

## **I. Inventory Water Resources Supply and Demand**

Purpose: Expand our collective knowledge of sustainable water resources within the region to improve our ability to plan for the social, economic, environmental and recreational needs of the region.

**Goal 1:** Inventory water resources supply

**Objectives:**

1. Inventory all sources of groundwater and surface water
  - Maintain existing USGS gauge stations
  - Identify information gaps and address
2. Examine geologic influences on surface and groundwater quality and availability
  - Relate health issues to water quality
  - Promote widespread knowledge of water resources information availability
  - Centralize existing collected data
3. Identify and evaluate water quantity and quality issues (such as the impacts of land-use, agriculture, mining, and industry on surface and groundwater)
  - Examine DEP permit records for quantity and quality issues

**Goal 2: Inventory water resources demand****Objectives:**

1. Project demand for consumptive water use (i.e. evaporation, transfer out-of-basin, incorporation into products)
  - Project population growth and per capita consumption
  - Project non-residential and industrial use and trends
2. Quantify demand for non-consumptive water uses (all other uses)
  - Identify existing recreation activities and future needs
  - List power plant and hydroelectric demands
  - Identify minimum requirements for maintenance of stream plant and aquatic life
3. Identify and analyze CWPAs
  - Compare supply and demand
  - Identify locations with chronic water quality issues
4. Determine safe yields and impacts for flood and drought conditions
  - Calculate safe minimum flows for all streams
  - Reduce contaminants entering streams during floods

***Action Items for Goal 1 & Goal 2:***

- a) Consolidate supply and demand data
- b) Encourage sharing of water resources information among all agencies

## **II. Promote Water Resource Conservation and Protection**

Purpose: Promote the protection and conservation of our water resources to ensure a reliable supply of quality water for meeting human and ecological needs

**Goal 1:** Promote water resource conservation and protection

### **Objectives:**

1. Support healthy watershed activities and initiatives to enhance source water protection

#### *Action Items:*

- a) Increase the percent of public water supplies with source water protection plans or wellhead protection plans in place.
  - b) Interact with and encourage partnerships with: Small System Technical Assistance, PRWA, WREN, DEP regional staff, PSU Center, Conservation Districts, and Land Trusts
  - c) Emphasize the incorporation of risk assessment into inspection by sanitarians
  - d) Increase awareness of Master Well Owners Network sponsored by PSU
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2. Identify, protect and restore key, at risk, water resources such as:
    - Aquifers- develop mapping
    - Aquatic ecosystems- quantify minimum flows required
    - Ecologically sensitive watersheds- protect HQ and EV waters and state and nationally designated waters
    - Groundwater recharge areas- evaluate storage capacity and encourage recharge activities

- Riparian corridors- support programs to restore wooded or vegetative corridors to prevent erosion, runoff and nonpoint source pollution
- Wellheads- protect defined areas around wells
- Wetlands- preserve or restore functions of water storage, water filtration, flood absorption, and habitat for diverse species

***Action Items:***

- a) Incorporate “at-risk water resources” into a common GIS mapping format starting at the county level—to be made available for public and private development plans and their review
- b) Increase education and awareness of the interrelation of these water resources

3. Advocate for and implement water conservation practices and technologies to minimize water loss in water distribution systems and improve efficiency of commercial and residential water use

***Action Items:***

- c) Encourage public water systems to reduce unaccounted water loss in water distribution systems utilizing leak detection and metering. (other tools?)
- d) Encourage PUC to review pricing structures to encourage conservation by investor-owned water systems
- e) Provide incentives and funding (tax benefits) for infrastructure maintenance and repair
- f) Improve rate structure for public water and wastewater systems

4. Encourage water recycling and reuse programs and projects

***Action Items:***

- a) Support DEP Draft Guidance for Water Reuse (Standards for water quality, types of reuse, etc.)
- b) Educate the public, municipal officials and the business community about the benefits of water reuse and recycling, in order to increase acceptance
- c) Offer incentives to industry to recycle process water
- d) Provide incentives to commercial and residential development to incorporate water recycling techniques and minimize impacts of impervious surfaces

5. Promote water resource education and stewardship

***Action Items:***

### **III. Minimize Land Use Impacts**

**Purpose:** Recognize land use interrelationships that affect our water resources and develop strategies to reduce watershed and ecological impacts

**Goal 1:** Reduce or prevent point and nonpoint sources of pollution

**Objectives:**

1. Reduce and control the release of toxics, nutrients and pathogens to minimize the impacts of agricultural, mining, industrial and other land use activities on ground and water resources
2. Encourage more effective stormwater management programs or regional stormwater management (ex-Authority) to control run-off, promote infiltration and ensure sufficient groundwater recharge
3. Support implementation of comprehensive and sustainable Chesapeake Bay pollution prevention measures for nutrients and sediment, including legacy sediment accumulations

***Action Items:***

- a) Public education- pollution reduction and prevention
- b) DEP should require Comprehensive Planners to address regional stormwater management to receive planning money
- c) Work with Conservation Districts to encourage good erosion control practices to stop erosion where it starts by expanding cover cropping, no till programs, small financial incentives and education for landowners  
(keep here or move to Goal 2?)

**Goal 2:** Develop a comprehensive approach to improving water quality within our impaired streams

**Objectives:**

1. Support funding for Chesapeake Bay Program

**Goal 3:** Protect flood plains and waterway corridors; protect and restore wetlands

**Objectives:**

**Goal 4:** Encourage State agencies to expand the scope of Interagency Land Use Team initiatives to include more water resource issues

**Objectives:**

1. ILUT members review and comment on State Water Plan draft

***Action Items:***

- a) Task Interagency Land Use Team with evaluation of Chesapeake Bay Plan's effect on the Region (water quality and economy)

#### **IV. Unify Water Resource Management Initiatives**

**Purpose:** Promote more uniformity, communication and interrelationships among water resource stakeholders for consistency and joint advancement of mutually beneficial initiatives

**Goal 1:** Increase coordination and information sharing between regulatory water resource agencies and other state, county and municipal officials

**Objectives:**

**Goal 2:** Plan by regions and watersheds

**Objectives:**

**Goal 3:** Coordinate water resources planning with land use and transportation planning

**Objectives:**

**Goal 4:** Support financial, political and regulatory efforts to protect water resources and advance regional priorities

**Objectives:**



**Goal 5:** Advocate more regulatory linkages between state agencies

**Objectives:**

**Goal 6:** Promote the development and shared use of compatible data gathering and evaluation tools for water resources planning

**Objectives:**

**Goals 7:** Standardize an information gathering and report system for the many Water Authorities, Water Companies and Watershed Committees within the region to use as an early warning system and documentation tool

**Objectives:**

**Goal 8:** Facilitate water-based recreation activities

**Objectives:**