City of Watervliet

Source Water Protection Plan DWSP2 Update

January 30, 2020

Meeting Agenda

I. About CDRPC, 604b program

II. 2003 Watervliet Reservoir Protection Plan

III. Drinking Water Source Water Protection (DWSP2)

   a. Form a Stakeholder Group

   b. Establish Goals and Formulate a Vision

   c. Drinking Water Source Assessment

   d. Develop an Overview of the Water System

   e. Prepare a Drinking Water Source Protection Map

   f. Create a Potential Contaminant Source Inventory

   g. Develop a delineation method and protection area

   h. Protection and Implementation Strategies

   i. Identify Protection and Management Methods

   j. Develop an Implementation Timeline

   k. Progression and Maintenance

   l. Designate a Plan Management Team

IV. Next Steps

Form a Stakeholder Group

Suggested Committee Members:

- Stormwater Coalition of Albany County (w/ member ms4s in the watershed)
- Soil & Water Conservation District
- Hudson Mohawk Land Conservancy
- Farm Bureau
- Hudson River Watershed Alliance
- Schenectady County WQCC (W/ MS4s)
- Siena College
- Fishing groups (such as Trout Unlimited)
- Open space committees within watershed

Municipalities within Watershed

- Town of Guilderland
- Town of Rotterdam
- Town of Knox
- Town of Duanesburg
- Village of Altamont
- Village of Voorheesville
- Town of New Scotland
- Town of Bern
- Albany County
- Schenectady County

Goals and Vision

Should aim to guide development and implementation

Sample Goal

"protect the reservoir from external threats that impair water quality, affect operation of the hydropower plant and discourage recreational use of the land surrounding the resource"

From DWSP2: The Vision should:

1. Recognize that drinking water source protection is part of a multi-barrier approach.
2. Include input from stakeholder group members.
3. Declare intent to commit sufficient resources to drinking water source protection.

Sample Vision

"the reservoir will continue to provide pure water while minimizing costs to ratepayers and maximizing return on it's ability to provide clean energy. It will also provide a place for recreation without endangering or sacrificing water quality"

Drinking Source Water Assessment

A general water system overview.

- Water quality summary
- Water quantity summary

Used to select appropriate methods to delineate drinking water source protection areas

Drinking Water Source Protection Map

- Map the drinking water source
- Delineate drinking water source protection areas for the reservoir and contributing streams
    - Utilize Stream Stats, identify steep slopes and development
- Populate map with potential contaminant sources
- Add local land use and land cover data

Create a Potential Contaminant Source (PCS) Inventory

- Identify all PCS within the established protection areas
- Identify point and nonpoint sources
- Update inventory table of PCS with relevant information
    - **Chemical Bulk Storage (oil and petroleum, too)**
    - **Active Landfills and Inactive Landfills**
    - **Hazardous Waste Management Facilities**
    - **Land Application Sites (sewage sludge, septage, food processing and brewery/vineyard wastes, and other organic materials provides valuable nutrients to the soil)**
    - **Vehicle Dismantling Facilities**
    - **Remediation Sites**
    - **Spill Incidents**
    - **Oil and Gas Wells**
    - **Mines**
    - **State Pollutant Discharge Elimination System (SPDES) Facilities**
    - **Airports and Transportation Corridors**
    - **Road Maintenance Facilities and Salt and Deicers Storage**
    - **Agricultural Activities**
    - **On-Site Septic Systems**
    - **Oil and Gas Pipelines**
    - **Golf Courses**
    - **Fire Training and Dedicated Fire Training Facilities**
    - **Land cover**
    - **Zoning**

Protection Methods - Land Use Tools and Methods

Regulatory

- Municipal Comprehensive Plan
- Zoning Ordinances
  - **Source Prohibitions** -Source prohibitions can be used to address activities that typically require the use of hazardous materials, or restrictions on the use of specific hazardous materials. Examples of activities that may involve hazardous materials include coal combustion for power generation, manufacturing of automotive parts, plastics film manufacturing, chemical manufacturing, and metal coating. Prohibiting specific hazardous materials, such as heavy metals, solvents, petroleum products and radioactive materials, may also be effective.
  - **Conservation Zoning District** - Allows a municipality to limit land uses in the defined conservation zoning district.
  - **Overlay Zoning** - An overlay district can span across multiple zoning districts and can add requirements for sensitive areas.
  - **Setbacks** - Establish setbacks to limit certain activities in a designated area.
- Special Use Permits
- Site Plan Reviews
- Subdivision Control
- Critical Environmental Area (CEA)
- New York State Watershed Rules and Regulations
- Intermunicipal Agreements

Non-regulatory

- Land Purchase/Acquisition or Voluntary Conservation Easements
- Transfer of Development Rights
- Encouraging or Incentivizing the Use of Best Management Practices (BMPs)
- Intermunicipal Organizations
- Build-Out Analysis