

Orangetown DWSP2 Committee Meeting #2

September 18, 2024



Department of Environmental Conservation

Agenda

1:00 – 1:05 PM: Welcome and Updates

1:05 – 1:25 PM: DWSP2 Goals and Vision Statement Finalization

1:25 – 1:55 PM: Potential Contaminant Source Discussion and Review of Draft Source Water Protection Maps

1:55 – 2:00 PM: Wrap Up / Next Steps



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DWSP2 Process

- Phases of Plan Development:
 - Form a stakeholder group
 - Formulate the vision and goals
 - Prepare drinking water source protection maps
 - Inventory potential contaminant sources
 - Complete drinking water source protection maps
 - Identify protection and management methods
 - Develop an implementation timeline
 - Finalize plan
 - Implement plan



Goals and Visioning Exercise

- **Goals:** overarching and should be an indication of what we hope to accomplish with the plan
- **Vision:** guide the development and implementation of the plan, recognize that drinking water source protection will likely involve multiple approaches, declare intent to commit sufficient resources to drinking water source protection



Goals and Visioning Exercise

Vision Statement Examples:

- *“Clean drinking water for the Town of Wappinger and future residents, sourced from healthy natural aquifers, recharge areas, and protected watersheds.”*
 - Town of Wappinger
- *“The Town of Fishkill, in collaboration with regional agencies and neighboring municipalities, has established and implemented an effective framework for aquifer protection, designed to ensure that the public water supply wells continue as a source of quality drinking water that meets public health standards and guidelines, and serves current and future residents of southern Dutchess County.”*
 - Town of Fishkill



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Goals and Visioning Exercise

Vision Statement Examples:

"New York City's Department of Environmental Protection has a comprehensive watershed protection program which focuses on both protective and corrective initiatives, to ensure that its Catskill/Delaware reservoir system, the source of 90% of the supply's daily demand, remains unfiltered and sustains its extraordinarily high quality"

-NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION, NEW YORK CITY, NEW YORK

"The Edwards Aquifer Authority is committed to manage and protect the Edwards Aquifer system to ensure the entire region of a sustainable, adequate, high quality and cost-effective supply of water, now and in the future"

-SAN ANTONIO WATER SYSTEM, SAN ANTONIO, TEXAS



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Goals and Visioning Exercise

Goal Examples:

- Build on work already completed to further protect existing drinking water resources by protecting the wellheads and important aquifer source areas, including Wappinger and Sprout creeks.
- Educate the community on their water supply and how to protect it. Draw on the Town culture of innovation and service to enhance citizen participation.
- Continue to rely on three wellfields for clean drinking water.
- Since a portion of Atlas wellfield water is understood to be induced from the Wappinger Creek, enhance existing intermunicipal commitments to protect Wappinger Creek water quality through efforts of the WIC, with a particular focus on the immediately upstream Towns of LaGrange, Poughkeepsie, and Pleasant Valley.
- Since two of Wappinger's wellfields are understood to induce flow from the Sprout Creek, develop intermunicipal interest in water resource protection along the Sprout Creek, particularly with the upstream Towns of East Fishkill, LaGrange, and Union Vale, and seek to develop a Sprout Creek Intermunicipal Council.
- Collaborate on land conservation projects, including acquisition of conservation easements/fee purchases, when appropriate, to protect critical and extended source areas.
- Update the Town code and other provisions with water protection measures for balanced and sustainable growth, similar to the existing Natural Resource Management Plan for the Wappinger Creek Watershed.



Goals and Visioning Exercise

Goal Examples:

Protect public health

Improve public confidence in drinking water supply

Address existing drinking water quality issues

Avoid drinking water treatment costs or the need to find a new water supply¹

Provide quality tasting drinking water

Become an environmental steward

Create long-lasting partnerships with various stakeholders

Engage and educate the community about their drinking water

Maintain property values, tax revenues, local tourism and jobs

Promote a sense of pride in the community

Increase supply reliability

Increase reliability of treatment technology

Knowing what contaminants are regulated and addressing emerging or unknown contaminants

Evaluate current land use and plan for future land use



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Potential Contaminant Source Inventory (POC)

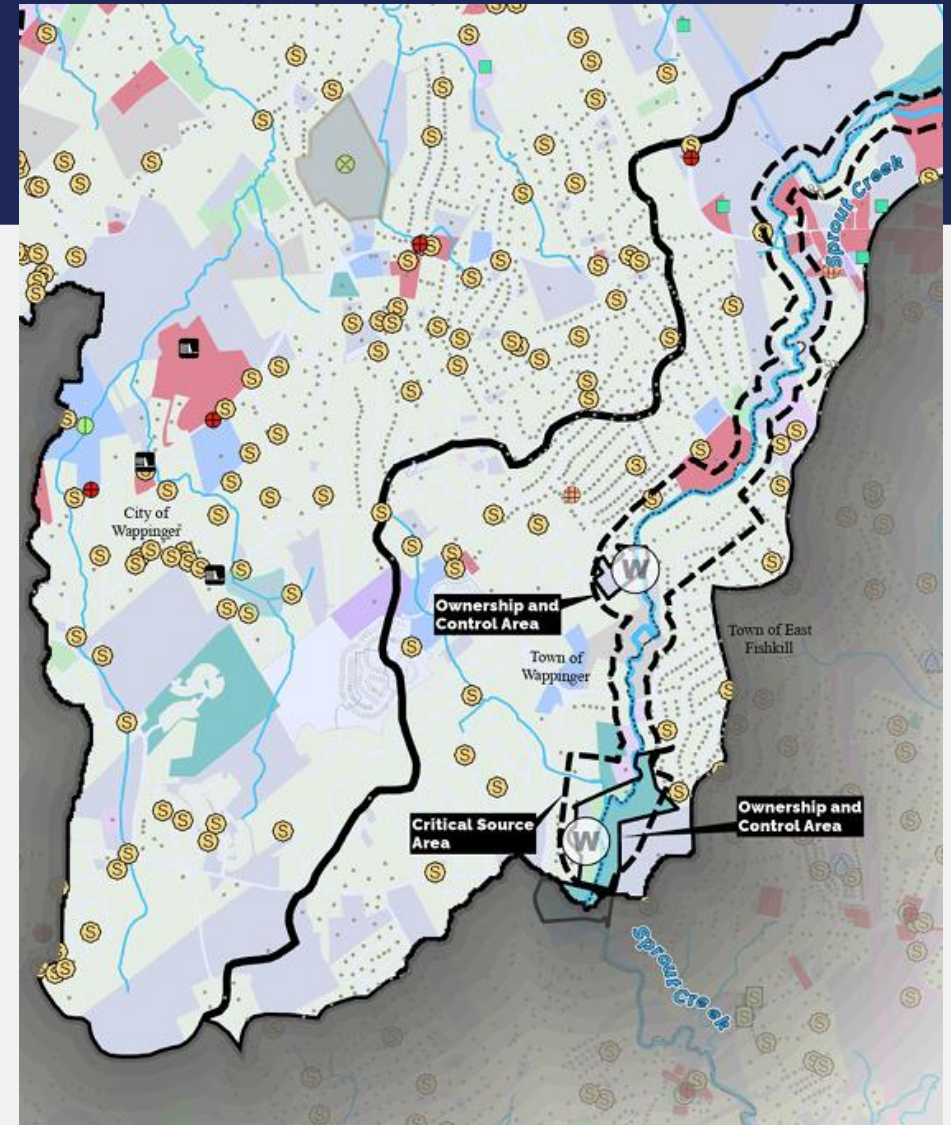
- Goal is to identify all potential contaminant sources within the established protection areas.
- Divided up into two categories:
 - Point sources (ex. Gas Stations)
 - Nonpoint sources (ex. Lawn and Garden Chemicals)

Source: Town of Wappinger DWSP2 Plan



Mapping & POC Inventory

Town of Wappinger Example



Source: Town of Wappinger DWSP2 Plan



POC Inventory Example Table

Potential Contaminant Source Inventory Table - Example

Potential Source	Contaminant of Concern	Protection Area	Relevant Information
Agricultural Activities	Nutrients, specifically Nitrogen, Phosphorus and pesticides	Critical Area and Source Water Area	The previously approved Nine-Element (9E) Watershed Plan for Reservoir X indicated that agricultural runoff is a cause of nutrient impairment. Evidence of agricultural activities contributing to nutrient loading in Reservoir X and the percent land cover existing within critical area and source water area are potential risks to the water supply.
SPDES permitted discharge facility – Industrial Discharger	Likely hazardous chemicals	Critical Area	Information from the drinking water source assessment showed a surface wastewater discharge facility permitted under the NYS DEC SPDES program, located within the critical area. Facility specific information was gathered after speaking with the regulated entity using questions from Appendix C: Questions to Ask the Regulated Entity . Review of EPA's Enforcement and Compliance History Online (ECHO) database confirmed four consecutive quarters with a compliance violation. The industrial facility is also listed under EPA's Toxic Release Inventory. This facility is considered a risk to the water supply because the operations require handling and disposal of potentially hazardous chemicals within the critical area.
Projected high-intensity development (potential on-site septic systems, chemical storage tanks, oil and gas wells)	Likely chemical and microbial contaminants	Source Water Area	Although the source water area is not considered the highest priority area, nutrient loading from discharges associated with high-intensity development can pose a risk to the watershed as a whole. High intensity development would encompass several different potential sources of contamination. There are currently no laws within this projected area that are protective of the water supply.



Susceptibility of Wells in Orangetown

Well Name	Well Number	Microbials	Nitrates	VOCs	Others
Nanuet*	13	MH	H	H	H
Tappan	16	MH	H	H	H
Tappan	20	MH	MH	MH	MH
Pearl River	22	MH	MH	NR	NR

Key: Medium High Susceptibility (MH), High Susceptibility (H), Not Rated – Unlikely to Affect Source Water (NR)

*Nanuet well is located in Clarkstown, but portions of the well's critical area are in Orangetown

Source: Veolia 2023 Annual Water Quality Report



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