

# Orangetown DWSP2 Committee Meeting #4

February 3, 2025



Department of Environmental Conservation

# Agenda

- 11:00 – 11:05 AM:** Welcome and Updates
- 11:05 – 11:15 AM:** Potential Contaminant Sources and Implementation Measures Presentation
- 11:15 – 11:35 AM:** Review Draft Source Water Protection Maps
- 11:35 – 11:55 AM:** Begin Potential Implementation Measure Discussion
- 11:55 AM – 12:00 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



# Potential Contaminant Source Inventory (POC)

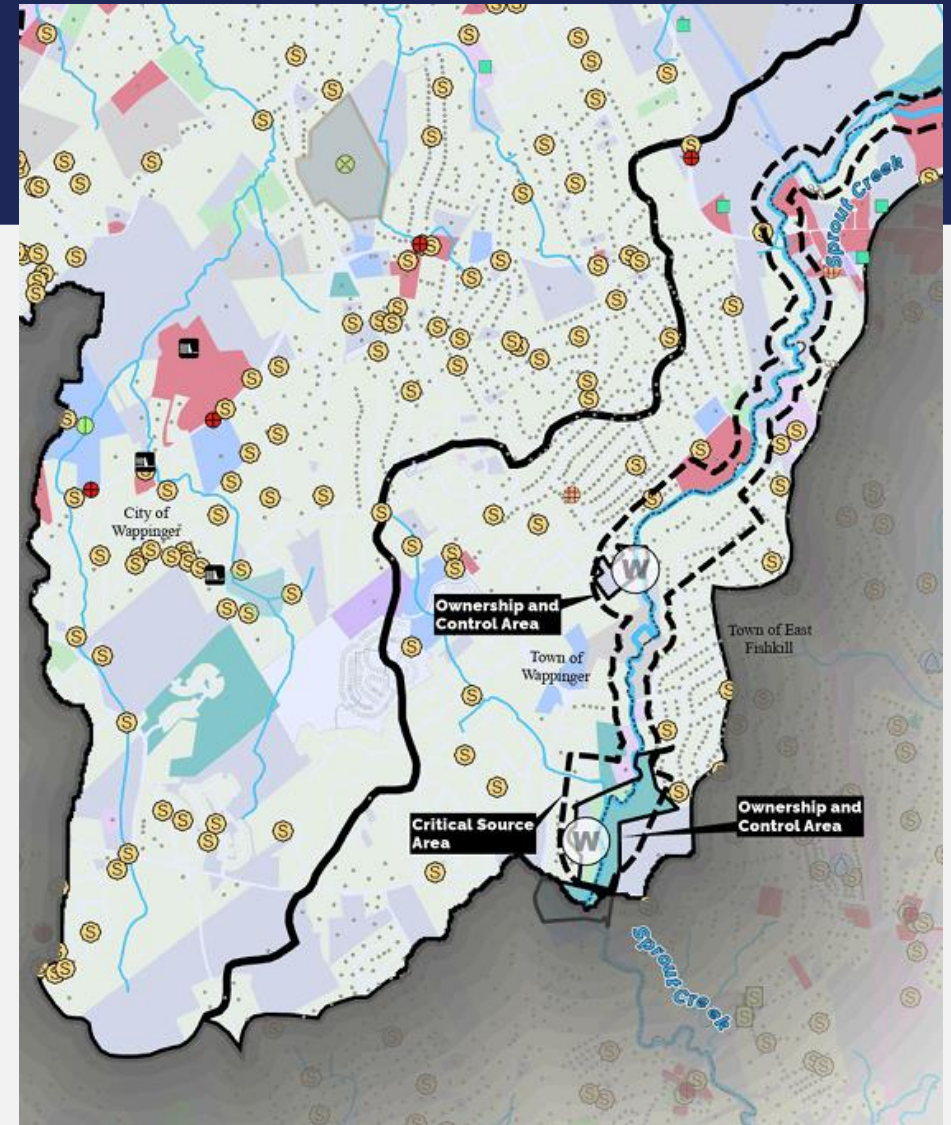
- Goal is to identify all potential contaminant sources within the established protection areas.
- Divided up into two categories:
  - Point sources (ex. Gas Stations)
  - Nonpoint sources (ex. Lawn and Garden Chemicals)



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# Mapping & POC Inventory

## Town of Wappinger Example



Source: [Town of Wappinger DWSP2 Plan](#)



# POC Inventory Example Table

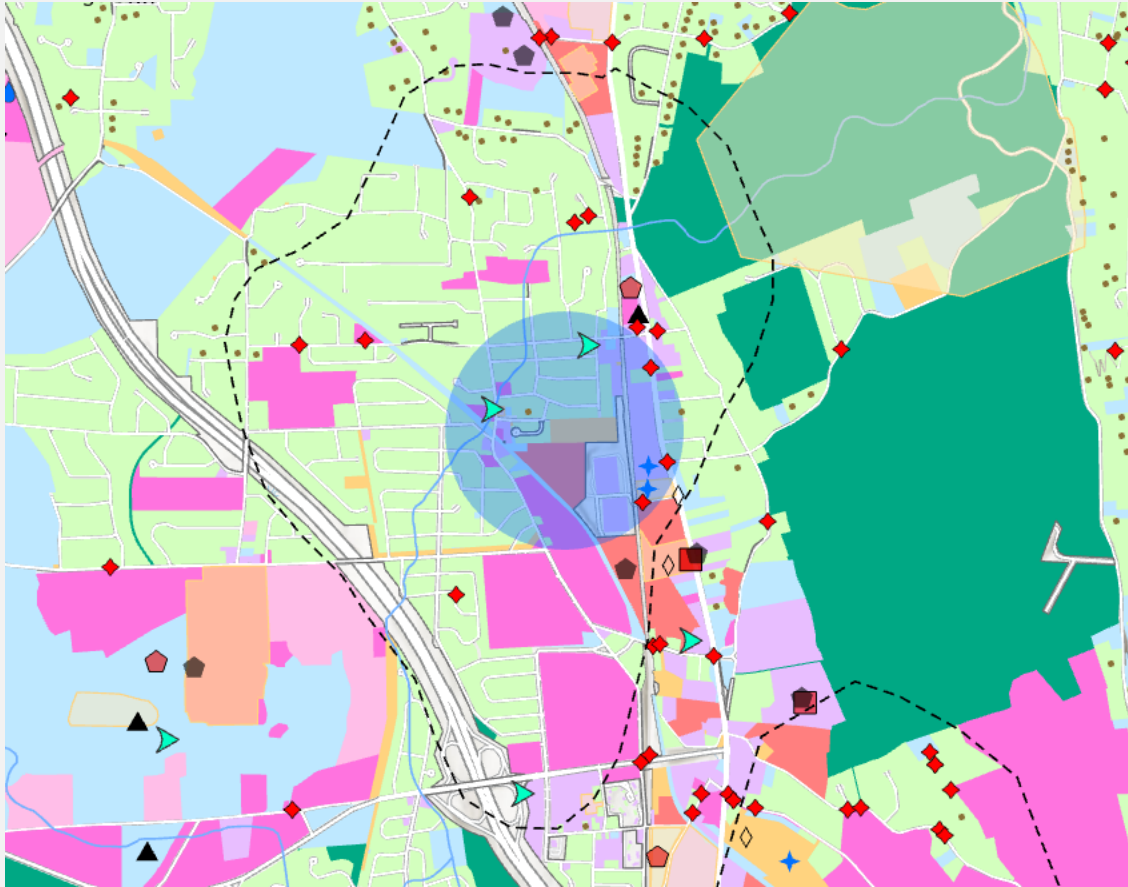
Table 2.3b - Potential Contaminant Source Inventory - Hilltop and Meadowwood			
Potential Source	Contaminant(s) of Concern	Protection Area(s) Impacted	Relevant Information
<b>Critical Area - Hilltop and Meadowwood Watershed</b>			
Septic systems	Nitrates and microbials	Critical Source Area	Located on parcels adjacent to Sprout Creek. Most of the Town is unsewered.
Road runoff	Salt	Critical Source Area	Streets crossing the creek are a source of runoff. Locations include Taconic State Pkwy, RT-55, Todd Hill Rd, Skidmore Rd, Barmore Rd, Stringham Rd, Noxon Rd, Lauer Rd, Robinson Ln, Route 376, and Montfort Rd.
Agricultural Activities	Nutrients, specifically Nitrogen, Phosphorus and pesticides	Critical Source Area	Agricultural activities may contribute to nutrient loading in the Atlas wellfield.
<b>Extended Source Area - Hilltop and Meadowwood Wellfield</b>			
Septic Systems	Nitrates and microbials	Extended Source Area	Most of the Town is unsewered.
Chemical Spill incidents	Chemical - petroleum	Extended Source Area	NYSDEC Spill Response Program oversees the investigation and cleanup of these spills. Most spills are from releases of petroleum, including leaking USTs.
Bulk storage	Underground oil and gas tanks	Extended Source Area	Tanks that are not maintained can be sources of contamination.
Road runoff	Salt	Extended Source Area	Streets throughout the Extended Source Area are a source of runoff.
Sky Acres Airport	Potential PFOA/PFOS, salt, other VOCs, etc.	Extended Source Area	Location in Lagrangeville. Runoff and fire retardant foam may be cause for concern.
Agricultural Activities	Nutrients, specifically Nitrogen, Phosphorus and pesticides	Extended Source Area	Agricultural activities may contribute to nutrient loading in the Atlas wellfield.

Source: [Town of Wappinger DWSP2 Plan](#)



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# POC Inventory Examples



- Septic Systems/Wastewater Facilities:** Nutrients and Microbials
- Petroleum Bulk Storage:** Underground Oil and Gas Tanks
- Road Runoff:** Sodium Chloride
- Road/Chemical Spills:** Motor Vehicle Fluids
- Lawn Care:** Fertilizers; Nutrients: Nitrogen and Phosphorus
- Dry Cleaners:** Perchloroethylene



# Steps to Developing Implementation Methods

- Identify the priority issue
- Identify the target contaminant source
- Explain the threat
- Identify a goal to reduce or mitigate the threat
- Determine protection and/or management methods
- Determine potential costs
- Identify potential sources of funding
- Identify partners to assist in implementation
- Determine an implementation timeline
- Rank the priority





# Example Implementation Methods

Priority #	Priority Issue (Indicate Area)	Targeted Potential Contaminant Source(s)	What is the Threat?	For larger public audience: Why does it matter? What is the Risk?	Goal (Reduce or Mitigate the Threat)
4 (cont.)	Enhanced Management of Regulated Potential Contaminant Sources in Critical Area (Mombasha Lake and Well #4)	Aboveground/Underground Fuel/Chemical Storage Tanks, Spills	Chemical and fuel leaks and spills entering the groundwater or waterbody directly	Chemical, biological or physical leaks and spills may allow contaminants to enter the waterbody directly	Enhanced monitoring of chemical contaminant sources in the critical area. To enhance communication with public, and operators of facilities storing large tanks or DEC staff that work with these regulated facilities to understand the nature of the threat as associated risk and response efforts.
6	Outreach and Education	Lakefront Properties	Use of fertilizers, household chemicals, etc. and improper management of boating activities can release harmful contaminants into the water source.	Uncoordinated or lack of enforcement of municipal laws can result in chemical, physical or biological spills or contaminants directly entering the waterbody from boats, residents, etc.	Dialogue with homeowners to influence personal choices protective of water quality.
		Residential and Institutional/business Sources: Lawn and Garden Chemicals	Overland flow from residential land along the creek and its tributaries bringing excess chemical into the creek and reservoir	Herbicides and pesticides can contaminate, soil, water and non-target plants and be toxic to humans and other organisms	Reduce the amount of herbicides and pesticides applied and mitigate overland flow into the waterbody
		Other Sources: Parks and Dog Run	Runoff from recreational parks and dog parks can leach into the aquifer and watershed and increase chemical and bacteriological contaminants	Trash and fecal matter can increase contamination in the watershed and aquifer which will increase need for treatment	Reduce amount of nutrients from recreational and dog parks
		Septic Systems	Many homeowners may not know if they have a failing septic system. Identifying can help prevent contamination of the watershed	Excess nutrients in the watershed can result in formation of contaminates that require additional treatment.	Reduce the amount of nutrients from failing septic systems from entering the waterbody

Source: [Village of Monroe DWSP2 Plan](#)



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# Example Implementation Methods

## **Outreach and Education:**

- Education and outreach on how to reduce pesticide use and alternative treatment practices
- Signage at the Smith Clove Dog park to emphasize how excess fecal matter and trash can affect the nearby water source
- Education and outreach to educate homeowners on how to properly maintain their septic systems and existing programs that can support them

## **Enhanced Management of Regulated Potential Contaminants:**

- Review permits, prepare a monitoring and inspection plan, and consider secondary containment or remediation guidance requirements as warranted.

## **Future Development:**

- Model future conditions to understand the impacts on water quality from increased temperatures, changes to precipitation and runoff patterns that will affect water quantity and quality

[Source: Village of Monroe  
DWSP2 Plan](#)

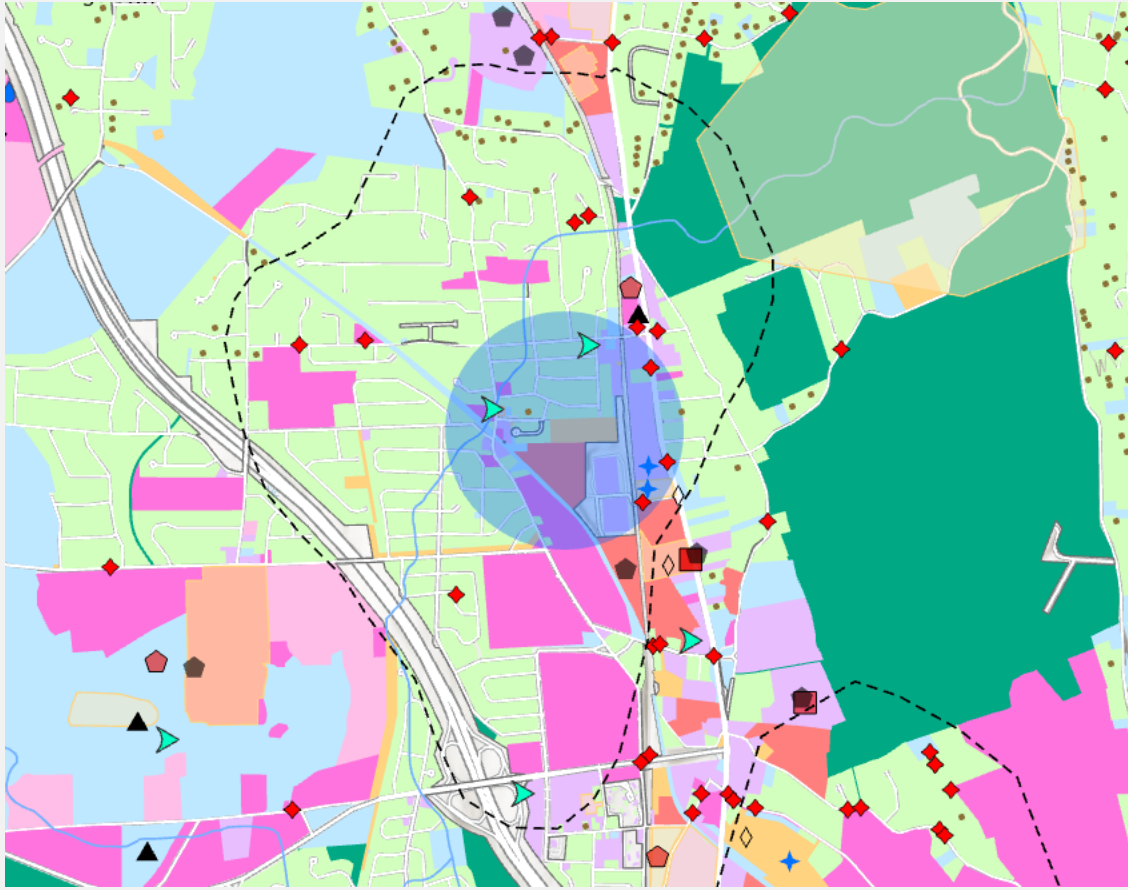


# Implementation Methods Example Table

<b><u>Land Use Tools and Methods</u></b>	<b><u>Monitoring and Reporting</u></b>
<p><i>Regulatory</i></p> <ul style="list-style-type: none"><li>• <a href="#">Municipal Comprehensive Plan</a></li><li>• <a href="#">Zoning Ordinances</a></li><li>• <a href="#">Special Use Permits</a></li><li>• <a href="#">Site Plan Reviews</a></li><li>• <a href="#">Subdivision Control</a></li><li>• <a href="#">Critical Environmental Area (CEA)</a></li><li>• <a href="#">New York State Watershed Rules and Regulations</a></li><li>• <a href="#">Intermunicipal Agreements</a></li></ul> <p><i>Non-regulatory</i></p> <ul style="list-style-type: none"><li>• <a href="#">Land Purchase/Acquisition or Voluntary Conservation Easements</a></li><li>• <a href="#">Transfer of Development Rights</a></li><li>• <a href="#">Encouraging or Incentivizing the Use of Best Management Practices (BMPs)</a></li><li>• <a href="#">Intermunicipal Organizations</a></li><li>• <a href="#">Build-Out Analysis</a></li></ul>	<ul style="list-style-type: none"><li>• <a href="#">Review Existing Data</a></li><li>• <a href="#">Expand Monitoring</a></li></ul> <p><b><u>Outreach and Education</u></b></p> <ul style="list-style-type: none"><li>• <a href="#">Digital/Social Media</a></li><li>• <a href="#">Paid Advertising: News, Digital, Radio</a></li><li>• <a href="#">Press Release/Editorials</a></li><li>• <a href="#">Newsletters</a></li><li>• <a href="#">Factsheets, Flyers, Direct Mail</a></li><li>• <a href="#">Email Blasts</a></li><li>• <a href="#">Signage</a></li><li>• <a href="#">Tabling/Presenting at Events and/or Conferences</a></li><li>• <a href="#">Community Events</a></li><li>• <a href="#">Training</a></li></ul>



# POC Inventory Example Management Methods



**Septic Systems/Wastewater Facilities:** Apply for funding to replace septic systems, make wastewater facility improvements, educate homeowners in critical area

**Petroleum Bulk Storage:** Make sure facility information is up to date, check NYS DEC Spills Database, to maximum extent possible visit the facilities to check for spills and mishandled chemicals.

**Road Runoff:** Characterize the roadsides into management zones, maintain roadside vegetation

**Road/Chemical Spills:** Check spills database, work with DOT to make sure emergency response plan is up to date

**Lawn Care:** Educate homeowners about BMPs



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# Potential Grant Opportunities

## **NYS DEC Water Quality Improvement Project (WQIP) Program**

- Can be for land acquisition for source water
- Link to website here: [Link](#)

## **NYS DEC Non-Agricultural Nonpoint Source Planning Grant Program**

- Can be used to assist in nonpoint source pollution prevention (ie. stormwater runoff)
- Link to website here: [Link](#)

## **Hudson River Estuary Program Local Stewardship Planning**

- Can be used for water quality improvements and source water protection
- Link to website here: [Link](#)

## **Green Resiliency Grants/Green Innovation Grant Program**

- Green infrastructure projects
- Link to website here: [Link](#)

## **Local Waterfront Revitalization**

- Land use regulation projects
- Link to website here: [Link](#)

## **Trees for Tribes**

- Provides tree and shrub seedlings to improve buffers around waterbodies
- Link to website here: [Link](#)



# Contact Information

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