
APPENDIX B
Management and Regulatory Programs

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MANAGEMENT AND REGULATORY PROGRAMS

Appendix B describes the management and regulatory programs of the federal government, the Commission, and state and local governments that provide a framework for the management of those groundwater resources. The important role of watershed organizations also is discussed. There are long-standing and diverse authorities that require the states, local jurisdictions, and federal government to manage, regulate, and protect various elements of groundwater resources. The key federal and state agencies with groundwater responsibilities are listed below, and contact information for each agency is available at the end of this appendix.

Federal Government	--	United States Geological Survey
	--	United States Environmental Protection Agency
	--	United States Army Corps of Engineers
	--	United States Fish and Wildlife Service
	--	Natural Resources Conservation Service
New York	--	Department of Environmental Conservation
	--	Department of Health
Pennsylvania	--	Department of Environmental Protection
	--	Department of Conservation and Natural Resources
Maryland	--	Department of the Environment
	--	Department of Natural Resources

In addition, local jurisdictions and watershed organizations play important roles in groundwater issues.

The purpose of the following section is to describe the existing management framework and the integration of regulatory and management activities for groundwater resources among the Commission, its member jurisdictions, the federal government, and local interests.

Federal Government

United States Geological Survey (USGS). The USGS has an important, and somewhat unique, role in groundwater, given its expertise in groundwater science and the depth and breadth of groundwater data. The USGS collects data and maintains databases on streamflow from its stream gaging network, groundwater levels from its monitoring well network, and ambient water quality. The USGS provides the science that sets the standards in monitoring, management, and data gathering and presentation.

The USGS manages a network of observation wells in the basin, in conjunction with New York, Pennsylvania, and Maryland. Data generated from these wells, like the stream gaging data, are available on-line (although not on a real-time basis for all wells) and are published annually in its series of Water Resource Data Reports. Pennsylvania is currently working with the USGS to revise its groundwater monitoring program to collect better data across the state, which will eventually translate into more groundwater data for the Susquehanna Basin. The USGS cooperates with the states in performing areal groundwater resource investigations and mapping bedrock throughout the basin. Local governments also have cooperated with the USGS in groundwater projects.

The network of stream gages in the basin managed by USGS are critical to surface water data collection and analyses. The knowledge of groundwater and surface water interaction requires good data.

The need for an effective network of existing stream gages, plus new ones where needed, cannot be overstated.

United States Environmental Protection Agency (USEPA). The USEPA is empowered by a variety of federal laws to regulate activities that have the potential to pollute either surface water or groundwater. Additionally, the USEPA oversees the remediation of pollution sites when no responsible party can be identified. In many instances, the states within the basin have accepted primacy over the federal programs and, thus, provide the actual implementation of remediation programs.

The principle federal regulatory program relating to groundwater is the Safe Drinking Water Act (SDWA) of 1974 (authorized by P.L. 93-523 and P.L. 99-339). The SDWA authorizes USEPA to set maximum contaminant levels and monitoring requirements for public water supply systems. All of the member jurisdictions of the Commission have assumed primacy for this program. The act provides for “sole source” drinking water aquifers, source funding for state programs of public water supply regulation, and the authorization for states to develop wellhead protection programs.

SDWA also instructed USEPA to set up a program to prevent contamination of underground sources of drinking water by underground injection of contaminants, called the Underground Injection Control (UIC) Program. The USEPA directly implements the UIC program in New York, Pennsylvania, and Maryland.

The USEPA leads the federal government's participation in the Chesapeake Bay Program, a federal-state-local partnership that directs and conducts the restoration of the Chesapeake Bay. Groundwater resources are one aspect of this large restoration effort.

USEPA, under its Section 106 Program and others, funds groundwater initiatives of the Commission and its member jurisdictions through grants.

United States Fish and Wildlife Service (USFWS). The USFWS is involved in the protection of the groundwater resources of the basin through its protection of federally listed, proposed, and candidate species under the jurisdiction of the Endangered Species Act of 1973. Wetlands associated with groundwater discharges provide very unique habitats that serve as breeding, supporting, and forage grounds for federally protected species, such as the bog turtle (*Clemmys muhlenbergii*), Bald Eagle (*Haliaeetus leucocephalus*), and Northern bulrush (*Scirpus ancistrochaetus*). When proposed development and withdrawals by projects have the potential to impact groundwater resources, the USFWS cooperates in performing investigations for threatened and endangered species under its protection. The USFWS provides recommendations for mitigation and protection that are critical for resource protection, particularly if groundwater may be intercepted or the flow system altered in and adjacent to sensitive aquatic habitats.

United States Army Corps of Engineers (USACE). Although not its primary mission, the USACE participates in various studies related to groundwater resources. Under authorities such as Section 22 of the Water Resources Development Act of 1974, the USACE can provide technical and planning assistance for water resources. A current example of this technical groundwater assessment to the Commonwealth of Pennsylvania is found in the Swatara Creek Water Supply Study.

Susquehanna River Basin Commission

The primary responsibility for managing the waters of the Susquehanna River Basin falls on the three states in the Commission—New York, Pennsylvania, and Maryland. The Compact recognizes the powers and duties of the states. Each Compact state has varying levels of water management authority

and regulations. The Commission addresses some of the groundwater management and regulatory gaps that exist among the states' programs.

A critical part of the Commission's mission, as reflected in the 1971 Compact, is the achievement of a balance among environmental, human, and economic needs in the management of the basin's water resources. This is done by careful consideration of a wide range of factors, including the fundamental need for and benefits of economic growth, water resource sustainability, protection of existing users, adverse environmental impacts, actions to minimize or mitigate impacts, protection of high quality water from degradation, effective interagency coordination, and public understanding of groundwater issues.

The Commission carries out its coordination role by:

1. Utilizing the powers vested in the commissioners through the Compact and the respective state water management agencies; and
2. Applying the standards in the Commission's *Comprehensive Plan for the Management and Development of the Water Resources of the Basin* (1987).

To ensure that the requirements under the Compact and the Commission's Comprehensive Plan are being met basinwide, the Commission is authorized by the Compact to assume responsibility in any matter affecting water resources when a Compact state is unable to do so. The Commission can assume that responsibility until the state has the proper regulatory authority or is willing to carry out the water management requirements. The preparation of this Groundwater Management Plan is a good example of the Commission's management and coordination role.

Project Review Program. Section 1.1 of this plan discusses the regulatory basis for the Commission's Project Review Program. The main purposes of the Commission's regulations are to:

- Manage water as a sustainable/renewable resource;
- Avoid conflicts among water users;
- Protect public health, safety, and welfare;
- Foster economic development; and
- Protect fisheries, aquatic habitat, and the environment.

Prior to the previously mentioned dates for each regulation, the Commission recognizes documented water use as being “grandfathered.” However, any withdrawal increases above the “grandfathered” quantity in excess of 100,000 gpd, or 20,000 gpd consumptively, are regulated.

As part of the application approval process, the Commission may limit the amount (quantity and rate) of water withdrawn by the project sponsor to the amount required to meet reasonably foreseeable needs. An application may be denied, or special conditions added to an approval—referred to as a “docket”—if the Commission determines that the new withdrawal would not be sustainable, significantly affect or interfere with an existing water user, or impact important environmental resources. Special conditions can include water level monitoring, allowing for passby flows, or requiring the project sponsor to provide a replacement water supply—at the project sponsor's expense. When a docket is approved, the user is required, by the regulation, to meter, monitor, and periodically report the operation's water usage. Compliance with these conditions, and any other conditions of approval, are subject to enforcement actions by the Commission.

The Commission staff conducts an independent review of project applications, and the Commission coordinates its actions on projects involving public water supplies with the regulatory

agencies of the member jurisdictions, including NYSDEC, PADEP, and MDE. Coordination with these agencies ensures that all issues and concerns are resolved prior to Commission action. When a state's regulatory agency or any political subdivision of the agency (i.e., local government) having jurisdiction over the project denies or otherwise disapproves an aspect of the project, the Commission will suspend its review for up to three years (pending final resolution) or terminate its review.

In recognition of the economic burden that compensation for consumptive water use imposed on individual farmers, the Commission's consumptive use regulation has been suspended from application to the agricultural industry since 1992. This suspension is intended to remain in effect until a long-term solution to the consumptive water needs of agriculture in the basin can be implemented. See the discussion of special studies in this section of the plan for information on a Commission effort to evaluate alternative solutions for Pennsylvania.

Groundwater Quality Coordination. Article 5, Section 5.2(b), of the Compact emphasizes the primary role of the member jurisdictions in water quality management and control. The Commission can impose its own standards only if the member jurisdictions fail to achieve the basic requirements of the Commission's Comprehensive Plan. However, the Commission ordinarily acts in an advisory capacity in matters related to groundwater quality, and performs some grant-funded work related to groundwater quality. To enhance coordination efforts, the Commission holds regular meetings twice a year with member jurisdictions through its Water Quality Advisory Committee.

With respect to its regulatory function, the Commission conducts an environmental screening as part of its Project Review Program. Through this effort, the Commission coordinates extensively with appropriate agencies concerning water quality issues. In addition, the Watershed Assessment and Protection Division is involved in a number of basinwide efforts to address pollution associated with AMD, agricultural, and urban-related sources.

Watershed Studies, Special Studies, and Water Budget Analyses. In practice, the Commission's Comprehensive Plan and regulations form the basis for the groundwater management activities of the Commission. On an occasional basis, as resources (financial and staff) become available, the Commission has developed and participated in various studies related to groundwater resources. These include local and regional resource appraisals and water resource management plans.

The resource evaluations commonly include water budgets, an accounting of the water resources of an area (a watershed or part of a watershed). A water budget is used to evaluate the quantity of groundwater resources available for development, and for planning for future needs.

In the early 1980s, the Commission completed or assisted in the completion of resource appraisals, including water budgets for various areas, as part of its special groundwater study. The Commission provided technical assistance to the Spring Creek Watershed Study (Taylor, 1997), through its work on the water budget. The Commission also has studied the Hazleton area (the Jeddo Mine Drainage Tunnel) (Hollowell, 1999). Current examples of watershed studies include the Swatara Creek Watershed Water Supply Study (United States Army Corps of Engineers, 2003) and the northern Lancaster County Water Budget Study.

Currently, Commission staff is conducting a special study of alternative management options for both surface water and groundwater to address agricultural consumptive use in the Susquehanna River Basin in Pennsylvania. The study is being funded by the Commonwealth of Pennsylvania, and its objective is to develop reasonable and sustainable solutions to compensate, to the fullest extent practicable, for the impacts of agricultural consumptive use during drought periods. The Commission

will consider the results of the special study and decide if they need to be incorporated into ongoing Commission programs.

While there are other opportunities and needs for groundwater studies, the Commission's ability to take on additional studies is limited by available staff resources.

Protected Areas. Section 11.2 of the Compact describes the determination and delineation of areas in the basin where the demands upon supply made by users have developed or have threatened to develop to such a degree as to create a water shortage. In these so called "protected areas," the Commission may regulate diversions or withdrawals of water for domestic, municipal, agricultural, or industrial uses. To date, the Commission has not exercised its authority in these matters.

Groundwater Management Plan. The Commission has been involved in the evaluation and management of groundwater since it was established in 1971. Initially, groundwater activities were guided by the general references about groundwater in the Commission's Comprehensive Plan. Then, in 1993, the Commission prepared its first Groundwater Management Plan to supplement the Comprehensive Plan by providing detailed recommendations for the management of the basin's groundwater resources.

New York State

New York State Department of Environmental Conservation (NYSDEC). Within NYSDEC, the Division of Water (DOW) has primary responsibility for management and regulation of groundwater resources in New York State.

DOW issues permits for all takings for public water supply, from groundwater or surface water sources. As part of this process, the project sponsor must provide data that the supply is adequate and necessary, and that the taking is equitable to nearby municipalities in regard to their present and future water resource needs.

In 1999, New York amended the Environmental Conservation Law (1972) to include Section 15-1525 entitled, "Water well drillers in New York state to obtain certificates of registration." Water well driller registration (certification) is required statewide. Detailed water well completion information is submitted for use in groundwater resource evaluation and development of a database. Other requirements of the law are to be more fully addressed in regulations prepared by NYSDOH.

The DOW has several ongoing programs relating to the management and protection of groundwater. The DOW, in partnership with the USGS, conducts statewide aquifer mapping to obtain information on significant water-bearing formations. The information from this activity is available in several formats, including print, CD-ROM, and on-line. The DOW also issues permits for discharges of wastewater, and stormwater, to surface water and groundwater, ensuring that the discharges are consistent with effluent limitations and water quality standards. The DOW also works closely with local governments and supports their efforts to implement nonpoint source control and groundwater resource protection programs.

Other programs affecting groundwater management and regulation include NYSDEC's Divisions of Environmental Remediation, Mineral Resources, and Solid and Hazardous Materials.

New York State Department of Health (NYSDOH). The NYSDOH is responsible for protecting public health and assuring the potability of drinking water supplies for the state's citizens. Water that has been withdrawn by public water suppliers for distribution to the consumer is regulated by the NYSDOH.

The NYSDOH reviews public water supply facility design and construction and requires periodic monitoring of the quality of water delivered to the tap. The NYSDOH provides emergency response to water supply systems experiencing critical water quality or quantity problems. Establishment of state drinking water standards and enforcement of both state and federal drinking water standards are tasks performed by the NYSDOH.

County Health Agencies. Six counties within the Susquehanna River Basin are served by county health departments: Allegany, Chemung, Broome, Tioga, Tompkins, and Cortland Counties. These agencies help administer, through delegation, major elements of state level NYSDEC and NYSDOH programs for water pollution control and water supply regulation.

Commonwealth of Pennsylvania

Pennsylvania Department of Environmental Protection (PADEP). The PADEP was created to promote compliance with environmental regulations using a partnership approach. PADEP conducts many groundwater management activities, most of which relate to groundwater pollution and quality. Almost all PADEP permits are issued through the agency's six regional offices or six district mining offices. Program support is provided by the central office bureaus, as described below.

Public groundwater supplies are regulated and monitored by field staff assigned to the Water Supply Management (WSM) Program, under the guidance of the central office Bureau of Water Supply and Wastewater Management. Although primarily concerned with the potability of the water, PADEP regulations also deal with source quantity requirements and effects of a water withdrawal on other resources protected by laws administered by the PADEP¹. WSM field staff specify maximum pumping rates for public water supply wells in permits that are issued, because maximum pumping rate is a basic parameter for design of water treatment facilities. The maximum permissible pumping rate, which is primarily determined by extended duration pump testing, is also the largest rate that PADEP determines can be withdrawn without causing an undesired result, such as dewatering of an aquifer. WSM field staff also respond to complaints and checks various chemical parameters associated with domestic water supplies.

Pennsylvania's Wellhead Protection Program was submitted to USEPA in March 1998 and approved by USEPA in March 1999. It serves as the cornerstone of the Source Water Assessment and Protection Program, which is administered by the central office Bureau of Watershed Management and the regional offices. This bureau and the regions also manage and carry out an Ambient Groundwater Monitoring Network Program.

Under the guidance of the Bureau of Watershed Management, the WSM field staff also issues surface water allocation permits to public water suppliers that withdraw surface waters. The Bureau of Watershed Management also is responsible for comprehensive water resource planning for the Commonwealth (State Water Plan).

The Bureau of Water Supply and Wastewater Management regulates sewage disposal by both on-lot and community systems, spray irrigation, underground injection of wastes, surface impoundments (nonhazardous waste), and underground storage tanks. This bureau responds to miscellaneous groundwater pollution incidents, including hydrocarbon spills, and those resulting from the areal

¹ Oley Township v. PADEP and Wissahickon Spring Water, Inc. 1996 EHB 1098 (October 24, 1996).

application of agricultural fertilizers and pesticides. There are no groundwater uses or standards set by regulation in Pennsylvania.

Solid waste is regulated by the Bureau of Waste Management. All facilities for the storage, treatment, and disposal of municipal, residual, or hazardous waste are permitted, including, but not limited to, landfills, incinerators, and land application sites. Storage and treatment facilities also pose a potential threat to the groundwater, and also are permitted by this bureau.

The Bureau of Mining and Reclamation and the district mining offices permit surface mines, deep mines, coal preparation plants, coal refuse disposal sites, and insures regulatory compliance of all permitted activities. District mining offices are charged with monitoring of groundwater quality around all regulated activities, and protecting the yield of groundwater sources (wells and springs) from being severely diminished as a result of surface mining activities. Impoundments associated with surface and deep mining activities also are regulated by district mining offices. The Bureau of Mining and Reclamation licenses mine operators.

The Bureau of Oil and Gas Management and the regional offices protect groundwater through programs that regulate the casing of wells through the potable groundwater zone, well plugging, waste disposal, and injection wells (both disposal and enhanced recovery).

Pennsylvania Department of Conservation and Natural Resources (PADCNR). The Bureau of Topographic and Geologic Survey conducts groundwater studies, some in cooperation with the USGS. This bureau administers the Water Well Drillers License Act 610, which is solely a mechanism to obtain groundwater and subsurface data. This bureau maintains both analog and computerized inventories of water well records (Pennsylvania GWIS) based on drillers' completion reports. Webdriller is a voluntary mechanism to capture water-well drillers' data digitally and to improve the accuracy of well location data. There are no regulations for private water well location or construction in Pennsylvania.

State of Maryland

Maryland Department of the Environment (MDE) The Water Management Administration (WMA), through its Water Rights Division (WRD), has the responsibility for issuing "groundwater appropriation permits" for most new uses of groundwater (either from wells or springs). Permits are not required for wells drilled for domestic use, other than for heating and cooling, and the permit is voluntary for agricultural wells producing less than 10,000 gpd.

Proposed withdrawals from wells or springs are reviewed for effect on surface water, other users (well interference), and the aquifer. Withdrawals are limited to the "sustained yield" of the aquifer.

The WRD may require an "aquifer yield test" for some projects. The project sponsor has the responsibility to analyze the test data to address such issues as: (1) determining aquifer hydraulic characteristics; (2) establishing long-term well yield and projected drawdown in the pumping well; (3) making time/distance-drawdown projections in affected aquifers; and (4) evaluating the potential for saltwater intrusion or other groundwater contamination. The project sponsor must collect a sample for water quality during the final hour of pumping.

Permittees with an average water use of 10,000 gpd, or greater, must submit reports of monthly water use twice a year. The permit is in force for up to 12 years, and is reviewed every 3 years to insure that the water appropriated is being used in conformance with the permit.

The Planning and Engineering Section of the WRD analyzes the area-wide effects of collective water appropriations in view of a region's future water supply and demand. If problems are identified, the section formulates management alternatives to resolve them.

The MDE has the primary responsibility for protecting groundwater quality from contamination caused by human activities. The agency administers several programs regarding groundwater quality.

The WMA, through the Water Supply Program (WSP), is responsible for implementing the SDWA. Most of the WSP activities relate to the quality of finished potable water.

The WSP also has the responsibility for administering Maryland's Wellhead Protection Program. WSP's role includes developing the program, organizing citizen participation, and providing technical assistance to local governments and public water supply system owners. The individual public water supply system owners are responsible for delineating their wellhead protection areas.

Well construction regulations are enforced by the Groundwater Permits Program within WMA, in coordination with county health departments. The Water Quality Infrastructure Program has the responsibility for reviewing and approving of comprehensive water and sewerage plans prepared by each county.

The Waste Management Administration permits and monitors municipal waste landfills, sewage sludge application sites, sites used for the disposal of hazardous wastes, environmental restoration, and oil control.

The Water and Wetlands and Waterways, and Minerals, Gas, and Oil Programs of the WMA are responsible for developing, managing, conserving, and protecting the state's water and mineral resources. Policies are implemented through the issuance and enforcement of permits for groundwater and surface water appropriation, surface mining, gas and oil exploration and production, waterway construction, and tidal and nontidal wetlands development.

Maryland Department of Natural Resources (MDNR). The Hydrogeology and Hydrology Program of the Maryland Geological Survey is responsible for the maintenance of a statewide water-data network, and the investigation of the hydrologic and geologic characteristics of Maryland's water resources. The groundwater-data network provides information on water levels and ambient water quality in selected wells throughout the state, and measures the effects of long-term changes in pumpage, land use patterns, and precipitation.

County Health Departments. The MDE has delegated several important groundwater management activities to local health officers. These include overseeing the siting of private wells and septic systems, insuring adequate quantity and quality of well water for both new dwellings and those changing ownership, reviewing subdivision plans concerning environmental impacts, sampling monitoring wells at sanitary landfills, and sampling private wells, upon owner request, for bacterial and chemical quality.

Local Governments

Within the basin, there are several forms of local government, including counties, cities, townships, boroughs, towns, villages, and authorities. These include a total of about 1,350 municipalities. Within this complex and multilayered network of regulatory bodies lies the control of land use, land development, stormwater management, and several aspects of water resource management and use. One of the purposes of the Susquehanna River Basin Compact is to apply the principle of uniform treatment to

all users of water, without regard to political boundaries. Applying this principle of uniform treatment of water users within this local government network is challenging.

Because of the interrelationship between economic development and the availability of an adequate water supply, local governments have the responsibility to both promote and protect the integrity of the resource, including the groundwater component. Municipalities must plan for and accommodate different types of land uses and their water demands within their respective municipal boundaries.

Stormwater management and water resource planning and use are best addressed through multi-jurisdictional coordination or on a watershed basis. Watershed boundaries and groundwater basins, or aquifers, do not usually coincide with a single municipal boundary. A municipality that is a good steward of a resource may be juxtaposed with municipal neighbors that are not. The consequences are that the benefits derived from the stewardship could be exploited by the neighbors, leading to a competition by the good steward to exploit its own resource. The end result is that the resource is depleted, and any economic gains are short-lived or unsustainable.

It is, therefore, incumbent upon local governments to become advocates for the control of land use policies that foster prudent resource protection and development through the variety of legal tools available.

The framers of the Compact recognized the problem of too many government agencies attempting to manage the waters of the Susquehanna. Duplicative, overlapping, and uncoordinated activities were resulting in a splintering of authority and responsibility in the basin. To prevent this splintering, the framers concluded in the Compact that “a single administrative agency is essential for effective and economical direction, supervision, and coordination of water resources efforts and programs of federal, state, and local governments and of private enterprise.” The Commission is that single agency.

The Commission's groundwater regulations preempt local groundwater regulations for projects that meet the Commission's criteria as large water users, and provide a basis for managing water regionally as a shared resource. In combination with the special conditions it places on projects, they provide the necessary safeguards to protect adjoining well owners.

That notwithstanding, local governments are a valuable part of the groundwater resource management picture. Municipalities and counties are notified of project applications (as required by regulation), and the Commission, in its decision-making, carefully weighs any comments they submit. Local governments can exert control over many projects and activities through resource planning, land use controls, and zoning ordinances.

Watershed Organizations

Although the number of associations varies, currently there are 187 watershed and lake associations in the Susquehanna River Basin Commission's database (Figure B.1). These grassroots organizations can be a powerful force in setting priorities on the public agenda. Not only are watershed organizations capable of motivating members of the general public to seek solutions for water resource problems and issues, but they also can conduct grant-funded studies and research, such as watershed assessment planning, watershed restoration and protection activities, and participate in local education and environmental planning with local governments. Land trusts, although not exclusively linked to watershed organizations, can play a special role in local land use issues, including developing and implementing watershed conservation plans and strategies, identifying critical habitats and parcels within

watersheds, and even removing land from development pressures through acquisitions and conservation easements.

In addition to the grass-roots organizations described above, state rural water associations (New York, Pennsylvania, and Maryland) are not-for-profit organizations that promote the development, improvement, and sound operation of rural drinking water and wastewater systems. These organizations promote the effective exchange of knowledge among systems, and serve as liaisons among the government, public, and rural water and wastewater systems.

State rural water associations hold a variety of training programs and offer on-site assistance in areas of management compliance, operation, maintenance, finance, and governance. The training sessions for water and wastewater industry professionals allow system operators, managers, and elected officials to upgrade their skills, improve the quality of their utility's service, and protect their users' health. On-site, hands-on technical assistance to rural and small community water and wastewater systems is commonly free to association members.

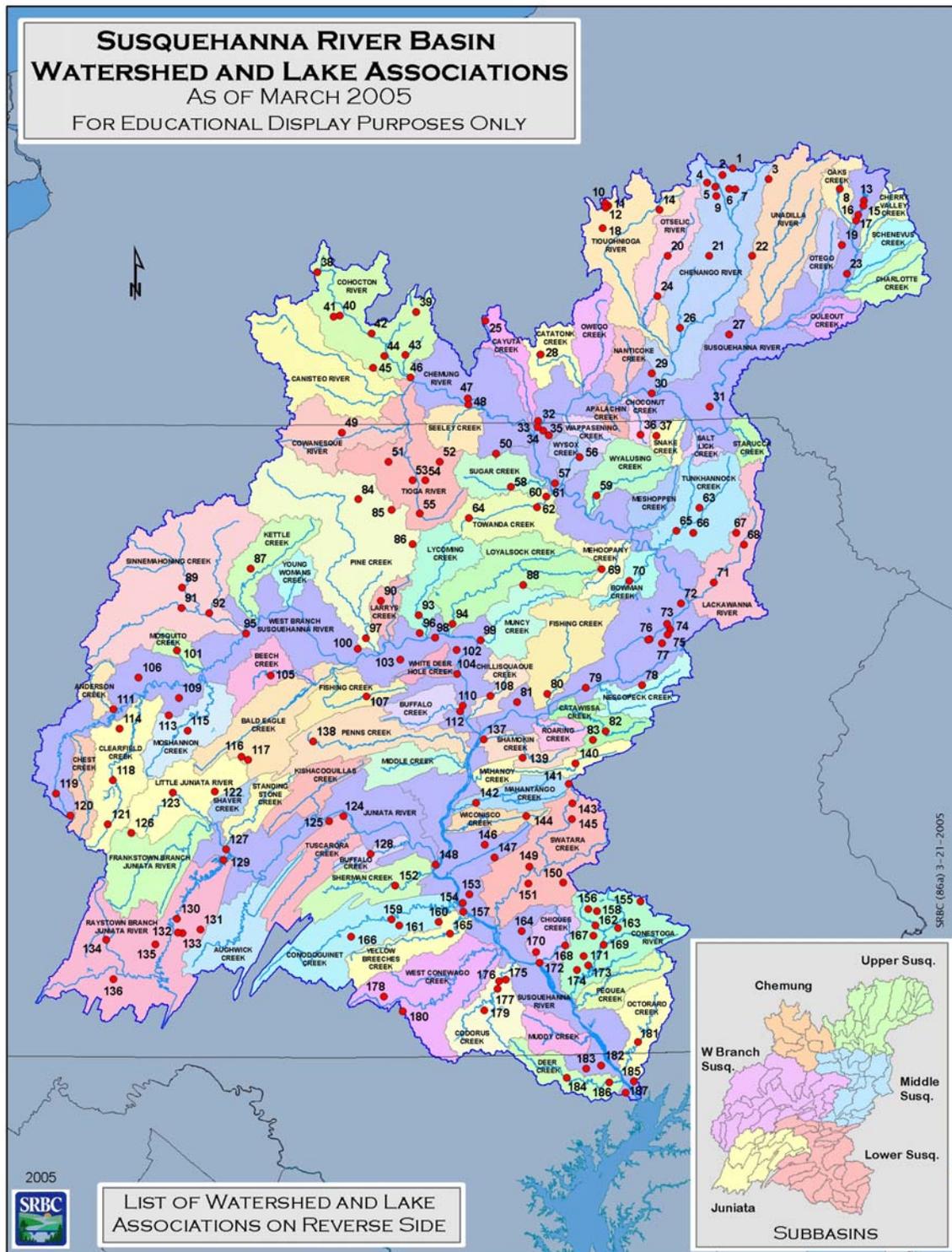


Figure B.1. Watershed and Lake Associations in the Susquehanna River Basin
(See next page for list of associations.)

Table B.1. Susquehanna River Basin Watershed and Lake Associations

March 2005

Please note that the map points are spatially depicted in a north-to-south orientation

Upper Susquehanna Subbasin	Association	125 Juniata Valley PaSEC
1 Madison Lake Association	66 Lake Sheridan Tarn Watch	126 Blair County PaSEC
2 Leland Pond Betterment Association	67 Newton Lake Watershed Association	127 Juniata Clean Water Partnership
3 Gorton Lake Association	68 Lackawanna River Corridor Association	128 Buffalo Creek Watershed Alliance
4 Eatonbrook Reservoir Association	69 Mehoopany Creek Watershed Association	129 Friends of Raystown Lake
5 Lake Moraine Association	70 Bowmans Creek Watershed Association	130 Shoups Run Watershed Association
6 Lake Craine Lot Owners Association	71 Lackawanna County PaSEC	131 Trough Creek Watershed Association
7 Tuscarora Lake Association	72 Hicks Creek Watershed Association	132 Broad Top Twp./Coaldale Borough Watershed Committee
8 Canadarago Lake Association	73 Eastern Pennsylvania Coalition for Abandoned Mine Reclamation	133 Six Mile Run Area Watershed Committee
9 Lebanon Reservoir Association	74 Luzerne-Wyoming County PaSEC	134 Bob's Creek Stream Guardians
10 Crooked Lake Home Owners Association	75 Wyoming Valley Watershed Coalition	135 Yellow Creek Coalition
11 Tully Lake Property Owners Association	76 Nanticoke Conservation Club	136 Southern Alleghenies Conservancy
12 Song Lake Association	77 Earth Conservancy	Lower Susquehanna Subbasin
13 Otsego Lake Association	78 Friends of the Nescopeck	137 Little Shamokin Creek Watershed Association
14 Toughnioga Lake Association	79 Briar Creek Watershed Association	138 Penns Valley Conservation Association
15 Otsego Lake Watershed Council	80 Fishing Creek Watershed Association	139 Shamokin Creek Restoration Alliance
16 Otsego 2000	81 Mahoning Creek Watershed Association	140 Mahanoy Creek Watershed Association
17 Otsego County Conservation Association	82 Eastern Middle Anthracite Region Recovery, Inc.	141 Schuylkill County PaSEC
18 Little York Improvement Society	83 Catawissa Creek Restoration Association	142 Tri-Valley Watershed Association
19 Arnolds Lake Association	West Branch Susquehanna Subbasin	143 Northern Swatara Watershed Association
20 Otselic River Riparian Working Group	84 Pine Creek Headwaters Protection Group	144 Wiconisco Creek Restoration Association
21 Plymouth Reservoir Association	85 Babb Creek Watershed Association & Reclamation Task Force	145 Sweet Arrow Lake Conservation Association
22 Chenango Lake Property Owners Association	86 Blockhouse Creek Preservation Group	146 Powell's & Armstrong Creeks Watershed Association
23 Goodyear Lake Association	87 Kettle Creek Watershed Association	147 Stony Creek Watershed Association
24 Melody Lake Association	88 Eagles Mere Lake and Watershed Committee	148 Central Pennsylvania Conservancy
25 Cayuta Lake Property Owners Association	89 Sterling Run Watershed Association	149 Swatara Creek Watershed Association
26 Geneganslet Lake Association	90 Lawshe Run Watershed Association	150 Lebanon Valley Conservancy
27 Echo Lake Association, Inc.	91 Bennett Branch Watershed Association	151 Quittapahilla Watershed Association
28 Citizens for the Catatunk Creek	92 Bucktail Watershed Association	152 Shermans Creek Conservation Association
29 Lake Warn Association	93 Lycoming Creek Watershed Association	153 Paxton Creek Watershed and Education Association
30 Upper Susquehanna Coalition	94 Loyalsock Creek Watershed Association	154 Susquehanna River Trail Association
31 Broome County Beaver Lake Association	95 Centre County PaSEC	155 Berks County Conservancy
32 Valley Project Impact	96 North Central Pennsylvania Conservancy	156 Furnace Run/Segloch Run Watershed Alliance
33 Carantouan Greenway	97 Pine Creek Preservation Association	157 Susquehanna River Wetlands Trust
34 Upper Susquehanna Riverkeeper	98 Lycoming-Clinton PaSEC	158 Middle Creek Watershed Association
35 Satterlee Creek Watershed Association	99 Muncy Creek Watershed Association	159 Conodoguinet Creek Watershed Association
36 Choconut Creek Watershed Association	100 Chatham Run Concerned Citizens	160 Capitol Region PaSEC
37 Snake Creeks Watershed Association	101 Mosquito Creek Sportman's Watershed Association	161 LeTort Regional Authority
Chemung Subbasin	102 Black Hole Creek Watershed Association	162 Hammer Creek Watershed Association
38 Loon Lake Association	103 Greater Nippenose Valley Watershed Association	163 Save Our Creek
39 Lamoka-Waneta Lakes Association, Inc.	104 White Deer Creek Watershed Association	164 Tri-County Conewago Creek Association
40 Loucks Pond Association	105 Beech Creek Watershed Association	165 Yellow Breeches Watershed Association
41 Smith Pond Sportsmen's Association	106 Clearfield County PaSEC	166 Big Spring Watershed Association
42 Lake Salubria Association	107 Sugar Valley Watershed Association	167 Lititz Run Watershed Alliance
43 Meads Creek Watershed Association	108 Chillisquaque/Limestone Watershed Association	168 Chiques Creek Watershed Alliance
44 Tanglewood Lake Association	109 Hubler Run Watershed Association	169 Cocalico Creek Watershed Association
45 Lake Demmon Association	110 Merrill Linn Conservancy	170 Donegal Fish and Conservation Association
46 Chemung Basin River Trail Partnership	111 Anderson Creek Watershed Association	171 Lancaster County PaSEC
47 Town of Elmira Storm Water Task Force	112 Union-Snyder Counties PaSEC	172 Little Chiques Watershed Association
48 Town of Southport Drainage Committee	113 Emigh Run/ Lakeside Watershed Association	173 Lancaster County Conservancy
49 Cowanesque Valley Watershed Association	114 Little Clearfield Creek Watershed Association	174 Little Conestoga Watershed Alliance
50 Penn-York Bentley Creek Watershed Association	115 Moshannon Creek Watershed Association	175 Watershed Alliance of York County
51 Crooked Creek Coalition	116 Spring Creek Watershed Community	176 Codorus Creek Improvement Partnership
52 Mill Creek Association	117 ClearWater Conservancy	177 York County PaSEC
53 Ellen Run Watershed Projects	118 Beaverdam Branch Watershed Coalition	178 Adams County PaSEC
54 Corey Creek Watershed Association	119 West Branch Susquehanna River Rescue	179 Codorus Creek Watershed Association
55 Tioga County Concerned Citizens Committee	120 West Branch Susquehanna River Watershed Association	180 Watershed Alliance of Adams County
Middle Susquehanna Subbasin	121 Clearfield Creek Watershed Association	181 Octoraro Watershed Association
56 Wysox Creek Watershed Association	Juniata Subbasin	182 Lower Susquehanna Heritage Greenway
57 Laning Creek Watershed Association	122 Spruce Creek Watershed Association	183 Broad Creek Civic Association
58 Sugar Creek Watershed Association	123 Friends of Sinking Valley	184 Deer Creek Scenic River Advisory Board
59 Wyalusing Creek Watershed Association	124 Muddy Run Watershed Association	185 Upper Chesapeake Watershed Association
60 Stephen Foster Lake Association		186 Deer Creek Watershed Association, Inc.
61 Bradford County Lakes & Ponds Organization		187 Upper Western Shore Tributary Team
62 Schrader Creek Watershed Association		
63 Countryside Conservancy		
64 Towanda Creek Watershed Association		
65 Tunkhannock Creek Watershed		

LIST OF FEDERAL AND STATE AGENCY CONTACT INFORMATION

Susquehanna River Basin Commission

1721 North Front Street
Harrisburg, PA 17102
Phone 717-238-0423
Fax 717-238-2436
Email srbc@srbc.net
Website <http://www.srbc.net>

Federal Government

United States Geological Survey

New York Office
Water Resources Division
425 Jordan Road
Troy, NY 12180-8349
Phone 518-285-5600
Fax 518-285-5601
Information Request (518) 285-5602
Email askny@usgs.gov
Website <http://ny.water.usgs.gov/index.html>

Pennsylvania Office
Water Resources Division
215 Limekiln Road
New Cumberland, PA 17070
Phone 717-730-6900
Fax 717-730-6997
Email is_pa@usgs.gov
Website <http://pa.water.usgs.gov/index.html>

Maryland Office
Water Resources Division
Water Resources for Maryland, Delaware, and the District of Columbia
8987 Yellow Brick Road
Baltimore, MD 21237
Phone 410-238-4200
Fax 410-238-4210
Website <http://md.water.usgs.gov/>

United States Environmental Protection Agency

USEPA Region 2 (New York)
290 Broadway
New York, NY 10007-1866
Phone 212-637-5000
Website <http://www.epa.gov/Region2/>

USEPA Region 3 (Maryland/Pennsylvania)
1650 Arch Street (3PM52)
Philadelphia, PA 19103-2029
Phone 800-438-2474
Website <http://www.epa.gov/region03/index.htm>

United States Army Corps of Engineers

Baltimore District
10 South Howard Street
Baltimore, MD 21201
Phone 410-962-7608
Website <http://www.nab.usace.army.mil/>

United States Fish and Wildlife Service

Susquehanna River Coordinator
P.O. Box 67000
1601 Elmerton Avenue
Harrisburg, PA 17106-7000
Phone 717-705-7838
Fax 717-705-7901
Email FW5FR_SRC@fws.gov
Website <http://northeast.fws.gov/index.html>

Natural Resources Conservation Service

New York Office
USDA NRCS
441 South Salina Street, Suite 354
The Galleries of Syracuse
Syracuse, NY 13202
Phone 315-477-6504
Website <http://www.ny.nrcs.usda.gov/>

Pennsylvania Office
USDA-NRCS Credit Union Place
Suite 340
Harrisburg, PA 17110-2993
Phone 717-237-2100
Fax 717-237-2238
Website <http://www.pa.nrcs.usda.gov/>

Maryland Office
USDA-NRCS
John Hanson Business Center
339 Busch's Frontage Road, Suite 301
Annapolis, MD 21401
Phone 410-757-0861
Fax 410-757-0687
Website <http://www.md.nrcs.usda.gov/>

New York State Government

New York State Department of Environmental Conservation

625 Broadway
Albany, NY 12233
Phone 518-402-8233
Fax 518-402-9029
Email dpaeweb@gw.dec.state.ny.us
Website <http://www.dec.state.ny.us/>

New York State Department of Health

NYS DOH, BWSP
Flanigan Square
547 River Street
Troy, NY 12180
Phone within New York State 800-458-1158, extension 27650
Phone out of state at 518-402-7650
Website <http://www.health.state.ny.us/nysdoh/water/main.htm>

New York State Geological Survey

New York State Museum
The University of the State of New York
The New York State Education Department
Albany, NY 12230
Phone 518-474-5810
Website <http://www.nysm.nysed.gov/>

Pennsylvania State Government

Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17105
Phone 717-787-2814
Website <http://www.dep.state.pa.us/>

Department of Conservation and Natural Resources

Rachel Carson State Office Building
P.O. Box 8767
400 Market Street
Harrisburg, PA 17105-8767
Phone - General Information 717-787-2869
Fax 717-772-9106
Email ra-askdcnr@state.pa.us
Website <http://www.dcnr.state.pa.us/>

Bureau of Topographic and Geologic Survey

3240 Schoolhouse Road
Middletown, PA 17057
Phone 717-702-2017
Fax 717-702-2065
Website <http://www.dcnr.state.pa.us/topogeo/>

Maryland State Government

Maryland Department of the Environment

1800 Washington Boulevard
Baltimore, MD 21230
Phone 410-537-3000, or toll free 800-633-6101
Website <http://www.mde.state.md.us/>

Maryland Department of Natural Resources

580 Taylor Avenue
Tawes State Office Building
Annapolis, MD 21401
Phone toll free in Maryland at 877-620-8DNR (8367)
Phone out of state 410-260-8100
Website <http://www.dnr.state.md.us>

Maryland Geological Survey

2300 St. Paul Street
Baltimore, MD 21218
Phone 410-554-5500
Website <http://www.mgs.md.gov/>