Specific Regional Priorities

Each of Pennsylvania's major drainage basins has an array of individual characteristics that distinguish it from other regions of the state. These include diverse geographic and geologic features as well as major differences in historical settlement, economic and land use patterns. To reflect these variations, six Regional Water Resources Committees (Committees) were created by the Water Resources Planning Act to ensure that individual regional priorities were developed and highlighted in the plan. The priorities and actions of the committees are significant and influence not only local streams and rivers, but also nationally significant bodies of water including the Chesapeake Bay, the Delaware Bay, the Gulf of Mexico and the Great Lakes System.

The committee members represent a broad range of interests in their region -- business and industry, agriculture, local government and the environment. Each committee has identified and given consideration to a broad set of water resources issues and concerns specific to their region. The water resource management goals and objectives of the committees can be found on the State Water Plan website and in the Pennsylvania State Water Atlas. The top two water resource management priorities as determined by each of the six committees are highlighted below.

<u>Great Lakes</u>

- Support legislation and other measures that will protect the quantity and quality of water in Lake Erie

The Great Lakes form the largest surface freshwater system in the world. They hold the potential for massive water diversions to more arid parts of the United States or even to other water-poor countries across the globe, and they are equally attractive to industries that consume large volumes of water. Communities surrounding the Great Lakes' shores in both the United States and Canada are very much aware of these possible demands and seek to keep transfers, exports and consumption Great Lakes water to a minimum .

Lake Erie is vitally important to the prosperity northwestern Pennsylvania. It serves regional domestic, commercial and industrial needs, supplies power generation, offers world-class recreational opportunities, and provides transportation and trade access to the entire St. Lawrence Seaway. The committee has determined that its leading priority is preserving the quantity and quality of water in this valued resource. Recognizing that protection of the entire Great Lakes system is crucial to protecting Lake Erie, close coordination with the surrounding states and Canadian provinces is key to meeting this goal. The committee recommends support for the Great Lakes Annex Agreement, and state and federal legislation to accompany and support the implementation of this agreement.

- Maintain the hydrologic integrity of the region by evaluating and addressing land use changes and their effects on point and non-point source pollution, recharge, flow, and the surface and groundwater regimes and establishing the capacity to do so.

The close relationship between land use and water resource management is well known and unchallenged. However, the ability to manage land use and development to minimize their influence on natural resources is currently limited by the planning policies in this region. Municipal land use ordinances should address conservation design and additional safeguards and include incentives for developers to take this approach. Reaching out to local regulators and providing them with the tools necessary to make these important land use planning decisions is imperative. For example, composting facilities have been built that are capable of reducing nutrient loading to area waters. These should be expanded and new facilities should be considered to compost additional waste generated in the region.

Ohio

- Reclaim water resources impaired by abandoned mines

The Ohio region is rich in mineral resources. Bituminous coal has been mined in this region since 1760 when coal was first extracted from what is now Mt. Washington to be used at Fort Pitt across the Monongehela River. Mining is still an important industry in the region, and helps fuel the state and national economy. Abandoned mines and their untreated, drainage are part of the historic mining heritage and have taken a heavy toll on the water resources of this basin. To ensure an adequate and reliable supply of quality water to meet human and ecological needs, remediation of these impaired resources is a major priority for this region. The committee recommends that a full assessment of all water resources impaired by drainage from abandoned mines be conducted, and that incentives and new technologies for the mining industry and others be developed to reclaim or reuse these waters.

- Identify water resources needed to promote and facilitate economic development and provide job opportunities, while maintaining watershed integrity and recreational benefits.

The abundant supply of clean and accessible water resources in this region can be used to promote economic development and job growth while preserving and enhancing watershed integrity. This requires careful planning that begins with identifying the best-suited water resources and understanding the water needs of potential businesses, and ends with a successful matching of businesses with compatible water resource access. The committee has suggested working with water supply data, regional economic development groups, and the Southwest Pennsylvania Commission to achieve this balanced approach to support economic growth and environmental goals. Encouraging water-based recreation and tourism is also an important component of this priority. In

addition, the committee recognizes that sewage problems in the region, particularly problems caused by malfunctioning on-lot sewer systems, have the potential to impair economic development, and considers proper sewage disposal to be among the top issues to address for the Ohio basin.

Delaware

- Linking land use decisions and water resources management

Linking land use decisions and water resources management is a top priority of the committee to sustain and enhance the quality of life in the Delaware River Basin. The development and implementation of steps and approaches (including passage of legislation as appropriate) should require decision-makers at local, county, regional, and Commonwealth levels to recognize the link between land use and water resource management. These steps and approaches should further require consideration of water resources management, flood control, storm water management and sewage management in land use decisions, infrastructure funding, construction decisions, and grant decisions, so as to preserve, protect, restore, and enhance the quality, quantity, and availability of clean, sustainable water supplies for the people, businesses, and ecological needs of the Commonwealth.

- Improve management of water resources (including stormwater and wastewater) and waterway corridors to reduce damages from extreme conditions (floods and droughts)

The Delaware Basin includes both areas that are heavily populated and highly urbanized as well as areas that while currently undeveloped are experiencing rapid growth. Actions will be needed at the state, regional, county and municipal level to: manage stormwater to address the impacts of both floods and droughts and improve the quality of life in our communities; identify riparian corridors and flood plains and optimize their multiple natural benefits, including maintaining the natural functions of floodplains, wildlife and aquatic habitat, water quality and recreation; and maximize the use of water conservation techniques, including enhancing water recycling measures and promoting water supply infrastructure reliability. The capture, storage and infiltration of stormwater flows can also be used to moderate the consequences of floods and droughts.

Lower Susquehanna

- Evaluate supply and demand

The committee has identified finalizing accurate water supply and demand projections to improve the capability to plan for the social, economic, environmental and recreational needs of the Lower Susquehanna region as a leading priority. This information serves as the basis for decision making on land use planning, identifying and analyzing Critical Water Planning Areas, and better preparation in advance of extreme flood and drought conditions, among other things. Collection and dissemination of sound water budget data is a broad goal shared by other regions of the state, but it is especially important for this region because some well-known critical water needs and unique regional features (such as karst topography) influence how water resource plans in the region are designed and implemented.

- Protect "at-risk" water resources and reduce or prevent point and nonpoint source pollution with a focus on impaired streams

This region has a significant number of impaired streams (approximately 3,400 miles, 20% of total stream miles) caused by various point and nonpoint sources of pollution. A major priority of this committee is to reduce or prevent this pollution and to focus added attention on “at-risk” water resources. It will be necessary to identify, protect and restore key, at-risk, water resources, minimize the effect of various land-use activities on ground and surface water resources, and implement comprehensive pollution prevention measures to decrease nutrient and sediment loading.

<u>Upper / Middle Susquehanna</u>

- Protect important headwater habitats and recharge areas of the Upper/Middle Susquehanna basin

To care for the water resources in the Upper/Middle Susquehanna basin and to ensure a sustainable supply of quality water, important headwater habitats and groundwater recharge areas must be protected. Because much of the basin is forested, the approach should focus on forested land use practices (public and private) and their effect on area water supplies. Working collaboratively with various interest groups (county and municipal government, conservation districts, watershed associations) is essential to advancing sound land use practices that are protective of these headwater areas. Coordination with local government to promote sound land use practices and appropriate zoning ordinances in public water supply recharge areas is particularly important in areas with limited availability of quality water. The committee also recommends that well construction standards be implemented, particularly related to residential well drilling, that will protect and sustain groundwater quality and availability.

- Address the consequences of acidic drainages on receiving streams to improve and protect water quality, aquatic ecosystems, and enhance the availability and utilization of water

Acidic drainages have devastated miles of streams in this region. This legacy pollution and potential future disturbances of acid-producing rock must be addressed to improve and protect overall water quality, aquatic ecosystems, and to enhance the availability of water. To improve stream quality, efforts must focus on treating abandoned mine drainage sources, encouraging reuse of treated abandoned mine water, reclaiming abandoned mine lands, and improving assimilation of nutrients and other pollutants in streams impaired by abandoned mine drainage. The benefits of this work would be far reaching: polluted water would be restored, treated water could be used as additional raw water sources where appropriate, abandoned mine lands could be returned to productive uses while minimizing erosion and sedimentation, and nutrient and sediment loads to the Chesapeake Bay would be reduced.

Potomac

- Address land use planning and growth

Managing growth is a critical priority in the Potomac Basin as more and more residents and businesses migrate into southern Pennsylvania, particularly from neighboring Maryland. Considering this development pressure, the Potomac region needs a strategy to manage water supply and demand that relies on scientifically based data and principles for land use planning. The strategy must allow for growth and development while maintaining adequate water quantity and quality. Preserving the natural hydrologic cycle, controlling increased run-off and flooding, and preserving streams are among the major concerns in this region. The committee recommends implementing sound land use practices, comprehensive regional planning, a regional regulatory program, and providing local governments with tools to properly manage water resources when faced with prioritizing competing land use decisions.

- Develop land use programs that protect water quality and quantity and preserve the ecological integrity of groundwater and surface water, including springs, streams, lakes, and wetlands

A major priority of this committee is to develop land use programs that protect water quality and quantity, and preserve the ecological integrity of groundwater and surface water, including springs, streams, lakes, and wetlands. To ensure adequate water resources for present and future generations in the Potomac Basin, the committee recommends a water quality objective that encourages municipal programs to include domestic well construction standards, riparian buffers and vegetated systems, and the protection of the natural soil mantle.