

## SECTION XIII

### SUMMARY OF FINDINGS AND NEEDS

#### A. DEVELOPING A WATER RESOURCES MANAGEMENT PLAN

Ensuring sustainable water resources for the future needs of the Pennridge Area requires comprehensive water resources management. Water resources encompass many facets and applying a comprehensive approach requires integrating the many facets of water resources, including the following:

- ❖ Groundwater availability
- ❖ Surface water movement, runoff, and storage
- ❖ Stormwater management
- ❖ Wetlands
- ❖ Floodplains
- ❖ Water supply
- ❖ Wastewater treatment
- ❖ Point and nonpoint source pollution control

It then takes working within existing water resources regulatory programs to develop a comprehensive plan that can be implemented on a municipal level using regulations, planning, and management. This *Pennridge Water Resources Plan* was developed with the intent of restoring and protecting water resources in the Study Area and to provide the basis of a scientific approach accomplishing its intent. Once the study findings and needs are identified, the next challenge becomes applying sound planning principals to implement the recommendations of the Plan.

The general process and approach, agreed upon during the development of this Plan, for managing water on a comprehensive watershed basis is as follows:

- 1) Determine the resources to be protected;
- 2) Quantify each of the hydrologic factors under various weather conditions to determine their relative importance to resources of concern;
- 3) Establish a standard baseline condition from which to manage water movement, (i.e., drought year, average year, or wet year);
- 4) Model the watershed under the desired management condition; and
- 5) Develop a procedure to regulate development and water transport to protect the resources.

## B. SUMMARY OF STUDY FINDINGS

This study was successful in accomplishing Step #1 above. Step #2 met with partial success because the study found that a complete quantification of all hydrologic factors was not possible due to the lack of a complete, continuous, or comprehensive database. It was determined Step #3 is an ongoing task and will require more research, monitoring, data collection, and analysis. Step #4 will provide additional justification for and support to the regulations that evolve out of Step #5. Step #5 should begin by obtaining legal counsel, with the understanding that development regulations at the municipal level are always in need of updating and fine-tuning as more scientific knowledge, experience, and legal ramifications are added to the process. Therefore, the challenges beyond this study include the following:

- Adoption of this *Pennridge Water Resources Plan (PWRP)* by the PACC  
(Done)
- Commitment by Penridge Area municipal officials to an additional two-year PWRP Implementation Program (July 1, 2002 through June 30, 2004)  
(Done)
- Acquisition of additional funding and retention of professional staff to conduct Phase III—Implementation  
(Pending/In Progress)
- Use of the Recommendations in Section XIV of this Plan and the Implementation Steps presented in Section XV of this Plan to accomplish the remaining Steps #2 through #5 above  
(To be accomplished throughout Phase III – Implementation)
- Continual monitoring of ongoing implementation activities of the Plan and revision of the Plan as necessary  
(To be ongoing)

## C. SUMMARY OF IDENTIFIED NEEDS

**Table XIII-1** summarizes the major needs that were identified throughout the study. The needs listed here were then formulated into recommendations for actions that should be taken during Phase III—Implementation, to be conducted over the two-year period July 1, 2002 through June 30, 2004. Section XIV—Recommendations presents a discussion of each recommendation and Section XV—Implementation Steps presents a tentative schedule for accomplishing the recommendations.

**Table XIII-1**  
**Needs Identified During the Preparation of the *Pennridge Water Resources Plan***

- **Administrative/Organizational Needs**
  - Continue into Phase III—Implementation
    - Obtain/retain professional consulting staff
      - Planning
      - Engineering
      - Hydrogeologist(s)
      - Legal counsel
    - Pursue grants and commit municipal matching funds
  - Form an intermunicipal water resources committee
  
- **Educational Needs**
  - Educate municipal officials, solicitors, and engineers about the Plan
  - Develop a Public Education and Awareness Program
    - Continue PACC/*Pennridge Water Resources Plan* link on Hilltown Township web page at <http://hilltown.org/pacc/>
    - Education materials
    - Public meetings and/or workshops
    - School science curriculum
  
- **Scientific Data Needs**
  - Establish a watershed monitoring program for the Pennridge Area
    - Assess condition of stream network
    - Install stream gauges to obtain continuous flow data
    - Obtain baseline water quality data
    - Obtain static water levels in wells
    - Obtain groundwater and surface water quality background data
  - Assess nonpoint source pollution situation
  
- **Regulatory Needs**
  - Develop model water resources management ordinance language per MPC requirements
    - Link land development plan requirements to water resource protection
    - Coordinate with Act 167 stormwater management plans
  - Update municipal Act 537 sewage facilities plans per DEP requirements
  - Develop a source water protection program per DEP requirements
    - Delineation of surface water source protection areas
    - Delineation of wellhead protection areas
    - Area-wide water conservation and reuse plan
  - Prepare an Integrated Water Resource Plan (IRP) for the East Branch Perkiomen Creek watershed per DRBC and DEP requirements