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

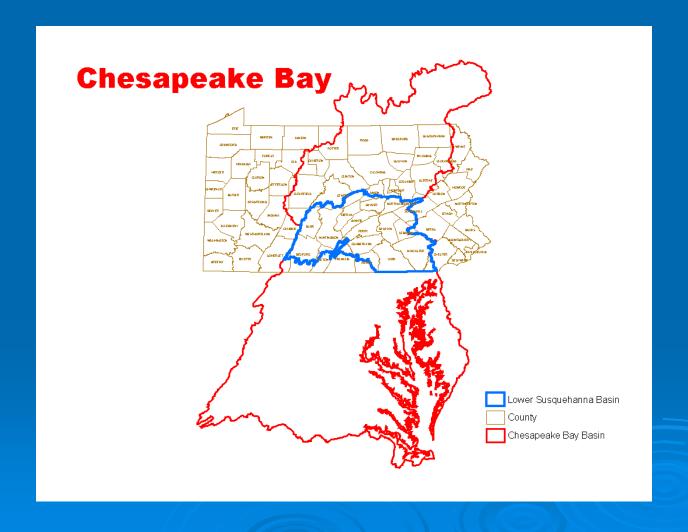
CARPs - Cont'd

- 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

Lower Susquehanna River Basin





- 1. Water Quantity: Inventory all Sources of Water
- 2. Water Quality: Ensure Quality to Protect Uses
- 3. Water Demand: Identify Current and Future Needs
- 4. Managing Supply vs. Demand



Water Quantity: Inventory all sources of water

- Calculate total water budget for each watershed.
- Evaluate land use impacts on water quantity: impacts on recharge, stream flows, stormwater, diversions out of watersheds by POTWs, etc.
- Identify source water characteristics: geologic formations, seasonal variations.
- Identify critical areas and instream flow needs.



Water Quality: Ensure quality to protect uses

- Assess nonpoint sources of pollution: agriculture, mining, waste disposal, spills, urban runoff.
- Assess point sources of pollution: discharges by POTWs and other sources.
- Pollution prevention and abatement: improve nutrient reduction technology and alternative treatments.
- Evaluate land use impacts on water quality.
- Assess regional vulnerability to pollution (sinkholes)
- Implement Chesapeake Bay Tributary Strategy



Water Demand: Identify current and future needs

- Identify withdrawal and non-withdrawal uses.
- Identify consumptive and non-consumptive uses.
- Quantify instream flow needs
- Identify storage capacity needs and alternatives
- Identify demand fluctuations and safe yields
- Identify uncertainties and assumptions of projected needs and uses.
- Evaluate land use impacts on demand



Managing Supply vs. Demand

- Water conservation for efficient use and reduced loss
- Critical Area Resource Planning
- Stormwater management to enhance recharge
- Reuse and recycling of water
- Conjunctive use of groundwater and surface water
- Source Water Protection plans and implementation
- Regional and watershed-based water resource plans
- Institutional and regulatory coordination.



Public Participation Opportunities

- May 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

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Questions and Comments