# WATER RESOURCES PLANNING (ACT 220) and the STATE WATER PLAN



# **The Need for Water Planning**



#### **Water Plan Vision**

- Pennsylvania has abundant and magnificent water resources, which should provide:
  - the basis for an exceptional quality of life for Pennsylvania's residents
  - ✓ an opportunity for outdoor enthusiasts
  - ✓ an attraction for visitors
  - ✓ unparalleled natural beauty
  - ✓ thriving ecosystems
  - agricultural prominence
  - economic prosperity throughout the Commonwealth



#### Vision - Cont'd

- All those with an interest in Pennsylvania have a stake in the use, enhancement, and stewardship of the Commonwealth's water resources
- The Pennsylvania Constitution vests a right to pure water and the values of the natural environment in all Pennsylvanians, and imposes a duty to conserve and to maintain public natural resources for this generation and generations yet to come



# **Achieving the Vision**

- 1. The State Water Plan will offer tools and guidance for all those who make decisions that affect the Commonwealth's water resources or who make decisions based upon the availability of water of adequate quantity and quality
- 2. The Plan should be useful to:
  - those who wish to locate and to design their projects so that the availability of water resources does not constrain them
  - those who wish to preserve high environmental quality where it exists and to achieve it where it does not
  - local governments with planning, conservation, and economic development responsibilities
  - Commonwealth and Interstate Compact agencies



# Achieving – Cont'd

- 3. The Plan should serve their needs by providing:
  - a qualitative and quantitative description of water resources in Pennsylvania based upon accurate, transparent, and readily accessible data
  - ✓ guidance on the use of that description and those data in the decisions that face the Plan's users
- 4. The Plan is a starting point for considering the opportunities available to Pennsylvanians for managing the state's water resources



# Act 220 of 2002 Water Resources Planning Act

- 1. Update the State Water Plan by 2008
- 2. Register and Report Certain Water Withdrawals
- 3. Identify Critical Water Planning Areas
- 4. Create Critical Area Resource Plans
- 5. Regional Priorities



# 1. Update the State Water Plan

# Water Planning Regions





## **Water Planning**

- 6 Regional Committees and 1 Statewide Committee to develop Plan for DEP approval and adoption
- Plan to be developed by March 2008
- Plan is to include a number of components, or "chapters," including:
  - ✓ Surface and groundwater resources
  - Assessment and projection of withdrawal and nonwithdrawal uses
  - ✓ Identification of potential problems and CWPAs
  - Assessment of public water supplies
  - Assessment of floodplain and storm water management problems



# Water Planning – Cont'd

- Assessment of water resources required to serve areas with important or unique natural, scenic, environmental, or recreational values
- ✓ Process for identifying water conservation practices
- ✓ Identification of practical alternatives for adequate supply of water
- Assessment of structural and nonstructural alternatives to address identified problems
- Review and evaluation of existing legal and regulatory authorities
- Review and evaluation of water resources management alternatives and recommended provisions to meet needs
- Proposed methods of implementing recommended actions and activities

# 2. Registration and Reporting

# **User Registration**

- Act 220 establishes interim registration requirements by March 2004 for:
  - All public water supply agencies
  - ✓ All hydropower facilities
  - ✓ All other users whose total withdrawal within a watershed exceeds an average rate of 10,000 gallons/day in a 30-day period
  - ✓ EQB to adopt regulations addressing
  - ✓ Registration
  - ✓ Periodic reporting
  - Recordkeeping of withdrawals
- NO metering of homeowner wells



## Registration – Cont'd

- Paper forms
- Web registration through GreenPort
- Forms and registration available on the DEP website



http://www.dep.state.pa.us/dep/DEPUTATE/watermgt/wc/Act220/Registration/Default.htm



# 3. Critical Water Planning Areas

## **Critical Water Planning Area**

- "Critical Water Planning Area" is a "significant hydrologic unit where existing or future demands exceed or threaten to exceed safe yield of available water resources"
- CWPAs may be designated:
  - ✓ In the Statewide Plan
  - ✓ In advance of the Statewide Plan by the Statewide Committee and DEP, upon recommendation of a Regional Committee, if justified by evidence developed during the planning process
- DEP and the Statewide Committee to adopt CWPA "criteria" and "process" in 2005

# 4. Critical Area Resource Plans

#### Critical Area Resource Plans

- Upon designation of a CWPA, a Critical Area Resource Plan is to be developed
- CARP is to be developed by the Regional Committee and approved by the Statewide Committee and DEP
- CARPs shall include:
  - Identification of existing and future reasonable and beneficial uses
  - Water availability evaluation, including a quantitative comparison of available resources to existing and future uses
  - Identification of anticipated future needs
  - Assessment of water quality issues that have a "direct and substantial" effect on water resource availability

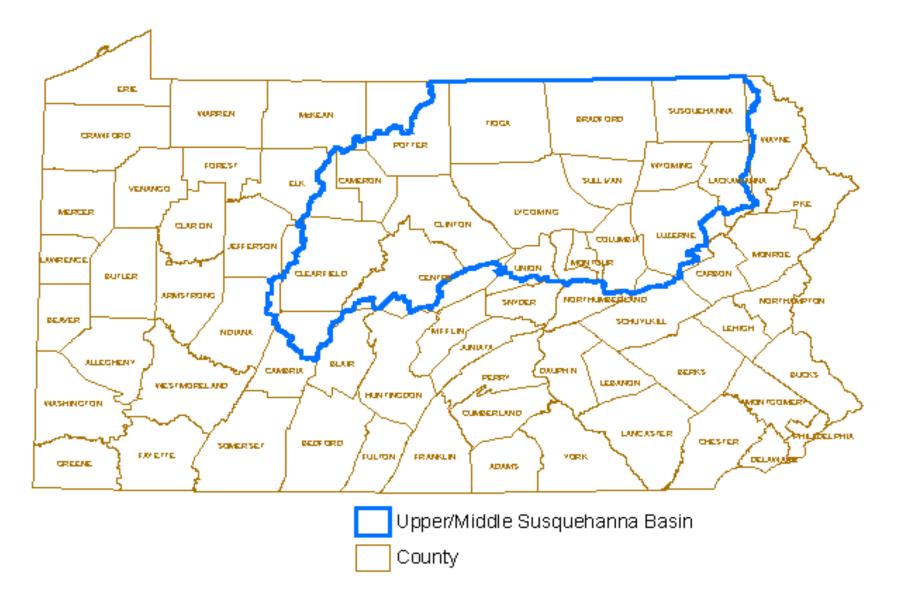
#### CARPs - Cont'd

- Consideration of storm water and floodplain management within the critical water planning area and their impacts on water quality and quantity
- ✓ Identification of existing and potential user conflicts and alternatives for addressing
- ✓ Identification of practicable supply-side and demand-side alternatives for assuring an adequate water supply



# 5. Regional Priorities

#### Upper/Middle Susquehanna River Basin



# Upper/Middle Susquehanna River Basin State Water Plan Regional Priorities

- 1. Water Quantity
- 2. Water Quality
- 3. Conservation, Preservation and Protection
- 4. Regional Planning/Land Use
- 5. Opportunities for Economic Development



## **Water Quantity**

- Promote water conservation through incentives
- Loss of groundwater recharge areas
- Storm water management
  - ✓ Peak flow
  - ✓ Groundwater recharge
- Future water needs: residential and industrial growth and development (Potential impacts: sprawl, out-of-state development pressures, bottled water industry, power generation, agriculture, and mineral extraction)





# **Water Quality**

- Point source pollution
  - ✓ Combined sewer overflows
  - ✓ Industrial discharges
  - ✓ Municipal wastewater
  - ✓ Water-borne diseases and parasites
- Non-Point source pollution
  - ✓ Storm water run-off (urban, suburban, rural)
    - Erosion & sediment controls
    - Timber harvesting
    - Agriculture
    - Construction activities
    - Dirt and gravel roads
  - ✓ Nutrients (agriculture, lawns, on-lot septic systems)





# Water Quality Cont'd

- Impaired waters/TMDLs
  - ✓ Assimilative capacity of streams (ex. Affects of acid precipitation on watersheds with low buffering capacity
- Mineral extraction (abandoned mine drainage, oil and gas wells, gravel pits & quarries)



# Conservation, Preservation and Protection

- Sustainability for Multiple Uses
- Preservation of Important Economic Uses
- Preservation of Non-Withdrawal Uses and Values
- Conservation of critical habitat areas (species of special concern, acid producing rock, pristine areas)



# Conservation, Preservation and Protection Cont'd

- River Corridor/Watershed Management
  - ✓ Greenways
  - ✓ Stream bank protection
  - Conservation Incentives (Stream buffers, flood loss reduction, downstream benefits)
- Critical aquifer recharge areas
- Private ownership impacts and conflicts
- Protection of fish and aquatic life





# Regional Planning/Land Use

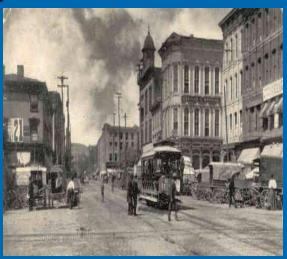
- Adequate tools and data for regional decisions
- Promote cooperation to meet water resource needs (shareholder participation)
- Public involvement and education





# Opportunities for Economic Development

- Marketing water resources for economic development
- Impaired water & wastewater treatment opportunities
- High purity applications
- Beneficial re-use of effluent
- Development and prudent management of groundwater resources
- Interbasin transfer







## **Public Participation Opportunities**

- May/Aug 2005 Public Meetings/Hearings in each region to solicit comments from interested persons on water resources planning issues related to the preparation of the regional component of the state water plan
- Regional and Statewide committee meetings
- Public meetings/hearings in each region to solicit input on the drafts of the initial regional plan components to be used in the development or amendment of the state water plan



# **2005 Regional Committee Meetings**

#### May

5/9 - Ohio

5/10 - Great Lakes

5/12 - Delaware

5/16 - Lower

Susquehanna

5/19 - Potomac

5/26 – Upper/

Middle

Susquehanna

#### August

8/8 - Ohio

8/9 - Great Lakes

8/11 - Delaware

8/15 - Lower

Susquehanna

8/18 – Upper/

Middle

Susquehanna

8/19 - Potomac

#### November

11/7 - Ohio

11/8 - Great Lakes

11/10 - Delaware

11/17 – Upper/

Middle

Susquehanna

11/18 - Potomac

11/21 - Lower

Susquehanna



#### **Act 220 Contact Information**

Registration Hotline: (888) 457-6653

DEP Water Planning Office (717) 783-4693

Uwe W. Weindel (570) 323-6140 Chair, Upper/Middle Susquehanna Regional Committee

Don Bluedorn (412) 394-5400

Chair, Statewide Committee

Jennifer Means (NCRO) (570) 327-3636 Bill Manner (NERO) (570) 826-2511 DEP Regional Liaisons



# **Questions and Comments**