving to conservation efforts in the watershed.

Table 7.25 List of Corporations and Foundations Supporting Watershed Organizations

The 1957 Charity Trust	Philadelphia Suburban Water Company
Albert Trust	Rhone-Poulenc Rorer
Arcadia Foundation	Ridley Pool
Association of New Jersey Environmental Commissions	Quaker Chemical
Helen D. Groom Beatty Trust	Quaker Chemical Foundation
Bell Atlantic Foundation	Maxwell Strawbridge Charitable Trust
Elaine and Vincent Bell Foundation	Strawbridge Foundation of Pennsylvania
Archie W. & Grace Berry Foundation	Suburban Cable
Blue Mountain Foundation	Teleflex Foundation
Border Books-donations	Union Pacific
Bryn Mawr Trust	United Fund of Collegeville
Burket-Plack Foundation, Inc.	Univest Corporation
Claniel Foundation	Wyomissing Foundation
Colonial Oaks Foundation	
Geraldine R. Dodge Foundation	
Dolfinger-McMahon Foundation	
Green Mountain Energy Resource	
John & Chara Haas Charitable Trust	
Hatfield, Inc.	
John M. Hopwood Charitable Trust	
The Stewart Huston Charitable Trust	
Kaiser Foundation	
T. James Kavanaugh Foundation	
Kenelm Foundation	
Lehigh Valley Community Foundation	
Lilliput Foundation	
George & Miriam Martin Foundation	
Martin Foundation	
The McLean Contributionship	
Merck & Company	
Montgomery County Foundation	
Moyer Packing Company	
Warren V. Musser Foundation	
Oxford Foundation	
PA Outdoor Writers Association	
Partnership for the Delaware Estuary	
Patriot Bank	
PECO Energy Company	
William Penn Foundation	
Perkiomen Creek Watershed Improvement Corporation	
Pew Charitable Trusts	
Philadelphia Community Foundation	

While the Nonprofit Survey revealed information about sources of funding, it did not attempt to examine what percentage of revenues are generated through any one type of funding source, such as foundations and government, which are limited growth sources of income. However, a recent informal funding survey of several nonprofits in the watershed was conducted by Dr. Jon Roush. Dr. Roush, a specialist in strategic planning for the environmental nonprofit sector, was hired by The Conservation Fund to learn about the capacity building needs for the nonprofit sector in the Schuylkill River watershed. Dr. Roush's survey found that the typical nonprofit polled emphasized foundation and government sources of income in their fundraising strategy. The study revealed that foundations contributed over 40% of revenues to Schuylkill nonprofit organizations, as compared to the national average of 15% or less. Individual donations accounted for only 13% of revenues, while the national average for individual philanthropy is 85%. One conclusion is that nonprofits in the watershed rely heavily on private foundations, and therefore need to diversify their funding sources and concentrate on cultivating membership/individual donors in order to grow successfully.

Nonprofits in the Schuylkill River watershed generate revenue from a wide variety of sources. Diversified fundraising should be a goal for every nonprofit to protect against sudden changes in funding. Foundation and government funders are generally considered limited funding sources because these sources may not grow in proportion with an organization's needs and cannot be depended upon for the long-term. Therefore, organizations relying on these sources will be limited in their growth and long-term sustainability. Nonprofits that rely primarily on foundation and government support should develop a realistic fundraising plan that emphasizes other sources, including individual donors and memberships.

7.3.2.3 Nonprofit Areas of Greatest Need

In addition to learning about how watershed nonprofits generate revenue, the survey inquired into what organizations view as the areas of greatest need for the watershed. Responses to this question are discussed below and have been addressed and incorporated into the pertinent sections of *Chapter 4.0 Identification of Major Issues*. As **Table 7.26** demonstrates, the nonprofits interviewed answered this question in two different ways. Some answered by stating the greatest need for their own organization; others answered the question by stating their view of the watershed's greatest needs.

Table 7.26 Categories and Examples of Nonprofit Organizations' Watershed Needs

<i>Category</i>	<i>Example</i>
Funding	<ul style="list-style-type: none"> ▪ Training ▪ Development ▪ Fundraising ▪ Buying land
Education and Outreach	<ul style="list-style-type: none"> ▪ Operational expenses ▪ Increasing staffing ▪ Conducting monitoring programs and other citizen requested programs
Institutional	<ul style="list-style-type: none"> ▪ Operational expenses ▪ Improving computers and other equipment ▪ Increasing staffing ▪ Improving volunteer base

<i>Category</i>	<i>Example</i>
Government and Organizational Coordination	<ul style="list-style-type: none"> ▪ Making municipal planning expertise of NGOs available to municipalities ▪ Reducing lack of coordination and overlap of effort resulting from different regulations and policies at state level ▪ Improving coordination between government organizations and NGOs ▪ Improving coordination among NGOs ▪ Being cognizant of environmental justice issues and lack of representation of minority groups or geographic areas within the watershed ▪ Taking an interdisciplinary approach locally and regionally
Legislative	<ul style="list-style-type: none"> ▪ Marketing the message of responsible growth and natural resource conservation/protection to change the land ethic and improve environmental awareness ▪ Legislating natural resource conservation to improve development patterns and balance future growth
Technical	<ul style="list-style-type: none"> ▪ Improving monitoring programs and quality of data ▪ Coordinated and compatible GIS mapping and training to groups who use it, available on CD-ROM ▪ Information and technology management ▪ Unified information systems to store and correlate information

▪ **Funding**

Funding was listed by many organizations as an area of greatest need. From an internal standpoint, many organizations would like additional funding to support overhead expenses, such as computers, personnel and operating expenses. Other nonprofits desired funding for actual projects, such as land acquisition and water quality monitoring. Some nonprofits thought that a funding system should be institutionalized in the watershed, to help groups obtain funding and to address key watershed needs.

▪ **Education and Outreach**

Many nonprofits surveyed recognized education and outreach as a vital part of watershed management, to raise awareness and stewardship, and thus to improve resources and quality of life. However, many organizations felt constrained by a lack of funding to support the staff needed to respond to citizens who request services or information from them.

▪ **Nonprofit Capacity**

The survey revealed that nonprofit organizations face many challenges with internal operations. Overall, nonprofits spoke to the basic organizational challenges they face, such as: how to develop and manage a board of directors; how to recruit and mobilize volunteers, interns and staff; the need for general management support in accounting, bookkeeping and other day-to day operations; and how to allocate resources to meet public demand. All of this reveals that the nonprofit community as a whole needs help in building capacity to meet their organizational needs and effectively carry out their missions. The Needs Assessment Survey of Schuylkill River watershed groups conducted by Dr. Jon Roush supports the general findings of this survey, that nonprofits should build capacity and attend to basic, organizational needs. Dr. Roush's study revealed that nonprofits need support and professional development in three priority areas: fundraising, strategic planning, and board management or development.

▪ **Government and Organizational Coordination**

Several of the nonprofits surveyed noted their desire for increased coordination between the private and public sectors. Groups addressed the need for more governmental and organizational coordination, and also the need to supply local governments with the tools and resources they need to make well-informed decisions.

▪ **Legislative/Policy Changes**

A few organizations stated that legislation should be developed to institutionalize conservation values: e.g., to balance future growth and economic development while protecting open space and agricultural lands, and to develop special zoning for natural resource conservation.

▪ **Technical Assistance**

Technical assistance was included in many agency responses. Issues ranged from general technical assistance, information and technology management and the need for unified information systems to store and correlate information, to GIS mapping, accessibility and training.

7.4 Public Agency Interviews and Analysis

7.4.1 Background and Procedure

A public agency interview process was included to provide balanced input into the Schuylkill Watershed Conservation Plan. The public agency interviews supplied important information about activities, concerns and visions for the watershed that have been incorporated into the plan's recommendations, and may be used as a planning tool for empowering local organizations to more efficiently focus and coordinate limited resources where they are most urgently needed.

A list of watershed agencies was developed to provide a representative sample of all government levels (federal, state, county, local, municipal and regional agencies) with pertinent public responsibilities throughout the watershed. A full list of public agencies interviewed is in [Public Agency Contact List](#) in the online Reference Documents. Key public officials in the watershed were interviewed to ensure the cooperation of these relevant public agencies, to promote and support coordination with existing natural resource management plans, and to obtain further input into major watershed issues and completed or ongoing projects.

Before interviewing agency representatives, a standard survey was developed by researching other watershed surveys (see the online Reference Document: [Public Agency Survey](#)). Over 90 agencies were selected to participate in the interviews. However, only 64 public agencies responded in the interview process from November 1999 through February 2000. Forty-three interviews were conducted personally and the rest were conducted by mail. The three local nonprofit partners, representative of geographic regions within the watershed, who administered the survey were: the Berks County Conservancy (covering Berks, Lebanon and Lehigh Counties); the Pennsylvania Environmental Council (covering Chester, Delaware, Philadelphia, Bucks and Montgomery Counties); and the Schuylkill River Greenways Association (covering Schuylkill and Carbon Counties). As a majority of the responding agencies represented the northern sections of the watershed, issues pertinent to those regions of the watershed may have received more attention in the analysis of agency responses. Resource Dynamics, Inc. helped to organize and coordinate the interviewing effort. The following discussion summarizes the responses to the Public Agency Survey.

7.4.2 Results and Discussion

7.4.2.1 Agency Activities and Responsibilities/Objectives

A variety of agencies were interviewed, reflecting many different types of regulatory and non-regulatory responsibilities. Approximately 40% of the agencies interviewed have some regulatory responsibilities. These regulatory responsibilities include: sediment and erosion control; water pollution discharge permits; safe drinking water protection; zoning and local stormwater requirements. Non-regulatory agencies promote and assist with conservation and restoration of the outstanding cultural, recreational and natural resources within the Schuylkill River watershed; develop plans to manage growth, redevelopment and transportation; and offer technical assistance, conducting studies and providing financial assistance, education, and training. Many agencies also work to facilitate partnerships with communities and municipalities for environmental, conservation and natural resource projects. In summary, the public sector reports collectively that they address all areas of watershed concern. See **Table 7.27** for a list of the agencies interviewed, their general responsibilities and resources offered to outside organizations.

Table 7.27 Watershed Agencies, Responsibilities and Resources Offered to Outside Organizations

<i>Level of Government</i>	<i>Agency</i>	<i>Purpose and Responsibility</i>	<i>Resources Offered</i>
Federal	Office of Surface Mining	Regulate coal mining impacts; aid in abandoned mine issues	Financial, educational, technical
Federal	National Park Service	Conservation of natural, recreational, and cultural resources	Financial, educational, technical, communications, political access and process
Federal	US Army Corps of Engineers	Water resources planning, development, streambank and habitat restoration; regulatory authority with PA DEP for construction within U.S. waters	Technical, planning, engineering and construction
Federal	USDA - Forest Service	Technical and financial assistance in forestry related projects	Financial, educational, technical, training, communications, political access and process
Federal	USDA - Natural Resource Conservation Service	Assistance for soil and water conservation	Financial, educational, technical, training, communications, political access and process
Federal	US Fish and Wildlife Service	Wetland violations; highways; 404 permit review	Financial, technical
State	PA DCNR - Bureau of Forestry	Aid landowners in the care of their forests; improve riparian forest buffers	Financial, educational, technical, communications
State	PA DCNR - Bureau of Parks and Recreation	Planning leading to River Conservation Plans; River Conservation Program, Keystone Grant Program	Financial, educational, technical, training, communications, political access and process
State	PA DCNR - Bureau of Topographical and Geologic Survey	Describe topography and bedrock geology; collect water well records	Technical

<i>Level of Government</i>	<i>Agency</i>	<i>Purpose and Responsibility</i>	<i>Resources Offered</i>
State	PA DCNR - Conservation & Natural Resources Advisory Council	Evaluating DCNR grants program; involving citizens and local governments in DCNR decisions	Financial, educational, technical, training, communications, political access and process, advocacy
State	PA Fish & Boat Commission	Enforcement of boating, fishing and water quality issues	Educational, technical, training, communications
State	PA DEP - District Mining Operations	Regulate all mining activities; acid mine drainage remediation	Financial, educational, technical
State	PA DEP - Bureau of Watershed Conservation	Coordinate 319 Clean Water Act Grants Programs	Financial, educational, training
State	PA DEP - Bureau of Mining and Reclamation	Permitting and compliance for mineral extraction; watershed restoration projects	Financial, educational, technical, political access and process
State	PA DEP - Water Management Program	Administer 537 Sewage Facilities Program	Financial, educational, technical
State	PA DEP - Bureau of Abandoned Mine Reclamation	Reclamation of abandoned mine sites; manage Schuylkill River Project; bond forfeiture actions	Financial, technical, limited construction abilities
State	PA DEP - Regional Watershed Coordinator	Regulatory agency – elimination of sewage discharges and AMD	Financial, educational, technical, training, communications
State	PA Department of Transportation (DOT)	Manage transportation design and construction projects	Financial, educational, technical
State	PA Game Commission	Wildlife habitat improvement	Educational, technical
State	Wild Resource Conservation Fund	Inventory native wild plants and non-game wildlife	Financial, other (as approved by other state agencies)
Regional	Delaware River Basin Commission (DRBC)	Planning and permitting water withdrawals and wastewater discharge	Technical, political access and process
Regional	Delaware Valley Regional Planning Commission (DVRPC)	Develop land use and open space plans for region; various other environmental, transportation, and land use studies	Educational, technical, training
Regional	Fairmount Park Commission	Maintenance of streams, dams, landscaped areas, buildings; regulate park use	Educational, technical, training
Regional	Southeastern Pennsylvania Transportation Authority (SEPTA)	Transportation	None
County	Berks County Conservation District	Conservation of natural resources, especially those relating to water quality	Educational, technical, training, communications, political access and process
County	Berks County Planning Commission	Transportation planning; stormwater management; review of subdivision and land development	Financial, technical, training, communications
County	Bucks County Planning Department	Assistance to municipalities with open space planning, ordinance development, and site designs	Educational, technical, training
County	Bucks County Planning Commission	Identify and preserve cultural and natural areas, county open space	Educational, training, communications

<i>Level of Government</i>	<i>Agency</i>	<i>Purpose and Responsibility</i>	<i>Resources Offered</i>
County	Carbon County	Advise on community development issues; regulatory activities – reviews of projects involving zoning and subdivision regulations	Communications
County	Chester County Conservation District	Sustainable use of natural resources; work with watershed associations; regulatory activities – erosion and sediment control, review NPDES permits	Financial, educational, technical, communications
County	Chester County Parks & Recreation Department	Provide recreation activities; promote greenways and river access; construct trails; enhance biodiversity	Financial, technical
County	Chester County Planning Department	Sub-development reviews; sewage facility reviews; implementing county comprehensive plan	Financial, technical, training
County	Chester County Water Resources Authority	Encourage sound watershed management	Educational, technical
County	Eastern Schuylkill Recreation Commission	Trail projects; AMD	Communications, political access and process
County	Lebanon County Commissioners	Watershed preservation; recycling, pollution prevention; greenways	Educational, political access and process
County	Lebanon County Conservation District	Soil and water conservation; farmland preservation; erosion and sediment control; nutrient management	Educational, technical, communications, political access and process
County	Lehigh Valley Planning Commission	Open space and agricultural preservation	Educational, technical
County	Montgomery County Association of Township Officials	Sharing ideas on environmental issues and projects with member municipalities	Educational, communications
County	Montgomery County Planning Commission	Plans to address growth and redevelopment; review development plans; perform studies to protect natural resources and improve transportation	Financial, educational, technical, training, political access and process
County	Penn State Cooperative Extension	Research information for agriculture	Educational, technical, training, communications
County	Philadelphia Planning Commission	Approval of site plans and erosion and sediment controls; review of compliance for stormwater, contamination, and floodplain regulations	Educational, technical, training, communications, political access and process
County	Philadelphia Urban Resources Program	Vacant land restoration and improvements	Financial, educational, technical
County	Philadelphia Water Department	Drinking water source protection; stormwater permits; wet weather water quality/quantity concerns	Educational, technical, training, communications, political access and process
County	Schuylkill County Association of Township Supervisors	Advocate for local townships; clean water; healthy environment	Communications, political access and process

<i>Level of Government</i>	<i>Agency</i>	<i>Purpose and Responsibility</i>	<i>Resources Offered</i>
County	Schuylkill Conservation District	Watershed protection; clean streams; regulatory activities - NPDES and erosion and sedimentation plan reviews	Financial, educational, technical, training, communications, political access and process
County	Schuylkill County Cooperative Extension Office	Education for persons engaged in agricultural enterprises	Educational, technical, training
County	Schuylkill County Planning Commission	Planning; transportation planning; zoning and subdivision permits	Financial, educational, technical, political access and process
County	Schuylkill County's Vision	County strategic planning process	Network facilitation
County	Schuylkill County Municipal Authority	Water and wastewater authority	Technical
County	Schuylkill County - Real Estate Development and Office of Solid Waste and Resource Management	Manage coal lands, bridges, county roads, flood control dams, solid waste disposal, recycling	Financial, educational, technical, political access and process
Municipal	Borough of Port Clinton	Municipal authority for Port Clinton	None
Municipal	City of Pottsville - Recreation Commission	Recreation programming	Facilitation of volunteers
Municipal	Schuylkill Township	Governing; road maintenance	Political access and process
Municipal	Schuylkill Haven Borough	Operate electric, water, and sewer for borough and nearby areas	Technical, communications, political access and process
Municipal	Towamencin Township	Install best management practices; regulatory activities - zoning ordinances	Demonstration projects to serve as educational model
Nonprofit*	E. PA Coalition for Abandoned Mine Reclamation	Works with watershed groups and others interested in mine reclamation	Financial, educational, technical, training, communications, political access and process, monitoring
Nonprofit*	Schuylkill River Greenway Association	Schuylkill River Greenway development; manage Schuylkill River Heritage Initiatives (a state program)	Financial, educational, technical, communications, political access and process, problem solving

*Nonprofits invested with some regulatory responsibilities.

In order to understand what types of activities predominate public work, part of the survey gathered information on activities in which public agencies have focused and invested resources. These activities are listed by category in **Tables 7.28** and **7.29** for current projects and completed projects, respectively.

Table 7.28 Categories of Current Public Agency Activities

<i>Agency Activity</i>	<i>Percent of Agencies Participating</i>
Projects (physical, restoration)	44%
Planning Tools/Studies/Assessments	28%
Education and Outreach	10%
Acquisition/Open Space Preservation	7%
Inventories/Ecological Monitoring	6%
Partnerships/Coalition-building/Special Designations	3%

Table 7.29 Categories of Completed Public Agency Activities

<i>Public Agency Projects</i>	<i>Percent of Agencies Participating</i>
Projects (physical, restoration)	40%
Planning Tools/Studies/Assessments	23%
Partnerships/Coalition-building/Special Designations	11%
Education and Outreach	11%
Inventories/Ecological Monitoring	2%
Acquisition/Open Space Preservation	2%

Tables 7.30a and 7.30b list specific examples of the types of projects which public agencies are working on or have completed. A more detailed list of public agency projects is recorded in the online [Reference Table 7A: Detailed List of Public Agency Projects](#). The level of involvement in each category of public agency project is summarized and discussed in the sections following the tables.

Table 7.30a Specific Ongoing Public Agency Projects

ONGOING PROJECTS					
<i>Physical Projects</i>	<i>Planning</i>	<i>Education</i>	<i>Acquisitions, Open Space</i>	<i>Inventories</i>	<i>Partnerships</i>
Streambank fencing	Preliminary remedial assessment plans	Forest stewardship program	Habitat acquisition assistance and stream bank preservation	Groundwater level monitoring and mapping	Working to establish the Schuylkill River National Heritage Area
Establishing warm season grasses and non-game wildlife	River Conservation Plans	Adult and youth education	Acquisition of agricultural easements by Lehigh County	Digital geologic maps of Pennsylvania	Partnerships to manage Schuylkill River Water Trail
Acid mine drainage treatments	Watershed action strategies	Commercial horticulture	200,000 acres of farmland preservation	County inventories of wild flowers and non-game wildlife	Philadelphia Urban Resources Partnership

ONGOING PROJECTS					
<i>Physical Projects</i>	<i>Planning</i>	<i>Education</i>	<i>Acquisitions, Open Space</i>	<i>Inventories</i>	<i>Partnerships</i>
Constructed wetlands	Regional watershed plans	Land conservation practices	Acquisition and easements of adjacent properties as part of the Natural Lands Restoration	Stream flow monitoring with USGS	Vision Program Partnership: 70 of 73 municipalities have a MOU regarding the Landscapes Plan that makes them eligible for funds and technical assistance
Riparian forest buffers	Open space land use plans	Sustainable agriculture, open space education program	Roxborough open space preservation (evaluating parcels for acquisition or protection)	Precipitation monitoring (volunteer based)	
Sewerage discharge controls	Nutrient management plans	Crop and stock management practices	County open space acquisition through planning and parks recreation departments	Stream coordination monitoring (physical biological and chemical)	
Expansion of water treatment filtration plants	Watershed assessments	Rural and urban living projects and activities		County-wide brownfields inventory	
Fish ladder projects					

Table 7.30b Specific Completed Public Agency Projects

COMPLETED PROJECTS					
<i>Physical Projects</i>	<i>Planning</i>	<i>Education</i>	<i>Acquisitions, Open Space</i>	<i>Inventories</i>	<i>Partnerships</i>
AMD related restoration and remediation	Schuylkill Heritage Plan	Earth Yes— environmental education for youth	Conservation Reserve Program – 500 acres around the Green Lane Reservoir	Inventory of natural and cultural resources	Penn Ridge Greenway on the East Branch of the Perkiomen
Diversion wells and constructed wetlands	Effects of Urbanization on Eastern Chester County	Teaching urban youth about natural resources	Acquisition of the Thun and Bartram rail/trail project properties	Agricultural inventory in the French-Pickering Creek	Garnering involvement and support from Trout Unlimited
Hazardous waste site clean ups	An airport logging plan	Stormwater management BMPs for urban areas			Work with Coldwater Tributaries Action Council

COMPLETED PROJECTS					
<i>Physical Projects</i>	<i>Planning</i>	<i>Education</i>	<i>Acquisitions, Open Space</i>	<i>Inventories</i>	<i>Partnerships</i>
Improved access, lighting and signage at local parks	County Landscape Plan and other municipal level OSPER plans promoting open space	Teacher training on AMD issues			Ongoing work with farmers on agricultural practices
Environmental and historic restoration projects in Manayunk	Information about creating livable communities	“Preserving Our Places” a historic preservation manual			Hosting district meetings
Improving a failing sewer system	County natural resources plan including soils, farmland, significant natural features and model ordinances	Five public programs to promote better care of forest resources and to provide educational opportunities on public forest resource issues			Reminding DCNR of the need to involve citizens and local governing officials in decisions that vitally affect their interests
Riparian restoration projects	A land use policy report, “New Regionalism”	Managing the First Annual River Sojourn			

▪ **Projects**

44% of agencies have completed projects and 40% are currently engaged in on-the-ground, physical improvement projects in the watershed. These projects cover a variety of activities such as: streambank fencing; establishing warm season grasses and non-game wildlife; acid mine drainage treatments; constructed wetlands; improvements to riparian forest buffers; sewage discharge controls and expansion of water treatment filtration plants; headwaters dredging; park, nature preserve, trail and bike path creation and enhancements; and bridge replacement and rehabilitation.

▪ **Planning Tools, Studies and Assessments**

Agencies have completed an impressive list of planning tools, studies and assessments addressing issues throughout the watershed. 28% of agencies currently have planning projects, with 23% having completed planning projects. Some of these efforts include: preliminary remedial assessment plans; River Conservation Plans (creating a management plan with recommendations throughout a watershed); watershed action strategies (identifying pollution sources and potential remediation actions); regional watershed plans; open space/land use plans; countywide comprehensive plans; stormwater plans; conservation planning on private and agricultural land; and nutrient management plans.

▪ **Education and Outreach (Fostering Stewardship)**

Public agencies cover a broad spectrum of education and outreach activities in the watershed. Although comprising only a small percentage of the overall projects in both ongoing (10%) and completed (11%) categories, education and outreach efforts are targeted at a wide range of audiences. Educational projects include: a forest stewardship program; adult and youth education on commercial horticulture, land conservation practices, sustainable agriculture, integrated pest management, agronomy and livestock, crop and stock management practices; family living including childcare, nutrition, and food safety; 4-H efforts including rural and urban living projects and activities; and leadership and youth education projects conducted in cooperation with school systems. Other educational programs focus on stormwater management practices, teacher training on acid mine drainage issues, and a conservation leadership school. The Natural Lands Restoration and Environmental Education Program (NLREEP) by the Fairmount Park Commission provides a variety of activities including: development of a master restoration plan and implementation of high priority projects; a trail master plan; expansion of environmental education facilities and programs; and expansion of volunteer efforts.

Outreach focuses on coalition-building activities, such as: regular meetings of special committees and township supervisors; planning stewardship programs for county-owned properties; working with communities and nonprofit organizations to build a sense of regional identity for the Schuylkill River watershed; and managing the Schuylkill River Sojourn.

▪ **Acquisition/Open Space Preservation**

Although only a small percentage of public agency activity is focused on land acquisition and/or open space preservation (7% for ongoing and 2% for completed projects), the public sector is facilitating land preservation. Specific projects include: habitat acquisition assistance and streambank preservation work with the Schuylkill County Conservancy and Wildlands Conservancy; acquisition of agricultural easements by Lehigh County; 200,000 acres of farmland preservation; acquisition and easement of additional adjacent properties as part of the NLREEP; Roxborough open space preservation (evaluating parcels for acquisition or protection and county open space acquisition through planning and parks and recreation departments); the Conservation Reserve Program (500 acres around the Green Lane Reservoir); and the acquisition of the Thun and Bartram rail/trail project properties.

▪ **Inventories/Ecological Monitoring**

A relatively small number of public agencies interviewed are conducting (6%) or have conducted (2%) a number of inventory projects in the watershed. These projects include: GIS inventories for conservation and natural resources protection; digital geologic maps of Pennsylvania; county inventories of wild flowers and non-game wildlife; a variety of data gathering and research projects, stream flow monitoring with USGS, groundwater level monitoring and mapping, groundwater quality monitoring, stream condition monitoring (physical biological and chemical), precipitation monitoring (volunteer based); and a countywide brownfields inventory. The list also includes an inventory of natural and cultural resources and an agricultural inventory in the French and Pickering Creek subwatersheds.

▪ **Partnerships/Coalition-building/Special Designations**

Although one of the most important categories for building watershed stewardship, agencies engaging in these activities were fewer than expected. Only 3% of agencies surveyed currently are involved in partnerships or coalition-building, although 11% have completed partnership projects. Special designations refer to a very specific activity and were grouped in this category due to the small percentage of these types of projects.

The types of partnerships and coalition-building projects ranged from working to establish the Schuylkill River National Heritage Area to promoting the Vision Program Partnership, an MOU (memorandum of understanding) among 70 municipalities regarding a Landscapes Plan that makes them eligible for funds and technical assistance. Other examples include working with the Eastern Schuylkill Recreation Commission, the Schuylkill Headwaters Association and the Pennsylvania Fish and Boat Commission to develop and manage the Schuylkill River Water Trail from the headwaters to the confluence with the Delaware. There were a few responses that focused on urban issues. These involved the Philadelphia Urban Resources Partnership, whose goal is to create a network and forum for agencies and nonprofits interested in urban ecological restoration. Completed projects include: the Penn Ridge Greenway on the East Branch of the Perkiomen where seven to eight municipalities worked on common issues relating to the greenway and trails; garnering involvement and support from Trout Unlimited; work with Coldwater Tributaries Action Council (founded by the Conservancy and Trout Unlimited in 1996); and ongoing work with farmers on agricultural practices.

The Public Agency Survey responses suggest that there are opportunities for increased cooperation among the nonprofit and public sectors. Based on the low percentage of projects, public agencies may wish to partner with nonprofits to leverage activity for: education and outreach; open space acquisition; research and resource inventories; and partnerships/coalition-building. These activities contribute in a number of ways to sustainable watershed management, as highlighted below.

- Education and outreach activities increase public awareness and involvement in watershed conservation. Whether through recreation, volunteer activities, school field trips, or formal training opportunities, public agencies can ensure that local communities are informed and committed to preserving their land and water legacy today and for the future.
- Land acquisition and open space protection is increasingly recognized as a critical component of watershed preservation. Environmental issues like non-point source pollution, stream sedimentation, wildlife health and habitat quality often result from inappropriate adjacent land uses. By increasing open space and protected lands in the watershed through direct acquisition, conservation easements or other land protection tools, public agencies and their partners can improve water and habitat quality, and may provide new opportunities for public access, recreation and education.
- Good environmental management is grounded in good scientific research. While public agencies and nonprofits have amassed important information about the Schuylkill River watershed, additional research and monitoring are required to understand the health and functioning of this aquatic ecosystem. In addition to basic biological inventories and chemical studies, it is essential that agencies and local organizations work together to develop a watershed-wide research and monitoring program.
- Overlap and gaps in activities and services provided by public agencies and nonprofits could be addressed with partnerships and coalition-building. The larger geographic area and importance of tributaries implicit in watershed management demands a higher level of coordination and cooperation than for traditional river conservation planning. For example, an effective watershed monitoring design requires thorough sampling across the tributaries and rivers of the watershed. Public agencies may fill a vital gap by facilitating coordination among nonprofits and local groups through innovative partnerships and coalitions.

7.4.2.2 General Threats, Solutions and Agency Needs

Besides gathering information concerning public agency activities in the watershed, the survey identified major threats perceived by agencies in the watershed, approaches to addressing these threats, and internal agency needs to better meet conservation issues. These answers provided additional input on major issues in the watershed aside from those elicited at the public meetings. Many of these responses have been incorporated into the recommendations, and into *Chapter 4.0 Identification of Major Watershed Issues*.

When asked to list the primary threat to natural resources in the watershed, the most frequent answers were: acid mine drainage; non-point source pollution from both rural, urban and urbanizing areas; water pollution from improper sewage treatment; and sprawl/growth/development issues (see **Table 7.31**). The “other” category that accounts for 34% of the responses were a very small percentage of the overall responses. Answers that fell into the “other” category ranged from over-population of white tailed deer, to erosion and sediment loading from agricultural land and apathy of public attitude. Because 69% of the responding agencies represented the northern sections of the watershed (primarily Berks and Schuylkill Counties), this may account for the importance assigned to acid mine drainage and related mining issues along with sewage-related issues.

Table 7.31 Primary Threats to Resources Within Public Agency Jurisdiction

<i>Perceived Threat to Resources</i>	<i>Percent of Agency Responses</i>
Acid Mine Drainage and Related Mining Issues	27%
Nonpoint Source Pollution/General Pollution	18%
Sewage Issues	12%
Sprawl/Growth/Development	12%
Other (issues receiving only one or two responses)	34%

Besides identifying primary threats to watershed resources, agencies were asked to provide innovative approaches and solutions (both regulatory and non-regulatory) to solve these threats. It was clear from the responses that the agencies thought in terms of identifiable, physical implementation projects rather than in terms of general solutions (see **Table 7.32**). Among the proposed solutions, project implementation (both acid mine drainage and others) received the highest response, followed by comprehensive planning and partnerships/team approaches to addressing the threats. The 20% of the responses attributed to the “other projects” category ran the gamut from deer management and water quality projects by nonprofits, to water quality monitoring, streambank fencing and even housing rehabilitation programs. The fact that funding, education, enforcement and acquisition each received less than 10% of the responses could imply that either agencies are not geared toward working in these areas, or that they do not feel that these approaches are as innovative or effective as physical implementation projects.

Table 7.32 Suggested Innovative Approaches and Solutions/Projects to Solve Perceived Threats

<i>Types of Projects</i>	<i>Percent of Agency Responses</i>
Acid Mine Drainage and Related Mining Issues	20%
Other	20%

<i>Innovative Solutions</i>	<i>Percent of Agency Responses</i>
Comprehensive Planning	11%
Team Approach/Partnerships	11%
Financial	8%
Educational	8%
Enforcement	5%
Acquisition	5%

The survey revealed that 48% of the public agencies believe they need increased financial support to address the identified threats in the watershed (see **Table 7.33**). Regulatory and/or policy changes were noted as additional needs to solve watershed threats. These include passage of Growing Greener legislation, sprawl legislation, and enforcement legislation; all fairly general responses. Other responses that accounted for less than 15% of the answers included: expansion of the support base (i.e., watershed associations and volunteers), increases in staff/personnel and improved planning.

Table 7.33 Additional Resources Needed to Address Threats

<i>Additional Resources Needed</i>	<i>Percent of Agency Responses</i>
Financial	48%
Regulatory/Policy Changes	25%
Expansion of Support Base/Watershed: Associations/Volunteers	12%
Personnel Increases	9%
Improved Planning Process	2%

When asked what groups are best positioned to solve watershed problems, agencies overwhelmingly agreed by 81% that watershed partnerships, made up of a combination of the public, private and nonprofit sectors working together on projects, are the most successful method of addressing watershed threats. The remaining 19% of the responses varied based on what the agency interviewee considered major threats and, in some cases, one specific public agency was suggested as most appropriate for dealing with this threat. Agencies and nonprofits specifically mentioned included: NRCS; Farm Service Agency; county conservation districts; PA Game Commission; PA Fish Commission; PA DEP; Chambers of Commerce; economic development agencies; E. PA Coalition for Abandoned Mine Reclamation; Penn Vest; Schuylkill Headwaters; conservancies; schools; museum commissions; USGS, and the Borough Day Committees.

Again, while a strong majority of the agencies interviewed stated that a partnership of agencies and watershed organizations are best suited to solve problems, only 3% of agencies are actively involved in the partnership approach. It can be concluded that there is ample opportunity for increasing the number of partnerships as agencies recognize the efficacy of partnerships but are not participating in them currently.

7.4.2.3 Opportunities for Agency Partnerships

While the above section addresses the threats and solutions suggested by the public sector, this section discusses activities around which partnerships may be established.

In general, public agencies offer many different types of opportunities in which other organizations can cooperate. When asked about the best opportunities for other agencies or nonprofit organizations to work

cooperatively on projects, 19% of the agencies cited planning and program development (see **Table 7.34**). Examples of planning and program development include promoting the forest stewardship program, involving the county commission with projects, and developing and promoting the Partners for Fish and Wildlife. Another example is the Rivers, Trails and Conservation Assistance Program, a public outreach program of the National Park Service that assists local communities, state and local governments and other federal agencies in planning, design and organizational development related to river conservation, trail and greenway development and other similar projects that enhance the environment. Other agencies noted that they can provide assistance with funding and submission of grant applications; some of these agencies include the PA Game Commission, PA DEP and Carbon County Office of Planning and Development. Suggestions for “hands-on” support and acid mine drainage projects included coordinating acid mine drainage projects that involved several organizations and funding sources, streambank fencing, creation of wetlands and stormwater management. Significantly, 5% or less of the agencies stated that they had opportunities for building alliances, education, technical support and design.

Table 7.34 Opportunities for Organizations to Work Cooperatively with Public Agencies

<i>Opportunity for Cooperative Activity</i>	<i>Percent of Agency Responses</i>
Planning/Program Development	19%
Providing Assistance with Funding/Submission of Applications	11%
Projects/Hands-on Support	11%
AMD Project Support	11%
Watershed Association Projects and Regional Organizations	8%
Alliance Building	5%
Education	5%
Technical Support	5%
Design	3%

In the survey, the public agencies recognized the values of working cooperatively. Some of the benefits they highlighted include the value of working together to learn from one another’s experiences, identifying problems, and working together to solve them. Elements of success also were noted. These include working toward a common goal, creating “buy-in” and commitment, leveraged funding, and demonstrating citizen support through nonprofit involvement and increased public awareness.

Public agencies surveyed offer many resources and programs to help other public agencies and nonprofit organizations. Specifically, many agencies offer educational support, technical assistance, financial grants, communication/public relations support and access to the political process. Other available resources include comprehensive planning, engineering and construction, grant writing assistance and facilitating volunteers (see **Table 7.35**). Additionally, *Table 7.27 Watershed Agencies, Responsibilities and Resources Offered to Outside Organizations* above is a reference on specific types of resources offered by these agencies.

Table 7.35 Agency Resources Available to Other Public Agencies or Nonprofit Organizations

<i>Agency Resources Available to Other Groups</i>	<i>Percent of Agency Responses</i>
Financial	49%
Educational	60%
Technical	50%
Training	19%
Communication/Public Relations	39%
Political Access/Process	44%
Other	14%

Resources listed under the “other” category included:

- Comprehensive planning, engineering and construction;
- Demonstration projects on public land that can serve as model for education;
- Grant writing assistance;
- Advocacy for citizen interests;
- Facilitate volunteers; and
- Some limited construction capabilities.

On the other hand, when asked what agencies require in order to be more effective in carrying out their responsibilities in the watershed, the survey revealed the public sectors’ internal needs. Answers showed that public agencies chose general funding, technical assistance and regulatory modifications as their top three priorities (see **Table 7.36**). Other areas identified for capacity building were increased support through watershed associations, volunteer cultivation, agency staffing, better intra-agency communication and improved public relations. Other noted needs included inter-agency liaison, agency funding, and mechanisms for informing landowners and others of available information and resources.

Table 7.36 Internal Agency Needs for Increased Effectiveness in Achieving Mission

<i>Internal Agency Needs</i>	<i>Percent of Agency Responses</i>
Government grants/general funding	21%
Technical assistance	15%
Regulatory modifications	14%
Better communication with other agencies	11%
Other	11%
Public relations	6%

As increased general funding was a priority need for agency effectiveness, the survey inquired into what funding methods agencies have pursued for watershed protection efforts. Government grants and cost share programs make-up more than half of the funding methods pursued by public agencies for watershed protection efforts, followed by the leverage provided through partnerships or cooperative efforts. Foundation support, special taxes, general funds, membership, corporate, concessions and sales and bond initiatives individually comprise a very small percentage of the methods pursued.

7.4.2.4 Measures of Success

Developing standard measures of success for specific types of projects is important. These measures benchmark improvements to watershed resources in order to better target priority projects and financial resources. The 21st Century Environment Commission recognized the importance of indicators in its recent 1998 report. In 1999, PA DEP issued its first statewide indicators report, entitled “State of the Environment.”

Public agencies were asked to suggest measures of success that would demonstrate progress in dealing with watershed issues. Their answers weighed heavily in favor of data-supported implementation projects (i.e., increase in total number of acres preserved, measurable improvements in water quality, etc.). The second most numerous responses highlighted specific programs and organizational improvement. Education and financial measurements received a minor response (see **Tables 7.37** and **7.38**).

Table 7.37 Suggested Types of Measures of Success to Demonstrate Progress

<i>Types of Measures of Success</i>	<i>Percent of Agency Responses</i>
Physical improvements, restoration (data supported)	59%
Programmatic/organizational	35%
Educational	3%
Financial	1%

Table 7.38 Suggested Specific Measures of Success

<i>Type</i>	<i>Suggested Measures of Success</i>
Physical	<ul style="list-style-type: none"> ▪ Miles of streamside forests developed, miles of stream banks fenced ▪ Number of acres returned to native grasses ▪ Numbers of acres conserved, restored, and protected ▪ Number of wildcat sewers and AMD discharges eliminated ▪ Abundance of aquatic life ▪ Number of stream miles open to migratory fish
Programmatic/ Organizational	<ul style="list-style-type: none"> ▪ Number of streams removed from 303(d) impaired waters list ▪ Number of new watershed organizations, number of sustainable watershed organizations ▪ Amount of increase in water sampling points for AMD areas ▪ Number of municipalities with stormwater management plans in place
Educational	<ul style="list-style-type: none"> ▪ Visitation at education sites
Financial	<ul style="list-style-type: none"> ▪ Amount of increased funds for reclamation

Many public agency representatives responded enthusiastically to the subject of indicators/measurements of success. In general, the agencies interviewed understood the value and necessity of measuring progress. However, based on the responses, it was clear that many of these representatives had not thought about the subject before and that this issue had not been incorporated into the public sectors' general method of operation.

7.4.2.5 Most Important Issues Identified for Plan Inclusion

A major goal of the survey was to identify important watershed issues that should be addressed by the plan. Agencies were asked to rank 19 categories of issues in order of importance. Agencies considered the top watershed issues to be land use planning, containing urban/suburban sprawl and revitalizing urban centers, watershed based planning and habitat protection and enhancement (**Table 7.39**).

Table 7.39 Public Agency Ranking of the Most Important Issues in the Watershed

<i>Category of Watershed Issue</i>	<i>Ranking</i>
Land use planning	1
Containing urban and suburban sprawl/revitalizing urban centers	2
Watershed based planning	3
Habitat protection and enhancement	3
Greenways implementation/open space preservation/park expansion and recreation/public access	4

<i>Category of Watershed Issue</i>	<i>Ranking</i>
Water quantity/stormwater and flooding	4
Inter-governmental cooperation/communication	4
Wetlands loss	5
Acid mine drainage	6
Current and ongoing industrial impacts/brownfields/superfund sites	6
Water conservation education/awareness	6
Government funding	7
Water treatment/sewage treatment/septic systems/sewage regulations	8
Farmland protection	9
Farm waste management	9
Farming incentives	9
Cultural resources protection	10
Economic development	11
Designated mineral extraction areas	11

The table echoes the overall need for comprehensive planning and cooperation to address water and land use planning issues. Many of the more specific topics listed here, such as sprawl, greenways and open space preservation, mine drainage, wetlands loss, etc., would be addressed best through a proactive watershed planning effort that solicited input from various stakeholders and focused on developing a long-term landscape design and management plan to preserve cultural, ecological and economic resources.

7.5 Detailed Recommendations from the Institutional Assessment

This section presents detailed recommendations for building institutional capacity in the Schuylkill River watershed. Each recommendation is listed in a table by its code, the name of the recommendation, a representative list of appropriate groups/agencies that might implement or guide the implementation of each recommendation, the key institutional/organizational issues addressed, and the section(s) in this chapter to which each recommendation corresponds. Each table is followed by a detailed description of the recommendation.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.1	Develop Quantitative Indicators/Measures of Success	Key nonprofits and public agencies in the watershed	Improve coordination Plan implementation Resource management Strategic conservation	7.4.2.4

Description

Although most respondents to the Public Agency Survey had not previously considered developing measures of success to demonstrate progress in meeting conservation goals, this issue received strong support from agency staff. We recommend that public agencies and nonprofits in the watershed work together to establish common, quantitative indicators or measures of success to benchmark the effectiveness of projects and management efforts. In order to guide the efficient use of resources, successes and failures need to be documented using indicators to close the feedback loop – i.e., to benchmark the effectiveness and impact of collective watershed-wide efforts and individual efforts. These indicators should be integrated into programs and projects as a general method of operation.

Indicators should be representative of the status of a broad spectrum of resources. Measures of success should be used for water quality, landscape and institutional goals; e.g., include standards and bio-indicators of water quality, measures of landscape stability and conservation progress, and measures for institutional cooperation, financial goals and educational outreach. Indicators can be developed by: (1) identifying the resource to be measured; (2) selecting an appropriate indicator to measure that resource; and (3) determining whether sufficient information is available to support the use of that indicator.

Many nonprofits and public agencies in the watershed could participate in determining appropriate quantitative indicators. Measures of success should be developed collaboratively, perhaps through regular watershed forums (see Recommendations **R7.2**, **R7.7** and **R7.20** below). A current project of 25 diverse nonprofits facilitated by The Conservation Fund is developing some indicators for the Schuylkill River watershed. Further information on indicators can be obtained from EPA Region 3. Other model indicator reports include publications by the Chesapeake Bay Foundation, the Sierra Nevada Business Council, the Delaware Estuary Program, and the Brandywine Valley Association.

See **Tables 7.37** and **7.38** for indicators identified by the public agencies surveyed in this study.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.2	Watershed Network	Watershed stakeholders, including private sector, citizens, nonprofits and public agencies at local and regional scale	Improve coordination Build capacity Plan implementation Strategic conservation	General

Description

The need for coordination between watershed stakeholders was heard through the public meetings, the Public Agency Survey, and the Nonprofit Survey. The most effective way to establish coordination among watershed stakeholders is to institutionalize an organizational framework in the watershed – i.e., a watershed network. The purpose of a watershed network would include the following.

- (1) Provide a forum to exchange information and facilitate communication among representatives from local, subwatershed, regional, state, and federal interests.
- (2) Act as a “think tank” to cooperatively determine general priorities in the watershed that need to be addressed on a local level, how to efficiently meet designated priorities through cooperative projects and local action, and to maintain the ongoing implementation of the Schuylkill Watershed Conservation Plan.
- (3) Work closely with a funding network to obtain funding for priority projects (see Recommendation **R7.3** below).
- (4) Gain increased legislative attention for watershed resources and groups.
- (5) Increase funding to watershed projects from outside sources by working on a large-scale, cooperative basis.
- (6) Raise public awareness of watershed resources.

A watershed network will be most effective if a diversity of stakeholders are involved. Stakeholders should include private sector businesses, nonprofits, and all levels of government. Leadership and structure of the watershed network should be discussed openly among watershed stakeholders for a democratic process and maximum “buy in” from potential participants. The following sections illustrate several different case studies of potential models for a watershed framework. The case studies presented here are intended to provide models for possible institutionalization of a watershed framework in the Schuylkill River watershed. What structure is appropriate for this watershed remains to be determined by stakeholder groups.

Watershed Network Case Studies

The concept of a watershed network, council, coalition or alliance is relatively new. Nevertheless, a few prominent examples reveal a variety of internal organization and purposes. In fact, the purpose and mission of the network greatly influences the structure of the organization and the constituency that it serves. Though most of these alliances share the common objective of bringing diverse interests together, each does so in slightly different ways and with distinct goals. The following are case studies of five watershed alliances that may serve as models for a proposed Schuykill River Watershed Network.

Case Study 1: Androscoggin Watershed Council

The Androscoggin Watershed Council is a collaborative effort of diverse interests in the Androscoggin River watershed of New Hampshire and Maine. It is coordinated by the Appalachian Mountain Club and consists of approximately 50 members representing industry, nonprofit organizations, individuals, and municipal, state and federal governments. The primary goal of the Council is to bring the diverse interests within the watershed together under the same objective of publicizing and promoting the Androscoggin River as a resource. This is a goal that serves multiple interests because the river's reputation has suffered in the eyes of local citizens due to heavy pollution.

The Council originated from a series of yearly conferences on the river that were held by the Maine Department of Environmental Protection and the Androscoggin Valley Council of Governments. Regional meetings then were convened to determine the need for a watershed council, and missions and goals were drafted and presented at subsequent public meetings. The organizing committee, which was composed of various organizations, developed a strategic plan for the Council that included an organizational structure and short-term goals. The Council was formed officially on July 23, 1999.

The Council is not an advocacy organization due to the diversity of interests within the membership. Instead, it serves as an educational institution that promotes the river as a recreational resource. It does not implement specific projects within the watershed, except for an annual canoe trek that garners a large amount of publicity for the river. Other projects managed by the Council include water quality sampling and a review of New Hampshire and Maine Water Quality Standards. Other specifically approved projects are carried out by subcommittees of the Council's Steering Committee.

Structure and Responsibilities

The Council consists of a Steering Committee, various subcommittees, an Executive Committee, and an annual Nominating Committee, as well as its general membership base. The Steering Committee meets quarterly and is responsible for the following aspects of watershed management and institutional coordination:

- Developing policy;
- Reviewing and proposing amendments to the bylaws of the council;
- Reviewing and approving membership to the council;
- Setting the annual meeting agenda;
- Approving an annual budget;
- Establishing an ongoing strategy to address the needs of the council;
- Forming subcommittees to carry out the needs of the council;
- Overseeing activities of the subcommittees; and
- Planning conferences, events, and other functions for members and the public.

Steering Committee members are elected by the membership for two-year terms and are evenly distributed among the diverse interests. The Steering Committee consists of representatives from the following sectors and members:

- three large businesses;
- three small businesses;

- three nonprofit organizations;
- three governmental agencies;
- three municipalities;
- three private individuals; and
- four person Executive Committee.

Executive Committee members are elected for one-year terms and come from organizations other than those serving on the Steering Committee. The Executive Committee meets monthly and is responsible for the following tasks:

- Providing oversight of the organization;
- Developing annual budgets for Steering Committee approval;
- Approving fiscal agreements with subcommittees of the council;
- Advising the Executive Director and staff of the overall operations of the council; and
- Requesting specific project reports of the organization.

The Executive Committee is responsible for the day-to-day operations of the Council. This includes bringing new issues to the Steering Committee meetings for consensus or a vote. When the Steering Committee approves a new agenda, subcommittees of the Steering Committee are convened to carry out that agenda due to the absence of permanent staff. Subcommittee involvement is voluntary and consists of members from the Steering Committee. Sample subcommittees include Communications, Riparian Buffers, Community Partnerships, and Education.

The Executive Committee also is responsible for creating annual and project-related budgets. Budgets are built from the bottom-up. Subcommittee members are asked what they think they will need to complete their mission for the upcoming year. The Executive Committee uses these responses to create the annual budget, which then is presented to the Steering Committee for a vote.

The Nominating Committee, which is appointed by the Executive Committee four months before Steering Committee elections, is responsible for several key tasks, including:

- Soliciting nomination input from members;
- Providing a listing of nominees to the Steering Committee two months prior to the annual meeting;
- Presenting a slate of nominees at the annual meeting for vote by the membership; and
- Verifying credentials of nominees at the annual meeting, verifying credentials of any nominees from the floor at the annual meeting, and providing any additional support function as deemed necessary by the Steering Committee and the Chairperson of the Council.

Policy Development

The policies of the Council are based on its organizational goals, which were drafted before the council was officially created. Input was gathered during a series of public meetings and the goals were approved when the Council convened. The Council does develop new policies, but they usually come out of the previously agreed upon goals. This ensures that, in the early stages of the development of the organization, new policies will not be contentious for Council members. Most new policies or projects that are brought to the Steering Committee for approval usually are issues where there most likely would be a consensus. If there is not a consensus on a new policy or project, the Steering Committee will vote on whether to adopt the policy or implement a new project. A quorum is needed to pass any contentious issue. A 2/3-majority vote must be achieved for Guiding Principle and Council Policy Decisions.

Engaging Business and Communities

The participation of business and local communities is essential to the success of the watershed council. Engaging business has not been a problem for the Androscoggin Watershed Council. Businesses have realized that, as the reputation of the river as a valuable resource grows, they stand to benefit just as much as the nonprofit or local communities. The more attractive the area becomes the more appealing it is to new industry and tourism.

Additionally, citizens will gain a better view of current industry, as industry participates in an organization that is working to improve the watershed and the region. Industry also is a major landowner in the watershed and should be interested in the developments of the Council.

The participation of towns is equally important to the success of the council; however it has been more difficult to include them. This is partially because historically these New England towns have been independent. The challenge is to educate the towns on regional planning and the possible benefits of participating in Council discussions. One of the Council subcommittees, called Community Partnerships, makes presentations to local communities about the Council's goals, and the benefits of membership and attendance in the Council.

Key Strengths and Weakness

According to the coordinator of the Council, a key weakness of the organization is that they cannot advocate for water quality and water quality standards, due to the diversity of interests represented. However, having a diverse membership base allows for a more balanced discussion, which is the greatest strength of the Council. Additionally, many of the landowners and funding institutions within the watershed are represented, and are informed of conservation opportunities and the needs of the Council. This encourages the participation of local nonprofit groups.

Information on the Androscoggin Watershed Council was obtained from Marcel Polak and from the Council's website at <http://www.andro-watershed.org>.

Case Study 2: Saginaw Bay Watershed Initiative Network (WIN)

The Saginaw Bay Watershed Initiative Network (Saginaw Bay WIN) was initiated in 1994 by the Dow Chemical Company in partnership with The Conservation Fund, to maximize funding resources and conservation efforts in the watershed. The Network consists of members from the community, business, conservation organizations, government, and foundations. The Saginaw Bay WIN was created to enhance the quality of life in the watershed through a network of regional projects. Because a primary goal is to implement projects, the member organizations composing WIN work closely with a group of regional and local foundations.

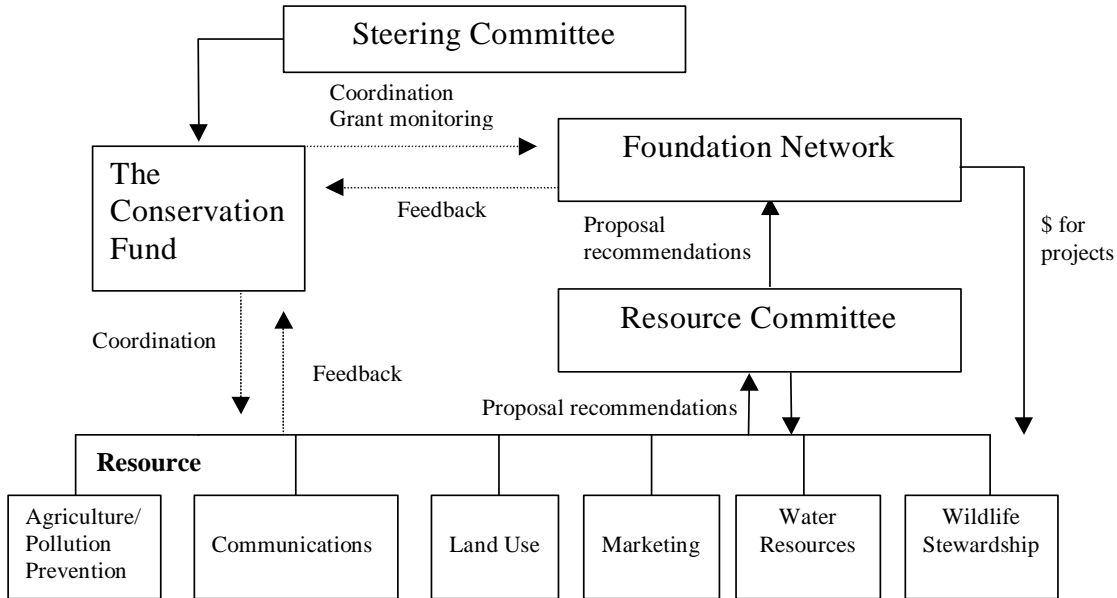
Structure and Responsibilities

There is a four-tiered structure to the Saginaw Bay WIN, consisting of six resource groups, a resource committee, a foundation network, and a steering committee. Each member of WIN belongs to one or more of the resource groups depending on interest: land use; water resources; wildlife stewardship; agriculture/pollution prevention; communications and marketing. The project implementation process starts with individual members who develop project proposals. Proposals then are submitted to the appropriate resource group and are peer-reviewed to ensure that they are within the Network's mission. The resource groups also provide peer review and input. If a project is approved by the resource group, it is forwarded to the Resource Committee, which includes every member of WIN. The Committee meets twice a year to vote on proposals, which are accepted and passed on to the Foundation Network (discussed below), or sent back to the resource group for further clarification. Proposals that are not recommended to the foundation network by the Committee still can be submitted independently to foundations.

A network of foundations works closely with WIN to implement projects. The Foundation Network consists of foundations and grant-making organizations of all sizes, geographical boundaries and missions. Once the Resource Committee recommends a proposal, it is reviewed at a meeting of foundation network members. If there is unanimous approval by the Foundation Network, a project will be funded from a dedicated pool of resources for the WIN. Network members can abstain from voting if a proposal does not meet their specific foundation criteria, purpose or geographic scope. The Foundation Network makes the final decision as to whether or not a project will be funded.

The Saginaw Bay WIN is coordinated by The Conservation Fund. Specifically, the Fund schedules and advertises meetings, facilitates communication among members, interacts with public agencies and other nonprofits, and publicizes WIN events. The Fund does not influence WIN decisions; however, it develops and reviews proposals, and monitors grant projects funded by the Foundation Network.

A Steering Committee manages the WIN's activities and coordination efforts, and serves as the Board of Directors. The Steering Committee is comprised of five people who represent key network members. The organizational structure of the Saginaw Bay WIN is shown below.



Key Strengths and Weaknesses

A lack of communication and collaboration among resource groups was cited by members as a weakness of this network's structure. Several strengths were noted as well. WIN's structure is unique in that it promotes project implementation by matching projects with a broad range of funding sources. Second, proposals pass through a peer review process ensuring that those recommended to the Foundation Network are likely to succeed and to address the needs of the watershed. Furthermore, peer review by nonprofits and foundations ensures maximum coordination of projects and resources, as everyone is informed of what projects are implemented and funded. Third, the broad range of resource groups allows for a variety of interests to participate, ensuring diverse project proposals to the Foundation Network. Lastly, there is a sense of ownership among the local groups, since the coordinators take a "hands-off" approach and allows the Network members to be credited with successes.

Engaging Business

Unlike the Androscoggin Watershed Council, business participation in the Saginaw Bay WIN has been limited to a few key players, and the recruitment of business has been slow, mostly because the WIN focuses on project implementation. WIN expects to have more business participation in the future and will use a number of resources to recruit new business.

As the goals and mission of the Network are non-confrontational, participation should be attractive to the business community. Additionally, since WIN has support from government agencies and economic development organizations, the business community should look more favorably upon the Network. This is a key point. As business interests realize that there is support from like-minded organizations and that the Network is not anti-business, they should become more comfortable with the Network. Lastly, as the region benefits from the work of the Network, tourism for the area should increase and more business opportunities should arise.

Several methods of engaging business were mentioned. First, the Network is looking to engage businesses that have a direct link to the Saginaw Bay. An increase in the quality of life in the Bay watershed should increase business opportunities for tourism, recreation, or development based businesses. Next, the Network would like to become more visible to the business community, through participation in the chamber of commerce and festivals or events. WIN also hopes to use member's relationships with local businesses to engage their participation in the Network.

Information on the Saginaw Bay Watershed Information Network was obtained from Mike Kelly, Jay West, the Saginaw Bay WIN website at <http://www.saginawbaywin.org>, and from the Conservation Fund's Great Lakes Office website at <http://www.conservationfund.org/conservation/sustain/gloindex.html>.

Case Study 3: Henry's Fork Watershed Council (ID)

The Henry's Fork Watershed Council was chartered by the Idaho legislature in 1994, in response to the growing demand for communication among diverse interests within the Henry's Fork Basin. Preceding the formation of the Council was the passage of the Henry's Fork Basin Plan by the Idaho legislature in 1993. Immediately after passage, it was apparent that there needed to be a consensus-building process that included all interested parties, in order to effectively carry out the recommendations and goals of the Basin Plan.

The specific duties of the council, as outlined by the Idaho legislature, are as follows.

- Cooperating in resource studies and planning that go beyond jurisdictional duties.
- Respecting the roles, water rights, and other rights of each member of the basin.
- Reviewing and analyzing watershed projects and Basin Plan recommendations.
- Suggesting priorities for implementation of Basin Plan recommendations.
- Coordinating funding for research, planning, and monitoring programs.
- Serving as an educational resource to both the Idaho Legislature and the general public.
- Communicating the Council's progress through reports, the media, and other educational presentations.

Structure and Responsibilities

The Council consists of citizens, scientists, nonprofits and agency representatives. Council meetings first bring these diverse interests together, then break out into work sessions. The three work groups include a citizen group, a technical team, and an agency roundtable. The Council is co-facilitated by the Fremont-Madison Irrigation District and the Henry's Fork Foundation. The facilitators are responsible for the Council's administration and coordination, as well as facilitating work group meetings. Additionally, they are responsible for coordinating public information activities and for submitting an annual report to the Idaho legislature.

Any organization initiating a project within the watershed is urged to bring it before the Council for endorsement. This includes public agencies, nonprofit organizations, and Council members. A project is presented before the full Council and the Council then breaks out into its three work groups. Each work group is facilitated by one member from the Henry's Fork Foundation, and one member from the Fremont-Madison Irrigation District. The work groups ensure that each individual feels comfortable speaking in their setting and that the observations of different-minded people (scientists, citizens, government) are equally presented to the full Council.

After the work groups discuss the project, the full Council is reconvened. Each work group presents the major points from their discussions to the rest of the Council and states whether or not they endorse the project. All three work groups must endorse a project for it to be endorsed by the full Council. Occasionally, the full Council will make recommendations on how the proposal could be modified in order to receive the Council's endorsement. If the Council is especially interested in a project or an issue area, a subcommittee may be formed to guide the developments of the project.

Projects within the Basin are reviewed by the Council using what is called the Watershed Integrity Review and Evaluation (WIRE) process. WIRE evaluates projects using following ten criteria.

- Does the project reflect a total watershed perspective?

- Credibility of research and data.
- Does it identify resource problems and workable solutions?
- Does it understand basics of water supply?
- Management of the project.
- Does it emphasize sustainable ecosystems?
- Does it address social and cultural concerns?
- Does it address and help sustain the local economy?
- Is there cooperation among all parties and coordination among all groups and agencies?
- The legality of the project.

Projects endorsed by the Council through the WIRE process may seek funding assistance, political support, or interagency cooperation in their implementation. There is a limitation to how much the Council can fund (usually around 10% or \$2000) through a common source of funds, flowing from the Henry's Fork Watershed Fund and the state. An annual "State of the Watershed" Conference is held each fall to monitor the progress of Council-endorsed projects and to present research and monitoring results.

The Henry's Fork Watershed Fund was established by the State of Idaho to help fund projects in the Basin and to defray Council administrative expenses. The Watershed Fund also receives contributions from the private sector.

A watershed center, which is maintained by the Henry's Fork Foundation, has been established to provide a library, database repository, and a central focal point for Council needs. The watershed center houses the following operations and provides the following services.

- A research facility for agency and university scientists with computer stations and a GIS system that integrates research within the watershed.
- A library where anyone can check out books, periodicals, and maps.
- A center for the operations of the Watershed Council.
- A center for the Education and Outreach of the watershed council.
- A central place for community information such as tourism booklets, etc.

Information on Henry's Fork Watershed Council was obtained from Susan Steinman, and from the Council's website at <http://www.henrysfork.org>.

Case Study 4: Alliance for the Chesapeake Bay

The Alliance for the Chesapeake Bay was founded in 1971 for the purpose of increasing public involvement in restoration, as well as to educate the Chesapeake Bay Program and the general public on policy and restoration issues. The Alliance is not an advocacy organization as it strives to provide unbiased interpretations and analyses of Bay issues and Chesapeake Bay Program policies.

The Alliance is incorporated as a nonprofit organization and is fully staffed, including staff working out of the Chesapeake Bay Program offices. It is funded through a combination of Federal, State, and foundation sources. The Alliance not only serves its membership base, but the general public as a whole. Alliance projects are implemented by the staff, who may partner with member organizations. Additionally, the Alliance may carry out some of the Chesapeake Bay Program Initiatives.

Structure and Responsibilities

A Board of Directors, who set up general guiding criteria for the Alliance, governs the Alliance. There are no specific policies of the Alliance, as it is comprised of a diverse set of interests and wishes to remain unbiased. Instead of setting policy, the Board may recommend certain issues on which the Alliance should focus. Since the Board represents the diversity of interests within the Alliance, there does not have to be consensus on a given issue or recommendation. Additionally, the Board does not have to give final approval on specific projects.

Subcommittees may form within the Board of Directors and serve to give general direction on an issue. It is the job of the Alliance staff to take this direction and initiate and implement a project to will address the particular issue.

The Board of Directors is comprised of 26 members with six officers: a President, Secretary, Treasurer, and a Vice President for each state (PA, MD, VA). The Alliance also is comprised of three program areas through which the majority of its projects are completed.

1. The *Watershed Stewardship* program area addresses physical projects within the watershed and strives to promote community involvement in water quality and habitat improvement. Specific activities of the Watershed Stewardship program may include habitat and riparian restoration, monitoring programs, pollution prevention programs, trail and sojourn development, and grants to watershed organizations. It also trains volunteers, watershed organizations, and businesses with the skills necessary to complete physical and monitoring projects.
2. The *Information and Outreach* program area develops and distributes journals, newsletters, news releases, and other in-depth publications on the Chesapeake Bay. All publications attempt to approach each issue from an unbiased perspective and to present the facts to the public and to Chesapeake Bay Program policy makers.
3. The *Public Policy* program area fosters public participation on policy issues. Specifically, the goal is to connect local efforts with regional efforts. This is done through conferences, forums, workshops, and a 25 member Citizens Advisory Committee to the Chesapeake Bay Program, which includes representatives from industry, environmental groups, local government, agriculture, and education.

The Citizens Advisory Committee serves by providing the Chesapeake Bay Program with advice on policy issues and how they will affect the public. If possible, members of the advisory committee will also communicate the policies of the Chesapeake Bay Program back to their constituency.

Information on the Alliance for the Chesapeake Bay was obtained from Pat Devlin and from the Alliance's website at <http://www.acb-online.org>.

Case Study 5: Mississippi River Basin Alliance

The Mississippi River Basin Alliance was started in 1992 and is a staffed, nonprofit group with 152 member organizations, most of which focus on social justice and conservation. The Alliance's members represent a broad range of interests within the Mississippi River Basin including agriculture, community-based development, conservation (fish and wildlife), cultural preservation and tourism, general environmental issues, environmental education, health and toxics, labor, and religious, environmental and social justice. The Alliance serves as a communication network linking organizations in the lower and upper portions of the Basin. It does this through a newsletter, website, and educational materials.

The priority focus areas of the Alliance are sustainable agriculture, wetlands restoration, water quality and toxics, and navigation. Foundation support largely determines these priority areas. Additionally, the Alliance attempts to primarily address issues that are Basin-wide, as there is no overarching public agency responsible for the Mississippi River Basin and member organizations do not have the capacity to focus on these issues.

Structure and Responsibilities

A 16-person Coordinating Council meets on a quarterly basis and is responsible for setting Alliance policy. The Coordinating Council members represent a cross-section of geography, race, and interest area within the Alliance. Membership within the Coordinating Council is determined by a vote of the overall Alliance at the annual meeting. At the annual meeting 1/3 of the Coordinating Council members are voted in for three year terms.

The process of setting Alliance policy begins with members bringing a resolution to the Coordinating Council. A committee is formed by the Coordinating Council to discuss and refine the resolution. The resolution then is brought back before the Coordinating Council who can recommend it for approval. After passing the Council's

recommendation, there are two periods where the membership may comment on the resolution. The resolution then is brought before the Alliance and can be adopted by a majority vote.

Alliance members may participate in one of a number of subcommittees that carry out the Alliance's activities. Examples of the subcommittees are as follows.

- Programs and Projects
- Communication and Networking
- Funding and Membership
- Structure and Nominations
- Environmental Health
- Annual Meetings
- Finance

The Alliance also has a small full-time staff that is responsible for the day-to-day operations of the Alliance. This includes addressing Basin-wide issues, building up member organizations, and maintaining communication among groups. The Alliance also provides members with grant training, other fundamental training, and some technological assistance. At present, they do not provide grants to members for specific projects.

Information on the Mississippi River Basin Alliance was obtained from Jim Falvey, and from the Alliance's website at <http://www.mrba.org>.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.3	Foundation Network	Funding agencies and private foundations serving the watershed	Improve coordination Build capacity Plan implementation Strategic conservation	General

Description

Nonprofits and public agencies alike face critical funding needs to support their activities. Due to limited staff capacity, many nonprofits do not have development staff and thus are challenged in cultivating funding. Public agencies may face limited staff time or lack of funds for implementing conservation projects. Institutionalizing a system for conservation funding in the watershed would help provide the critical link between funders and watershed nonprofits, agencies and local governments.

We recommend the formation of a foundation network to coordinate funding for watershed activities. This network, including representatives of funding agencies and private foundations, would help funders learn what types of programs are being funded in the watershed, which could stimulate new proposals and projects. In addition the foundation network would work on leveraging and attracting new sources of funding for watershed management. The network of funders also could play a role in ensuring implementation of priority projects identified in this Plan and other watershed efforts. Based on the results of this Plan, priority areas for future funding might include: professional training and capacity building of local organizations; funding a basin-wide monitoring program; and implementation of land protection activities that support the conservation of critical habitats and landscape connectors and water quality. All watershed foundations, funding agencies and private corporations, actively involved in or seeking to support watershed management in the Schuylkill River watershed, should participate in the foundation network.

One example of an institutionalized watershed funding system is the Saginaw Bay WIN Funding Network, consisting of diverse regional and local funders, that has been successfully operating since 1994 in Saginaw Bay, Michigan. Funders from throughout that region have created a small pool of funds dedicated to the watershed. These funders meet biannually to discuss conservation projects and decide which projects will be funded from the dedicated watershed pool. Prior to presentation to the Funding Network, proposals receive substantial scrutiny

through a peer review process. Only those proposals unanimously approved by the Funding Network are awarded funds from the dedicated pool. This peer review system assures funders that funded projects are practicable, have local support, and are important to the health and management of the watershed. In addition, peer review permits groups to cooperatively expand and revise proposals based on mutual expertise. At the same time, watershed groups are assured that proposals supported by watershed stakeholders and presented to the Funding Network have a high probability of being funded.

Members of the Funding Network continue to support projects through their own individual programs, and according to their organizational missions. However, the funding network dedicates additional funds for broad-scale watershed activities that might not otherwise receive funding. In addition, the network facilitates communication, so that funders are up-to-date on projects being funded through members' individual programs, and may coordinate to better implement these projects. The process drives cooperation and coordination, maximizing limited resources and environmental benefits. The Saginaw Bay model of a watershed funding network has proven that new sources of funding become available as coordination improves and public awareness of an organized broad-scale effort increases. See Recommendation **R7.2**, Case Study 2 for more information on the Saginaw Bay funding and watershed networks.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.4	Institutionalize Professional Training	Agencies and nonprofits in the watershed	Build capacity	General

Description

Two of the greatest needs highlighted by public agencies and nonprofits were increased staffing and resources. Professional training is one solution to maximize staff effectiveness and employee skills. In order for the environmental movement to maximize resources and take advantage of new opportunities, environmental professionals need new tools and skills to efficiently address watershed challenges. Public agency representatives highlighted needing technical assistance, increased communications efficiency, improved public relations and increased staffing. Nonprofit groups also requested training on technical assistance, fundraising, strategic planning, volunteer coordination, operations, and board management. Training programs should focus on leadership and organizational management as well as on watershed issues and technical tools for resource management.

An ongoing professional training program for public, nonprofit and private conservation professionals should be institutionalized in the watershed. Continuing professional training and development should be incorporated into daily operations. Groups and/or public agencies need to develop training courses targeted to the Schuylkill River watershed. To facilitate this, private funders and/or a foundation network should help provide resources for training and professional development. Alternately, the state and nonprofit leadership should encourage members to attend training programs currently offered by organizations like the US Fish and Wildlife Service, the Land Trust Alliance, The Conservation Fund and other national agencies and nonprofits. The state or appropriate nonprofits also might consider developing partnerships with academic institutions for technical training on GIS and other tools for conservation, or with corporate training programs for courses on leadership and organizational management.

The increasing number of local grassroots organizations, along with new sources of state and federal funding, have created an unprecedented demand for professional training on conservation and sustainable development. While present training programs are an excellent resource for some groups, the majority of local organizations do not have the time, staff or resources to pay for travel, lodging and registration fees of traditional on-site education programs. One solution to this problem is the development of distance learning programs for nonprofit and agency staff. Distance learning programs are flexible in the timing and method of distribution, and can allow the "student" to take a course at their own pace, on their own time. Programs may be distributed through a variety of media, including computer-assisted training, video, audio, interactive satellite broadcast, and videoconferencing. Done properly, distance learning can provide the high-quality, flexible, customized and locally accessible education and training required by nonprofits and other local groups. The Conservation Fund, in cooperation with the USFWS National Conservation Training Center and others, is initiating a series of distance learning programs for grassroots groups.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.5	Explore Nonprofit – Public Agency Partnerships	All nonprofits, agencies and local government in the watershed	Improve coordination Build capacity	General 7.4.2.3

Description

Because problems in one reach of the watershed may affect water quality and habitat quality elsewhere, watershed issues often are best addressed through coordinated efforts. Over 80% of the Public Agency Survey respondents said that partnerships were best suited to solve watershed problems, in spite of the only 3% of agencies currently engaged in such partnerships. In terms of services offered, the public sector generally is not engaged in direct education and outreach, land acquisition or coalition building. These areas present opportunities for watershed nonprofits to fill project gaps that may not be adequately addressed by the public sector. Additionally, both public agencies and nonprofit groups noted their need for increased staffing to be more effective. Taking a conservative approach to increased funding, agencies may wish to build their internal capacity by instituting formal outreach programs to watershed associations in order to leverage resources and personnel, and vice versa. Furthermore, many agencies suggested regulatory and policy changes; the nonprofit community could be a valuable partner to advocate changes in these areas.

On the other hand, the public sector has services and experience that would fill needs of local and regional nonprofit groups. In addition, the private sector, a potentially rich source of funding, technical expertise and support, has not been fully engaged in watershed activities. To mutually leverage their activities in these areas and to supplement their training needs, public agencies should partner with nonprofits and the private sector. Establishing and coordinating partnerships between the public and nonprofit sectors can be implemented through watershed meetings, a watershed directory, and most importantly, a watershed network (see Recommendations **R7.2**, **R 7.7**, **R7.10** and **R7.20**).

Professional Mentoring and Outreach

We also see a unique training opportunity from partnerships among agencies and nonprofits. Different groups can offer assistance or mentoring on technical, public outreach and institutional issues. Public agencies have institutional and funding-related resources that nonprofits need, and nonprofit groups can provide grassroots training and information that public agencies may need. In addition to formal professional training, nonprofit groups and public agencies with professional expertise should be encouraged to form mentoring relationships and staff exchanges with watershed groups in need of organizational or technical assistance. Informal training and staff exchanges could promote nonprofit understanding of local government planning issues, and local government understanding of watershed environmental issues, as discussed below in Recommendation **R7.6** below. Topical watershed meetings, the watershed directory, and the watershed clearinghouse also would facilitate mentoring relationships (see Recommendations **R7.2**, **R7.7**, **R7.10** and **R7.20**).

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.6	Promote Public Awareness of Watershed Issues	Nonprofits, agencies and citizen groups engaged in education and public outreach	Public awareness	General

Description

Public meetings throughout the watershed revealed the need to raise public awareness of the valuable resources, both natural and cultural, within the Schuylkill River watershed. The public opinion poll suggested that some watershed residents were not familiar with the name or the geographic extent of their watershed. General public outreach, citizen monitoring or other volunteer opportunities, education on watershed address and watershed boundary signage could help promote public awareness and a “sense of place.”

Signage, made of local materials or stenciled on roads, could be placed to mark the boundaries of the watershed along with stream names, and assist in public outreach. A logo could be designed for use on signs or road surfaces to show where drivers and pedestrians enter and leave the watershed. Other watersheds, such as the Chesapeake Bay have used such logos to raise awareness very effectively. To minimize scenic degradation, the logos for the Schuylkill River watershed could be applied directly to road and sidewalk surfaces rather than as mounted, vertical signage.

Education projects might help residents identify their “watershed address” as well as providing information about key functions of the Schuylkill River watershed. Nonprofits, citizen groups and agencies involved in public education and outreach should consider incorporating broader concerns related to watershed health into their materials, as well as creative ways of enhancing the population’s “sense of place” in the watershed. For example, drinking water source protection is a compelling health issue and one way to engage public awareness about the importance of a healthy watershed. Projects that market Schuylkill River watershed assets (both cultural and natural resources and their functions) can raise awareness of the watershed’s many economic, ecological, cultural and aesthetic benefits. Similarly, citizen-based monitoring and volunteer efforts bring the public in direct contact with their environment. Providing opportunities for the public to experience and participate in the maintenance of their watershed can improve public awareness and commitment to long-term sustainable resource use.

As was noted during one public meeting, many nonprofits and school districts educate school children about watershed issues; however, outreach to adults also must occur. Ideas on how to reach adults included the following.

- Design a standard watershed exhibit, common resources slide show, or video that could be used by many different nonprofits providing educational outreach.
- Promote public education and distance learning opportunities accessible through the Internet, satellite or local television stations.
- Coordinate with public libraries and other public areas to display and promote educational materials and resources on watershed issues.
- Widely advertise opportunities for citizen involvement and community celebration of the watershed, particularly activities for young adults, families and senior citizens. Examples of community participation include river clean-up days, citizen monitoring, community planning or “visioning” charettes, river festivals, historic and cultural festivals, expert-led hikes, group recreation and birding opportunities. Community planning and “visioning” events are a powerful way to develop public awareness and support for conservation and sustainable development. EPA Region III offers a Green Communities Assistance Kit, an online, step-by step guide for planning and implementation, that can assist communities in taking action.
- Improve outreach to municipal government officials. Local governments hold a great deal of responsibility through their planning powers. Yet many local officials do not fully understand the environmental issues at stake in planning and development. Local governments and nonprofits need to learn how to better communicate with one another. Therefore, nonprofit representatives should be educated on local government issues, such as zoning, sewage and planning. Likewise, local government representatives should be educated on basic watershed ecology and environmental issues affected by their policies.
- Instill a sense of river stewardship through strategies that involve a direct connection to the river and encouraging the formation of Riverkeeper-type groups for advocacy and outreach.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.7	Filling Geographic Gaps and Coordinating Service among Nonprofits	See <i>Tables 7.3 to 7.23</i> and corresponding activity maps for potential overlap and gap areas and specific nonprofits	Improve coordination	7.3.2.1

Description

The Nonprofit Survey revealed that certain subwatersheds may be under-served by local nonprofit groups while other subwatersheds appear to be well covered by several nonprofit groups. Generally, the headwaters and parts of the lower Schuylkill River watershed are less well served by local groups, although some watershed-wide groups may serve these areas. Considering the high ecological value of these areas for landscape stability and ecosystem health, the headwaters should be a target for coordinating nonprofit conservation and restoration activities. The lower Schuylkill River watershed should be targeted for community and urban redevelopment, education and outreach activities.

In order to address potential geographic gaps, the State, funders and nonprofit groups should study the feasibility of expanding the existing nonprofits' geographic reach to cover areas of the watershed that are under-served, or facilitate the formation of new watershed nonprofits, volunteer organizations, or partnerships of existing groups. In order to address areas with several local organizations, groups should work cooperatively to maximize effectiveness through leveraging expertise and resources. In certain cases where nonprofit groups do not take the lead, the State and regional foundations may want to assist in convening these cooperative efforts.

Convene Topical Watershed Meetings

One way to improve coordination and maximize cooperative efforts is to convene topical watershed meetings to discuss ways for government and nonprofits to bridge gaps and work cooperatively in areas served by multiple groups. Topical watershed meetings should be convened around watershed activities (e.g., education and outreach) identified by the Nonprofit Survey and the Public Agency Survey, in the geographic areas where overlap or gaps in nonprofit activities occur. Local nonprofits, watershed-wide, regional and national nonprofits, public agencies and citizen stakeholders should be represented at these meetings. To maximize results, a neutral party should convene these meetings.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.8	Political verses Natural Geographic Service Area Coverage	See nonprofit activity maps in <i>Section 7.3.2.1</i> for specific nonprofits with boundary issues; also applies to watershed public agencies	Improve coordination	General 7.3.2.1

Description

Some of the geographic gaps in nonprofit service revealed through the Nonprofit Gap Analysis are a result of nonprofit groups providing services along political boundaries. Public agencies likewise may be restricted to political boundaries that are in conflict with local geography and service needs. Nonprofit groups should consider expanding their service areas to represent geographic boundaries, and not political boundaries, in order to maximize their benefit to natural resources. Public agencies and local governments may be constricted along political boundaries but can coordinate with other entities across these political boundaries and along natural, subwatershed boundaries. Organizations that expand their services across political boundaries may benefit from access to new funding sources. For example, the Delaware Basin Regional Commission has successfully financed individual projects by combining funding from more than one political area. One example of progress in this area for public agencies is the recent focus of Resource Conservation Districts on working within and across watershed boundaries and the recent hiring of approximately 45 Watershed Specialists for Pennsylvania.

Table 7.1 lists the primary geographic focus areas for each of the nonprofit organizations surveyed in this analysis. These focus areas are displayed graphically in the [Nonprofit Service Area](#) maps in the online Reference Documents. These Service Area maps formed the basis for the Nonprofit Gap Analysis and the nonprofit activity maps referenced in *Section 7.3.2.1* and available in the online Reference Documents.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.9	Comprehensive Nonprofit Survey	All nonprofits and volunteer groups in the watershed	Improve coordination	7.3.2.1

Description

A comprehensive watershed-wide survey should aim to locate all nonprofits and volunteer groups, in order to identify true gaps and overlaps in nonprofit service, to include groups more effectively in the watershed-wide planning process, and to obtain a more detailed understanding of the established nonprofit framework. The survey should include the full range of local, regional and national nonprofits and other volunteer groups working in the Schuylkill River watershed.

Consultation with local partners produced an estimate of over 60 staffed and around 100 citizen groups active in the watershed who should be included in a comprehensive survey. To efficiently reach watershed groups, the survey staff should identify key nonprofits and citizen groups who are in contact with smaller or more local groups; for example, the Berks County Conservancy, the Schuylkill Riverkeeper, the Schuylkill River Greenways Association or the Pennsylvania Environmental Council. These key contacts could provide lists of nonprofit and citizen groups in their area to be added to the survey list. These groups should in turn be contacted to notify them of the survey effort and to ask about other watershed groups not already on the list. Once a comprehensive list has been compiled, a brief survey should be circulated to all the groups in the watershed. The survey responses should be monitored to encourage the greatest participation possible. The survey itself might contain questions related to service area boundaries and activities, as well as information important for an updated watershed directory (see Recommendation **R7.10** below).

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.10	Updated Watershed Directory	All nonprofits, volunteer groups, environmental action committees and appropriate public agencies in the watershed	Improve coordination Build capacity Public awareness Data clearinghouse	General

Description

The institutional assessment revealed that a single, updated resource on watershed organizations and public agencies was lacking. Assembling an updated directory of watershed entities would be a simple and valuable implementation step. An updated Schuylkill River watershed directory should be made available in both printed and web-based format, and should include information such as the name, contact information, mission and service areas of each organization. The updated watershed directory should include all staffed and volunteer groups in the watershed. One example of an institutional directory is the *1998-1999 River and Watershed Conservation Directory* produced by the River Network and the National Park Service Rivers, Trails and Conservation Assistance department. In this Directory, groups are organized by major watershed area. A directory for the Schuylkill should be organized into subwatersheds or major river sections. The directory should include more detailed information such as specific projects and activities, maps of service area boundaries, and specific streams or river reaches where each group is active.

PA DCNR has initiated a directory of watershed organizations that could form the basis for this updated Schuylkill River Watershed Directory. A comprehensive watershed nonprofit survey would facilitate the compilation of a Schuylkill River Watershed Directory (see Recommendation **R7.9**).

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.11	Watershed Clearinghouse	Watershed-wide data coverage to benefit nonprofits, local governments, public agencies and citizens	Improve coordination Build capacity Public awareness Data clearinghouse	General

Description

To improve access to critical information, a Schuylkill River watershed clearinghouse should be developed as a resource for the watershed population. This web-based service would hold various watershed-related documents and network information, including the watershed directory, links to active organizations, frequently asked questions, this Watershed Conservation Plan and other related reports and technical data. The clearinghouse could facilitate partnerships, mentoring, volunteer coordination and resource sharing among public agencies and nonprofits. The watershed clearinghouse should include data coverage to benefit nonprofits, local governments, public agencies and citizens.

The website would also provide gateway access to the Schuylkill River Watershed GIS database, and potentially, to an interactive mapping tool to improve public outreach and adaptive management. In addition, the clearinghouse could contain information on the proposed foundation network, sources of funding and grant-writing tips, links to the proposed watershed service center, and general information on watershed health, management and opportunities for public participation, serving as outreach and education for the people of the watershed. See Recommendations **R7.3** and **R7.12** for further information on the foundation network and service center.

The following examples of web-based data clearinghouses describe some existing resources for watershed issues. Each example presents strengths and weaknesses of the site relevant to the creation of a Schuylkill River watershed clearinghouse.

- The EPA’s Watershed Information Network (<http://www.epa.gov/win>), provides access to a large amount of information on watersheds. The Information Network is a gateway for three separate websites from the US Geological Survey, Purdue University, and the US EPA. The featured sites each focus on a different watershed issue. The USGS site focuses on science and provides information on current projects, scientific publications, and data access. The US EPA link is to the *Surf Your Watershed* site, which provides an assessment of conditions within a given watershed, as well an analysis of the quality of data used in these assessments.

The Purdue University website link is called *Know Your Watershed*, and is an excellent resource for information on watershed conservation. The website provides links to watershed partners, including state watershed contacts, a national watershed network, and links to national organizations that provide funding. Inside the national watershed network link there is an additional searchable interface for locating other watershed managers who have dealt with similar projects or issues. A comparable type of project or issue database could work well in a relatively small watershed such as the Schuylkill, but would require voluntary posting of documents and reports by individual groups. The Purdue website also has helpful educational information: for example, a description of Total Maximum Daily Loads (TMDLs). This type of information would be helpful to small nonprofit managers within the Schuylkill River watershed who might need information on public agency programs and policies.

In addition to these links, the interface provides general educational information on what a watershed is, the water cycle and watershed ecology, policy related to clean water, and on potential threats to watershed health. This basic information is a good public outreach tool. A Schuylkill River watershed clearinghouse at minimum should provide links to this information, and potentially contain information on state clean water laws and new developments in legislation that affect watershed management.

As a caution against providing too much information, the EPA’s Watershed Information Network website can be overwhelming when trying to answer a specific question. The proposed Schuylkill River clearinghouse

should not include so much information that it becomes ineffective. Additionally, information should be as accessible and well-organized as possible, with breakdown menus and a site directory.

- The EPA's Watershed Tools Directory (<http://www.epa.gov/OWOW/watershed/tools>), is a list of links grouped into twelve general categories. The links provide the user with information on how to order the "tools" which include publications, computer programs, or datasets. A strength of this website is its easy-to-use, searchable interface, which enables the user to quickly find the specific tool they need based on a subject of interest.
- The Center for Watershed Protection maintains a website at <http://www.cwp.org> with a variety of scientific and policy-related information on watersheds. The center provides links to actual and sample ordinances for communities to use as models for developing local policy, a very useful tool for nonprofits and local governments. The Schuylkill River watershed clearinghouse could take this one step further, and provide model grant proposals for different types of projects, and sample monitoring programs for community volunteers or organizations.
- The American Rivers website (<http://www.americanrivers.org>) has several interesting ideas that could be implemented in a Schuylkill River watershed clearinghouse. One example is that of an issue-specific message board. The American Rivers page hosts message boards and chat rooms where interested people can discuss and exchange ideas. They also occasionally host an "issue expert" who facilitates discussion and provides in-depth information, and is available for contact after the chat session.

American Rivers' website is organized by river campaign. Each river campaign has its own section on the website, in which the user learns about local threats to water quality and action to mitigate these threats. The Schuylkill River watershed clearinghouse could be organized similarly along river reaches or subwatersheds, to address the diversity of local threats in the different sections of the river. Alternately, data and information could be organized by the following issues and/or geography:

- acid mine drainage/headwaters;
 - agricultural/central portion of the watershed; and
 - industrial/central and southern portion of the watershed.
- The River Network's website (<http://www.rivernetnetwork.org>) provides information on watershed resources useful for other nonprofits and citizen groups. Resources posted on this site include a directory of funding sources in New England, a calendar of events, links to other organizations' and agencies' online resources, the online National Directory of River and Water Organizations (forthcoming), and links to online resources on general organizational issues for nonprofits.
 - The Pennsylvania Department of Environmental Protection's Office of Water Management website (<http://www.dep.state.pa.us/dep/deputate/watermgt/watermgt.htm>) provides a well-structured interface for accessing information on watershed issues. The website contains a list of fact sheets on several of the most critical issues within the watershed. A detailed listing of fact sheets on almost any issue related to watershed management would serve watershed organizations well throughout the Schuylkill River watershed.

The PA DEP website also has links to actual TMDL's that have been approved by the DEP, which a Schuylkill River watershed clearinghouse could link to and explain in further detail. Another feature of the DEP site is information on dams and dam safety. This could be included in several ways, including a layer in the GIS database, a searchable function that provides information on each dam in the watershed and its uses, and fact sheets on dams, dam safety, and dam removal within the watershed.

- The Chesapeake Bay Program (<http://www.chesapeakebay.net>) provides a wide variety of information and links. Resources on this website include a database of environmentally-sound design practices, featured projects, a Watershed Leadership Kit, CBP workshop schedule, a database of model ordinances, various publications and educational information, and an example of a watershed directory along with contact information for partner organizations. This site also includes an annotated list of community resources offered

by partner members, including resources for environmental assessment, community visioning and planning, funding, public outreach, implementation and resource guides.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.12	Watershed Service Center	Nonprofits and local governments in the watershed	Build capacity Data clearinghouse	General

Description

The Nonprofit Survey found that many watershed organizations face basic operational challenges, such as: developing and managing a board of directors; staffing; the need for general support in accounting and bookkeeping; and how to allocate resources and decide upon priorities to meet public demands. Another recent survey supported these findings and determined that Schuylkill River watershed nonprofits need help in the following areas: non-foundation-based fundraising; marketing/communications; board management/development; and strategic planning.

A service center should be developed to aid not only nonprofit groups but also local governments. Regional and national nonprofits could help with design and service options at the service center. One nonprofit might take responsibility for leadership of maintenance of the service center. The service center would be a “one-stop-shop” and help to link nonprofits and local governments with approved technical or organizational experts. This would provide nonprofits with critical services, at a lower overall cost, because the nonprofits would not be required to staff for these services. For example, a nonprofit could use the service center to locate a marketing consultant for particular projects, as needed. One example of an online service center is a new federal website, <http://www.nonprofit.gov>, which provides links to federal government agencies and resources that support nonprofit efforts, including information on grants and partnership programs. A pilot service center for the Schuylkill River watershed could be the first step in building a model state-wide resource with both localized and generalized information. This would encourage cooperation and resource sharing not only within, but also across, watershed boundaries.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.13	Diversify Fundraising	Nonprofits in the watershed, especially smaller groups with funding needs	Build capacity	7.3.2.2

Description

A recent informal survey of many nonprofits in the watershed found that most nonprofits target foundation and government sources of income in their fundraising strategy. The study revealed that foundations contributed over 40% of revenues as compared to the national average of 15% or less. Individual donations accounted for only 13% of revenues, while the national average for individual philanthropy is 85%. One conclusion is that nonprofits in the watershed need to diversify their funding sources away from dependence on private foundations.

Nonprofits in the Schuylkill River watershed generate revenue from a wide variety of sources. Diversified fundraising should be a goal for every nonprofit to protect against sudden changes in funding. Foundation and government funders are viewed as limited funding sources because these sources may not grow in proportion with an organization. Therefore, organizations may have limited growth potential if they rely primarily on these sources. Those nonprofits that rely heavily on foundation and government support should develop a realistic fundraising plan that emphasizes other sources, such as the market of individual donors. Watershed funding is needed for internal, organizational development needs, salaries, and fundraising plans to ensure nonprofits will be able to persist.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.14	Grant Guidelines that Support Partnerships	State agencies and private foundations funding watershed projects	Improve coordination Build capacity	7.4.2.3

Description

Public agencies surveyed for this project stated that partnerships were often the most effective way to address watershed issues. Besides convening watershed meetings to facilitate regional cooperation, state agencies and private foundations currently supporting projects in the Schuylkill River watershed can drive cooperation and efficiency within the watershed by including written, formalized criteria in grant guidelines, giving preference to proposals that establish real, working relationships or partnerships among watershed groups.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.15	Streamlined Grant Application Process	State agencies funding watershed projects	Improve coordination Build capacity	General 7.3.2.2

Description

The Nonprofit Survey revealed that many groups need more funding but have difficulty fundraising due to staff size and time limitations. To facilitate nonprofit funding, increase project proposals/grant applications and to maximize state funding sources, state grant programs should coordinate grant deadlines and application forms where possible. Streamlining the grant application process would improve nonprofit access to state resources and maximize funding resources across agencies. This process, which may vary significantly from one agency to another, currently is prohibitively complex and time-intensive, particularly for smaller grassroots organizations. Developing a common application, and if possible, common deadlines across different agencies would improve the grantmaking process for nonprofits and agencies alike. Additionally, streamlining the fundraising effort will lead to a greater number and diversity of applications, thereby maximizing funding resources. A group of private foundations making grants to the watershed community already have streamlined their application process via a common application through the Delaware Valley Grantmakers, as the first step toward facilitating watershed funding. However, these groups do not yet observe a common set of criteria for making grant decisions, nor do they follow a common deadline for application and grant approval. Ideally both the state and private grant-making process should be streamlined.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.16	Use Innovative Land Protection Mechanisms	Watershed nonprofits and agencies involved in land protection	Improve coordination Resource management Strategic conservation	General 7.3.2.2

Description

Nonprofits and agencies can increase their funding base and conservation potential by using innovative land conservation and funding mechanisms. Numerous bond initiatives were passed through the nation in 1999 and 2000, some of which supplied essential funds for land acquisition or other conservation initiatives. The Public Agency Survey found that only 3% of public agencies have used bond funding to support their programs. Experienced nonprofits and other agencies could share information and technical assistance on innovative funding sources such as bond initiatives, and land protection mechanisms such as conservation easements and purchase or transfer of development rights. In addition, heritage projects that conserve historical, cultural, and agricultural features may serve as buffers or connectors for conservation lands, and contribute to landscape sustainability.

Innovative land protection mechanisms might be shared among nonprofits and public agencies through topical watershed meetings, through the watershed clearinghouse, or other existing communication media and networks (see

Recommendations **R7.2**, **R7.7** and **R7.10**). Professional training programs should provide information on how to use these tools for conservation. Some existing training opportunities, such as those provided through the Land Conservation Leadership Program, already offer “how to” courses on these subjects.

See also **Sections 6.9** and **6.10** for an in-depth discussion of some innovative implementation tools and assessment methods for watershed conservation and management.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.17	Re-poll Watershed Community	Schuylkill River watershed public	Public awareness	General

Description

The public opinion poll conducted by The Conservation Fund showed the need for outreach to enhance public awareness about watershed address and watershed issues. Re-polling the watershed community at established time periods provides a measure of success for watershed action and management. It also provides critical information about watershed use by local citizens, and trends in demography that will affect future watershed health.

The opinion poll should survey a statistical sample of the Schuylkill River watershed population. This population should be determined using the most recent census data available. Polling questions should be oriented more towards watershed conservation issues and assessing the environmental awareness of watershed citizens.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.18	Coordinate Planning Efforts	Watershed-wide, all levels of government planning	Improve coordination Plan implementation Strategic conservation	General

Description

As learned through this planning process, many other municipal, county, regional and subwatershed plans are underway or have been completed. One outstanding issue is the need to better coordinate these various planning efforts to ensure that the funding from the state and other agencies/foundations is well spent. Improved coordination means improved communication between local governments, nonprofits and all entities connected with the planning processes.

All planning efforts should be coordinated to ensure consistency among recommendations at all levels of government and nonprofit activity, and to ensure efficient use of funding, not duplication of efforts. For example, River Conservation Plans need to be coordinated with county plans, regional comprehensive plans and even the Municipal Planning Code. Entities involved in completing these plans, such as nonprofit groups, county planning commissions and municipalities, need to communicate concerning priorities and goals.

Please refer to **Section 3.6.1** for a brief discussion of other River Conservation Plans and ongoing regional planning efforts in the Schuylkill River watershed.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.19	Fund an Outreach & Adoption Phase to Ensure Plan Implementation	Watershed County Planning Commissions, in conjunction with other watershed stakeholders, nonprofits and government agencies	Resource management Strategic conservation Plan implementation	General

Description

To ensure implementation of the Schuylkill Watershed Conservation Plan, an outreach phase needs to be funded to educate interested stakeholders about the Plan, how to interpret and use the data and how to incorporate the data into local ordinances, etc. The River Conservation Program, administered by PA DCNR, provides some financial incentives to municipalities to implement the recommendations in this document, by allowing them to apply for matching funds for implementation projects. The online Reference Document [Potential Implementation Projects](#) includes a list of suggested projects for implementing this Schuylkill Watershed Conservation Plan.

Much could be done to ensure that the recommendations from this Plan are actively adopted by government agencies across the watershed. The Plan recommendations and GIS mapping relevant to each municipality should be provided in a user-friendly manner so that they can be incorporated into local zoning codes and ordinances. Municipalities, County Planning Commissions and state agencies in the watershed need to be made aware of how they can modify their plans, zoning ordinances and funding programs to support implementation of this Plan. This would guarantee a “first line of defense” at the municipal level where, due to the requirements of the Municipal Planning Code, many of the day-to-day decisions about land use are made. Besides educating government entities in order to implement the Plan, nonprofit stakeholders need to understand the Plan.

Since Berks, Montgomery and Schuylkill Counties are almost wholly within the Schuylkill River watershed, it seems logical for these County Planning Commissions to spearhead the development of a task force to foster adoption of the Plan by the municipalities under their jurisdiction. These organizations could facilitate the integration of Plan recommendations by ensuring compliance in County plans, and assisting municipalities in their jurisdiction with adoption of these recommendations. The other watershed counties also should be invited to join the task force to foster adoption of the Plan by municipalities in their jurisdiction. Watershed nonprofits should assist as necessary.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.20	Hold Annual or Bi-annual Watershed Summit	Watershed stakeholders from government, private and nonprofit sectors and citizens	Improve coordination Public awareness Plan implementation	General

Description

An annual or bi-annual watershed summit of stakeholders would facilitate networking, discussion of major activities, demonstration projects and plan implementation to achieve broad-based cohesiveness among groups and coordination of activities. The summit should include all stakeholders cutting across sectors, expertise to draw in private founders, nonprofit groups, businesses, and government entities. Through these large meetings, broad watershed goals can be discussed and agreed upon.

The Schuylkill Riverkeeper Program has an established annual water monitoring congress that could be expanded to include a one-day agenda dedicated to environmental professionals operating in the watershed.

<i>Code</i>	<i>Recommendation</i>	<i>Priority Areas or Institutions</i>	<i>Issues Addressed</i>	<i>Sections</i>
R7.21	Schuylkill River Watershed Conservation Coordinator	Nonprofit or state agencies, watershed-wide	Improve coordination Public awareness Plan implementation	General

Description

A Schuylkill River Watershed Conservation Coordinator should be funded through one of the local nonprofits or state agencies to work with nonprofits and government entities to implement the plan. The Conservation

Coordinator could be the person who would conduct the outreach and education activities discussed in Recommendation **R7.19** above. Additionally, there is a real need to coordinate the many other existing plans, such as other river conservation plans, watershed rapid assessment programs, and so on. Besides promoting the implementation of the Schuylkill Watershed Conservation Plan, the Conservation Coordinator should promote implementation and coordination of other existing plans.

7.6 References

Delaware Estuary Program. September 1996. The Delaware Estuary Plan: Comprehensive Conservation and Management Plan for the Delaware Estuary. Available by calling the Delaware Estuary Program at 1-800-445-4935; or online at: <http://www.delep.org>.

United States General Accounting Office. March 2000. Water Quality: Key EPA and State Decisions Limited by Inconsistent and Incomplete Data. Report to the Chairman, Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure, House of Representatives (GAO/RCED-00-54). Available online at: <http://www.gao.org>.