

Project Profiles

The project profiles detailed here expand upon **Table xx** in the report and the data summary for each of the protection and management methods. They address each of the contaminants of concern outlined in **Table xx** and are meant to be a guide for protection and management methods and implementation timeline and steps. Each project profile outlines the issue and includes the implementation timeline and steps, potential contaminant source, goals and priorities, costs of the project, and potential funding sources and partners.

Each Profile is listed in the order that the Protection and Management Methods appear in **Table xx**, with the exception of priority issues that include contact with the same entities. Those issues were combined for succinctness.

The priority level of the Profile is listed as either high, medium, or low. Costs are broken down into low, medium, and high. Low-cost projects are generally under \$2,000 – \$3,000 and may be completed within the Village's budget. Medium (above \$3,000 but under \$10,000) and High-cost projects (above \$10,000) might be best suited for a capital project or grant. The timelines are broken down into short, medium, and long-term projects. Short term projects can be done immediately, medium is within 5 years, and long-term are more than 5 years from now. Some projects are ongoing and listed as such.

Project Profile 1: Private Septic System Database

TARGETED POTENTIAL CONTAMINANT SOURCE: Fecal bacteria entering the groundwater due to improperly managed septic systems and out of date septic system records.

The majority of Orangetown is served by a public sewer system. However, for the portion of Orangetown that is not on municipal sewer, septic system records may be outdated or incomplete. Current records were obtained through assessor information on each parcel. This information may not contain information on historic septic system or be up to date on newly installed or closed septic systems.

Septic systems located within the critical areas can potentially introduce fecal bacteria into the water supply if they are not properly maintained. With up-to-date information on parcels on private septic systems, informational pieces can be sent out to targeted addresses to inform the public on proper maintenance to avoid groundwater contamination.

GOALS AND PRIORITIES:

- Update Orangetown's records pertaining to which parcels are on private septic systems.
- Ensure proper maintenance information is provided for the public.
- Reduce risk of contamination to source water.

Priority Level: High

SUMMARY OF PROTECTION AND MANAGEMENT METHODS:

Methods to reduce the risk and mitigate the threat include:

- Update records pertaining to parcels served by a private septic system.
- Developed targeted outreach materials on septic system maintenance

POTENTIAL COSTS:

Estimated cost: \$5,000

Potential costs include staff time to develop, distribute, and analyze survey results; staff time to sort through old records to determine if there are any gaps that can be filled; staff time to update and/create a septic system database; staff time to develop and distribute informational pieces.

Cost Classification: Low

POTENTIAL FUNDING SOURCES:

- Town budget
- **Water Treatment Plant** operational budget

POTENTIAL PARTNERSHIPS - PEOPLE AND AGENCIES INVOLVED:

- Plan Management Team
- Town of Orangetown

SUGGESTED TIMELINE:

Short Term: less than 1 year for planning

Medium Term: 1 to 3 years for database update completion

Ongoing: Annually assess informational pieces and update as necessary. Annually distribute informational pieces

POTENTIAL BARRIERS:

- Communication with landowners
- Historic information may not be available

IMPLEMENTATION STEPS:

1. Plan Management Team and Town of Orangetown determine what information is needed for the septic system database.
2. Identify methods to record this data, whether through a survey or historical record search.
3. Identify who should be the one to gather this data.
4. Develop the database.
5. Develop any materials needed to assist in data collection.
6. Begin gathering information.

Project Profile 2: Countywide Coordinated Municipal Outreach Pieces (Intermunicipal Coordination)

TARGETED POTENTIAL CONTAMINANT SOURCE:

Orangetown's drinking water is supplied by Veolia Water, Inc., who also provides water, through the same system, to much of Rockland County. Through this DWSP2 plan, Orangetown is able to move forward with protecting water quality within its boundaries. However, since the Veolia water distribution system spans Rockland County and water from throughout the County is treated and mixed prior to distribution to each municipality, Orangetown would like to work towards the development of a Countywide coordinated by Veolia and Rockland County effort to inform and protect source water supplies to benefit all those served by the Veolia water system.

GOALS AND PRIORITIES:

- Connect with other municipalities served by the Veolia water system in Rockland County
- Develop shared messaging regarding water quality protection for the system

Priority Level: High

SUMMARY OF PROTECTION AND MANAGEMENT METHODS:

Methods to reduce the risk and mitigate the threat include:

- Maintain a good working relationship with neighboring municipalities
- Maintain a good working relationship with Veolia Water, Inc.
- Periodic coordination with neighboring municipalities
- Establish a shared messaging campaign and outreach schedule

POTENTIAL COSTS:

Estimated Cost: \$1,000

Potential costs include staff time to meet with municipal staff, gather information, and develop and distribute promotional material

Cost Classification: Low

POTENTIAL FUNDING SOURCES:

- Municipal Budget
- NYS DEC Hudson River Estuary Local Stewardship Planning Grant
 - Funds for water quality improvement planning and design and source water protection.
- Hudson River Greenway Community Grant
 - Funds natural resource protection, regional planning, and environmental education

POTENTIAL PARTNERSHIPS - PEOPLE AND AGENCIES INVOLVED:

- Rockland County Towns and Villages served by Veolia
- Veolia

SUGGESTED TIMELINE:

Short Term: approximately 1 year for planning and initial communication with municipalities

Ongoing: Meetings to discuss messaging and frequency of messaging

POTENTIAL BARRIERS:

- Communication with all municipalities
- Communication with Veolia Water, Inc.
- Establishing a messaging campaign that meets everyone's needs
- Potential efficiency issues in intermunicipal collaboration

IMPLEMENTATION STEPS:

1. Maintain relationships with municipalities served by the Veolia Water, Inc. water system. Emphasize the importance of relationship to protect drinking water quality.
2. Request meeting quarterly to develop a shared messaging campaign around water quality protection.
3. Communicate the importance of the use of best management practices near well fields to avoid contamination of groundwater.
4. Determine messaging information and schedule.
5. Develop messaging materials.
6. Send out messaging on agreed upon schedule.

Project Profile 3: Countywide Database on Firefighting Foam Usage

TARGETED POTENTIAL CONTAMINANT SOURCE: PFOS, PFAS

The use of firefighting foams is crucial for containing large fires. However, the use of PFAS in foam can have a negative effect on the environment. Large usage of foam may not be containable and infiltrate the ground or run off into storm drains and nearby waterways. This introduces PFAS into the source watershed.

In order to manage the releases of PFAs where PFAS free foam cannot be implemented, a countywide database is proposed to inform municipalities of planned and unplanned releases.

GOALS AND PRIORITIES:

- To protect the groundwater source water from water quality degradation due to the introduction of PFAS from a nearby fire event
- Develop a countywide communication network or database to inform municipalities of the PFAS releases.

Priority Level: Medium

SUMMARY OF PROTECTION AND MANAGEMENT METHODS:

Methods to reduce the risk and mitigate the threat include:

- Develop a database that includes all releases of PFAS firefighting foam, including approximate amount, location, and containment status

POTENTIAL COSTS:

Estimated cost: \$10,000

Potential costs include staff time to meet with potential partnerships and subsequent meetings to develop the database, staff time to enter usage information into the database

Cost Classification: Low

POTENTIAL FUNDING SOURCES:

- Town budget (Orangetown and partnering municipalities)

POTENTIAL PARTNERSHIPS - PEOPLE AND AGENCIES INVOLVED:

- Plan Management Team
- Town of Orangetown Fire Department
- Rockland County Municipal Fire Departments
- Rockland County

SUGGESTED TIMELINE:

Short Term: 1 year for planning and meeting to discuss database development

Ongoing: Manual update to the database as incidents occur.

POTENTIAL BARRIERS:

- Potential data gaps if not all municipalities participate in the database
- Potential data gaps if other private entities use PFAS foam

- Determination of who hosts the database development and management
- Additional staff time requirements to maintain this database

IMPLEMENTATION STEPS:

Methods to reduce the risk and mitigate the threat include:

1. Meet with Rockland County municipalities to discuss the feasibility of the database
2. Determine how the database should be designed and maintained
3. Determine what information is needed, including what is already collected by the Fire Departments and what might need to be collected.
4. Determine an implementation timeline for when to start entering data into the database and how frequently it should be updated.
5. Begin work on the database.

Project Profile 4: Public Awareness Leading to Drinking Water Source Protection

TARGETED POTENTIAL CONTAMINANT SOURCE: Pesticides, Herbicides, Other Lawn and Garden Chemicals, and Any Unwanted Contamination of Source Water in Critical Areas

Pesticides, herbicides, and other lawn and garden chemicals from residential land uses within the critical areas could impair Orangetown' drinking water. With increased frequency and/or intensity of precipitation events, increased runoff will bring more contaminants into the system.

A chemical spill in any part of the source watershed could eventually end up in the groundwater supply. Residential properties may contain unknown or unlisted chemical storage, which could be a source. Additionally, any illegal dumping of chemicals, such as paint, into stormwater drains or septic systems could end up in the groundwater system.

GOALS AND PRIORITIES:

- Clean water
- Increases public awareness for watershed protection

Priority Level: Medium

SUMMARY OF PROTECTION AND MANAGEMENT METHODS:

Methods to reduce the risk and mitigate the threat include:

- Education for Town residents (i.e. road signage, mailings, etc.)

POTENTIAL COSTS:

Estimated Costs: \$15,000

Potential costs include printing costs, signage, mailings and postage, and staff time spent planning and developing implementation methods.

Cost Classification: Medium

POTENTIAL FUNDING SOURCES:

- Town Budget
- NYS DEC Hudson River Estuary Local Stewardship Planning Grant
 - Funds for water quality improvement planning and design and source water protection.
- Hudson River Greenway Community Grant
 - Funds natural resource protection, regional planning, and environmental education.

POTENTIAL PARTNERSHIPS - PEOPLE AND AGENCIES INVOLVED:

- Town of Orangetown
- Plan Management Team
- Local Environmental Groups or Organizations (i.e. Sparkill Creek Watershed Alliance, Cornell Cooperative Extension Rockland County)

SUGGESTED TIMELINE:

Short-term: Initial planning and idea identification for educational outreach

Ongoing: Continued engagement with community on the importance of source water protection through informational sessions and outreach events.

POTENTIAL BARRIERS:

- Need to maintain privacy for security reasons of exact well and reservoir locations.
- Balancing privacy with need to prevent unwanted contamination of the water system.
- Not everyone will be receptive to or understanding of the need to protect the watershed.

IMPLEMENTATION STEPS:

1. Plan Management Team meet to identify methods to educate the public on potential contaminant threats (e.g. informational newsletter, public outreach events, etc.).
2. Identify potential collaborators (e.g. local environmental groups or organizations).
3. Apply for funding, if necessary.
4. Develop informational materials that can be distributed to the public via social media, informational mailings, web postings, newspaper postings, public meetings, or workshops.

Project Profile 5: Update Town Code with Water Protection Methods

TARGETED POTENTIAL CONTAMINANT SOURCE: Any Unwanted Contamination of Source Water in Critical Areas

Updating the Town Code will allow Orangetown to implement measures for balanced and sustainable growth within the critical areas defined in this plan. The development of an aquifer ordinance will allow Orangetown to regulate new development within the critical areas to protect drinking water quality.

GOALS AND PRIORITIES:

- Clean water
- Regulate zoning in well field critical areas

Priority Level: Medium

SUMMARY OF PROTECTION AND MANAGEMENT METHODS:

Methods to reduce the risk and mitigate the threat include:

- Develop new aquifer ordinance for the well field critical areas

POTENTIAL COSTS:

Estimated Costs: \$5,000

Potential costs include staff time to develop the overlay, staff time to update town code

Cost Classification: Medium

POTENTIAL FUNDING SOURCES:

- Town of Orangetown

POTENTIAL PARTNERSHIPS - PEOPLE AND AGENCIES INVOLVED:

- Town of Orangetown
- Plan Management Team

SUGGESTED TIMELINE:

Short-term: Approximately 1 year for planning and development

POTENTIAL BARRIERS:

- Balancing well location privacy with need to prevent unwanted contamination of the water system.

IMPLEMENTATION STEPS:

1. Plan Management Team meet to identify the areas to include in the Town Code update
2. Plan Management Team discuss update with Orangetown Planning and Zoning Boards
3. Determine any additional changes to be made to the Town Code
4. Update the Town Code
5. Develop informational materials on the update that can be distributed to the public via social media, informational mailings, web postings, newspaper postings, public meetings, or workshops.
6. Distribute materials to the Town