

# Bloomington Water District Drinking Water Source Protection Program (DWSP2) Plan

System Name: Bloomington Water District  
PWS Number: NY 1500275

Location:  
Town of St. Armand  
Essex County  
New York

LaBella Project No. 2223129.14  
OGS Contract SD936  
Project SE327

April 2024



# Table of Contents

List of Acronyms

Introduction

<b>1.0</b>	<b>STAKEHOLDER GROUP</b>	<b>1</b>
1.1	Community Advisory Group	1
1.2	Vision and Goals	1
<b>2.0</b>	<b>DRINKING WATER SOURCE ASSESSMENT</b>	<b>2</b>
2.1	Overview of the Water System	2
2.1.1	Primary Source	2
2.1.2	Water System History	2
2.1.3	Water System Existing Conditions	3
2.1.4	Water Quality	3
2.2	Drinking Water Source Protection Map	4
2.2.1	Ownership and Control Area	4
2.2.2	Critical Source Area	4
2.2.3	Extended Source Area	5
2.3	Potential Contaminant Source Inventory	5
<b>3.0</b>	<b>PROTECTION AND IMPLEMENTATION STRATEGIES</b>	<b>5</b>
3.1	Summary of Protection and Management Methods	5
3.1.1	Wellfield Property Ownership	6
3.1.2	Improve Sanitary Protection of Unused Caisson Springs and Security for Unused Wells	6
3.1.3	Wellfield Security	7
3.1.4	Residential Septic Systems	7
3.1.5	Managed Road Salt Application and Improved Salt Storage	7
3.1.6	Promote Awareness of Potential Contaminant Sources	9
3.1.7	Investigating Unexplained PFAS levels	9
3.2	Implementation Steps	9
3.3	Implementation Timeline	9
<b>4.0</b>	<b>PROGRESSION AND MAINTENANCE</b>	<b>9</b>
4.1	Plan Management Team	9

**Appendix 1 - Drinking Water Source Protection Program (DWSP2) Plan Data Summary**

DWSP2 Plan Checklist.....1.1  
Public Water Supply Information.....1.2  
Table 1.1a – Community Advisory Group Members.....1.3  
Table 1.1b – Community Advisory Group Meetings.....1.4  
Table 1.2a – Vision.....1.5  
Table 1.2b - Source Water Protection Goals.....1.6  
Table 2.1 - Overview of Water System.....1.7  
Table 2.2a - DWSP2 Map Description.....1.8  
Table 2.2b - DWSP2 Map Data Sources.....1.9  
Table 2.3 - Potential Contaminant Source Inventory.....1.11  
Table 3.1/3.2 - Protection and Management Methods & Timeline.....1.12  
Table 3.2a –Implementation Steps.....1.14  
Table 3.3 – Cost Analysis.....1.17  
Table 4.1a – Plan Management Team.....1.20  
Table 4.1b - Plan Management Summary.....1.21  
Table 4.1c - Plan Tracker.....1.22

**Appendix 2 –Maps**

1. Potential Contaminant Sources and Topography ..... 2.1  
2. Land Uses..... 2.2

## LIST OF ACRONYMS

BMP	Best Management Practice
BTS	Bureau of Transportation Statistics
CAG	Community Advisory Group
CFA	Consolidated Funding Application
CSO	Combined Sewer Overflow
DPW	Department of Public Works
DWSP2	Drinking Water Source Protection Program
EFC	Environmental Facilities Corporation
EIA	Energy Information Agency
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FERC	Federal Energy Regulatory Commission
GIGP	Green Infrastructure Grant Program
GIS	Geographic Information System
GWUDI	Groundwater Under the Direct Influence of Surface Water
HGL	Hydrocarbon Gas Liquids
MGD	Million Gallons Per Day
NHD	National Hydrology Dataset
NLCD	National Land Cover Data
NRCS	Natural Resources Conservation Service
NYS	New York State
NYSDEC	Department of Environmental Conservation
NYSDOH	Department of Health
NYSDOT	Department of Transportation
PFAS	Per- and Polyfluoroalkyl Substances
PFHPA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
SEQR	State Environmental Quality Review
SPDES	State Pollution Discharge Elimination System
SWAP	Source Water Assessment Program
SWCD	Soil and Water Conservation District
TRI	Toxic Release Inventory
USGS	United States Geological Survey
WQIP	Water Quality Improvement Project

# INTRODUCTION

The Town of St. Armand in Essex County, New York, applied for free technical assistance to prepare a Drinking Water Source Protection Program (DWSP2) Plan to protect its local source water. A New York State (NYS) technical services team (“consultant team”) led by LaBella Associates, D.P.C. (“LaBella”) was assigned to the Town and worked closely with a St. Armand Community Advisory Group (CAG) to develop the DWSP2 Plan. The plan was developed using the New York State Departments of Environmental Conservation (NYSDEC) and Health (NYSDOH) DWSP2 framework to assist municipalities with assessing and supporting public drinking water source protection.

The Town owns and operates the public water supply known as the Bloomingdale Water District, PWS ID# 1500275. The source of the public water supply is groundwater, drawn from a grouping of bedrock wells installed on a parcel near the Bloomingdale hamlet. This public water system currently serves a population of approximately 950 within the Town of St. Armand. There are approximately 250 service connections.

This plan was developed by the Town based on the guidance document prepared by NYSDEC and NYSDOH, and with technical assistance provided by the consultant team. Implementation and periodic update of this source water protection plan is intended to protect the long-term viability of the Town’s public water supply sources and can contribute significantly to the conservation of natural resources and preservation of general public health. In addition, protection of the water source creates other future benefits, including drinking water treatment savings costs, general liability insurance savings, maintenance of real estate values, and increased source resilience responsive to climate change.

Previous reports created by the Town and permits were used in the development and completion of the DWSP2 Plan. These include Water System Operation Reports, Annual Water Quality Reports, and Water Withdrawal Permits.

**1.0 STAKEHOLDER GROUP**

**1.1 Community Advisory Group**

In 2022, the consultant team conversed with the lead applicant, Davina Winemiller, St. Armand Town Supervisor to consider who to ask to serve on the DWSP2 Plan Community Advisory Group (CAG) committee. The group of individuals subsequently chosen for the CAG have a variety of backgrounds, many of whom have years of experience with or in the realm of source water protection. These individuals represented the Town water department, Town leadership and planning, Essex County, the Adirondack Land Trust (providing regional planning assistance), and the NYS Department of Health. Supervisor Winemiller can be contacted by email at [davinastarmand@gmail.com](mailto:davinastarmand@gmail.com). A complete listing of the CAG members is in Table 1.1a, below.

**Table 1.1a – Community Advisory Group**

Name	Relevant Affiliation
Davina Winemiller	Town Supervisor
Cory Skiff (transitioning to Morris Coolidge)	Water Department Supervisor
Robert Wick	Essex County Planning Department
Marlene R. Martin	NYS Department of Health
Megan Stevenson	Adirondack Land Trust

The CAG scheduled a series of working meetings between 2022 and 2023 (roughly every month). These meetings initially included a formal kickoff meeting to facilitate coordination between the participating parties, introduce the consultant team, review the objectives of the DWSP2, and identify other interested parties to engage. The subsequent meeting included discussions of specific goals and a vision to guide the plan, reviews of mapping and potential contaminant threats, leading to meetings at which responsive planning protection steps with associated budgets and schedules were formulated. Each meeting led to substantial contributions to the development of the full plan. The meeting dates and topics are summarized in Table 1.1b in Appendix 1.

**1.2 Vision and Goals**

The CAG met to formulate a vision guiding their DWSP2 work, and supportive goals. The following vision was created by the CAG for the Town’s public water supplies:

**The Town of St. Armand seeks to establish a protection program for the Bloomingtondale Water District’s drinking water source and recharge area in order to meet the hamlet’s long-term water supply needs. This includes managing the recharge area in a sustainable fashion to preserve the associated natural resources for the future.**

The CAG then established specific goals for the DWSP2 Plan, supportive of the vision statement. One of the strong components of the DWSP2 Plan is the need to educate residents and business owners within the recharge area of the importance of the Water District’s water source and the need to ensure its long-term protection. In addition, it is important for the Town to acquire the Bloomingtondale Water District wellfield from its current owner, Paul Smith’s College.

Table 1.2a provides the full list of St. Armand’s DWSP2 Plan goals.

**Table 1.2a – DWSP2 Plan Goals**

1. Comply with regulatory requirements of Part 5, Subpart 5-1 Standards for Water Wells - Appendix 5D for ownership and control around the public wells.
2. Manage any potential sources of contamination and risks on the wellfield property.
3. Protect surrounding lands in the recharge area from contributing to potential contamination.
4. Educate residents and business owners within the recharge area of the importance of this effort and the location of drinking water resources under their homes and places of business.
5. Explore the introduction of compatible low-impact recreational activities with educational opportunities leading to public awareness of the importance of their water quality.

## 2.0 DRINKING WATER SOURCE ASSESSMENT

---

### 2.1 Overview of the Water System

#### 2.1.1 Primary Source

The Bloomingtondale Water District public water supply source consists of several bedrock wells clustered on a property across Sumner Brook from the majority of the developed hamlet.

#### 2.1.2 Water System History

The wellfield site was originally established in the 1890’s and previously referred to as “Crystal Springs on Caroline Hill.” The location consists of a descending hillside with shallow soils and many exposed bedrock outcroppings. Natural water outlets from a series of natural springs and hillside seepage areas were originally intercepted using vaults and shallow caissons. This blend of surface water and shallow groundwater was piped under Sumner Brook to a wooden water tower that was located where the current Water Treatment Plant building is sited.

Years later, a sequence of 6 bedrock wells were drilled on this property on the east side of Sumner Brook. Each is approximately 300 feet deep. These offered varied yields based on the fractures each individually intercepted so a subset of these bedrock wells provide the current water supplies to the Bloomingtondale Water District water system. From time-to-time new wells have been required as mineralization reduces yields in individual wells. The shallow vaults and caissons have all been disengaged from the public water supply and provide no water to the community.

In 1981, the Village of Bloomingtondale signed a 50-year lease for the wellfield land with Paul Smith’s College. This lease ends in 2032.

The Village was dissolved on January 1, 1986. At that time, the Town of St. Armand acquired the water supply and distribution system and operates it on behalf of the service customers in the Bloomingtondale Water District.

During November of 2021, the Bloomingdale Water District experienced a series of well-pump failures. The water system operator has been working to determine the cause of these failures, but at this point there is a concern that another cycle of well replacements may be required. Until this occurrence, one of these wells, Well 4, was producing 82 gallons per minute and Well 5 was producing 82 gallons per minute.

All other residents in the surrounding Town of St. Armand rely on individual domestic or commercial wells. While not the focus of the DWSP2 Plan, some of the source water protection initiatives envisioned herein to protect the public water system wellfield are likely to also help preserve domestic well water quality.

### *2.1.3 Water System Existing Conditions*

The Bloomingdale Water District wellfield is situated on a large parcel adjacent to Sumner Brook and across this brook from the majority of the developed core of the hamlet of Bloomingdale. The wellfield site draws water routinely only from three wells, Wells 4, 5, and 6. Well 3 is used only in case of emergency. All site wells are approximately 300 feet deep and Wells 3 through 6 have the capacity of providing between 8 and 30+ gallons per minute.

Average daily water demand based on yearly usage is 0.5 million gallons per day (MGD). The Maximum Daily water demand based on the unofficial 3-day average in peak month is 1.2 MGD.

The current Water Withdrawal Permit was issued on December 21, 2011 and does not include an expiration date. The permitted water withdrawal capacity is not identified in the permit.

### *2.1.4 Water Quality*

The raw water from the wellfield receives routine disinfection with liquid chlorine before it is distributed to residents.

Annual water quality reports identify no exceedances of drinking water standards. The annual water quality report indicates that nitrate concentrations were Not Detected in 2021. Sodium and chloride were present, below standards for chloride and above the lowest guidance value for sodium.

Screening samples were collected during all 4 quarters of 2021 for PFOS, PFOA, and 1,4-Dioxane. Perfluorooctanoic acid (PFOA) is present in the water but below the current NYS drinking water standard. A related compound, Perfluoroheptanoic acid (PFHPA) was also present; there is no current NYSDOH drinking water standard. No 1,4-dioxane was identified above the lab detection limit.

While the wells are situated near Sumner Brook, they have been evaluated for micro-particulate biologic matter and NYSDOH has rendered a determination that these wells do not require filtration which might otherwise be necessary if they were deemed to be Groundwater Under the Direct Influence of surface water (GWUDI).

## 2.2 Drinking Water Source Protection Map

### 2.2.1 Ownership and Control Area

The Bloomingdale Water District wellfield lies on a 41.83-acre wooded parcel owned by Paul Smith's College and leased to the Town of St. Armand through 2032. This ownership and control area is shown on Maps 1 and 2 in Appendix 2. Both maps were created using ArcGIS Pro software. The source water protection areas contributing to Bloomingdale Water District's water source are semi-developed (hamlet of Bloomingdale) and undeveloped, including NYS Forest Preserve located to the north of the wellfield.

NYS Department of Health requires that wellfield operators own a minimum of 100 feet of land around each public water system well and control land a minimum of 200 feet around each well (Part 5, Subpart 5-1 Standards for Water Wells - Appendix 5D). This condition is not strictly met at this site since the Town leases rather than owns the wellfield parcel. It is a priority Town and DWSP2 Plan objective to acquire the parcel. Wells 3, 5 and 6 appear to lie more than 200 feet from the presumptive property line at the centerline of the stream. Well 4 appears to lie more than 100 feet but less than 200 feet from this presumptive property line. Precise setback distances would require survey.

### 2.2.2 Critical Source Area

The community's presumptive understanding of the recharge area for the Bloomingdale Water District wellfield has long been uphill above the wells. This area, however, was estimated for this plan and found to be less than 20 acres, considering the distance to the hilltop, and applying an approximate 1,000 foot radius of influence around the active wells. Using an estimate of 8 to 10 inches of annual aquifer recharge in this acreage, based on the widespread presence of hydrologic group C soils found in the area as well as shallow bedrock, this acreage appeared inadequate to balance the proven capacity of the wellfield.

Site wells are installed in fractured bedrock northeast of Sumner Brook. The wellheads are less than 20 feet above creek elevation and limited operational data indicate that water levels in the pumped wells are routinely drawn down more than 150 feet below grade. This review suggests the wells routinely draw groundwater levels below the creek level and so can draw in groundwater from both sides of Sumner Brook.

Using topographic hydrogeologic mapping, a complete recharge area was mapped for the Bloomingdale Water District wells including lands both east and west of the Sumner Brook. This area is shown as the Critical Source Area on Map 1 in Appendix 2. Maps in Appendix 2 were created using ArcGIS Pro software. The total Critical Source Area is approximately 50 acres, which was estimated to be sufficient to satisfy the water withdrawal volumes.

Given the relatively small recharge area and moderate to steep topographic gradients both east and west of the creek, and the lack of pumping test data to provide hydraulic conductivity data, it is likely that recharge anywhere in the delineated area could reach the wells in approximately 5 years or less, so the entire area is mapped as the Critical Source Area providing recharge to the Bloomingdale Water District wells.

### 2.2.3 Extended Source Area

The recharge area estimated above is limited. Therefore, as noted, the CAG discussed and agreed to address the full recharge area as the Critical Source Area. There is accordingly no Extended Source Area.

## 2.3 Potential Contaminant Source Inventory

Publicly available data source layers for land use categories and discrete potential point sources of contamination were downloaded and posted to project maps to allow the CAG to summarize and prioritize potential contaminant sources. Point sources indicated by this review are posted on Maps 1 and 2 (Appendix 2). This review identified only a limited number of mapped point-source potential contaminant sources in the Bloomingdale Water District's delineated Critical Source Area. Land use is shown on Figure 2 in Appendix 2.

Paper copies of the Bloomingdale DWSP2 Plan maps provide an overall visual impression of the distribution of potential contaminant sources.

The CAG reviewed the Potential Contaminant Sources Map and created a summary of the specific categories of contaminants, found in Table 2.3 in Appendix 1. The CAG also discussed the land uses in the Critical Source Area and some of the discrete sites familiar to the committee members, to ensure that the summary of threats captured all manner of water quality contaminants warranting protective planning.

Broadly summarized, the Bloomingdale Water District's potential sources include septic systems, perhaps some domestic underground petroleum storage tanks, road salt applied to roads and stored at the Town storage facility, possible vertical groundwater connectivity threats associated with former spring caissons and existing unsecured wellfield site bedrock wells, and general property owner threats posed by both residential and commercial property ownership. There is also the presence of low levels of per- and polyfluoroalkyl substances (PFAS) associated with unknown sources.

These potential contaminants within the Critical Source Area provided the CAG with direction on the categories of land use and activity warranting attention when developing this DWSP2 Plan. As a note, the CAG also recognized that the geolocated elements on Map 1 and Map 2 in Appendix 2 are not confirmed sources of contamination per se, but rather represent indications of potential risk as well as suggested categories of potential groundwater contaminant sources based on the histories of land use and their traditional contaminant risk correlations.

## 3.0 PROTECTION AND IMPLEMENTATION STRATEGIES

---

### 3.1 Summary of Protection and Management Methods

The CAG discussed the threats reviewed in Section 2.3, above. To protect the public drinking water sources from these potential contaminants, the CAG then developed plan recommendations for each potential contaminant. Details are found in Table 3.1/3.2 in Appendix 1. These protection plan elements also support the project goals described in Section 1.2.

The CAG recognized that certain planning protection measures, such as prohibiting new underground heating oil tanks, only address future land use contaminants, while others such as local education, enhanced spill response, and septic system upgrades, can be deployed to address existing or otherwise ongoing threats.

Table 3.1/3.2 in Appendix 1 also includes budget estimates for each protection initiative, potential funding sources, and likely collaboration partners. More analysis describing the budget estimates is shown in Table 3.3 in Appendix 1.

This DWSP2 Plan focuses generally on securing abandoned/unused wells, implementing security measures at the wellfield, taking residential septic systems out of service where possible, managing road salt applications and storage to reduce sodium and chloride loading in the recharge area, and education and management of low to high water quality risk activities on residential and commercial areas. As indicated in Table 3.1/3.2 in Appendix 1, the highest ranked priority issue is owning the wellfield site to comply with regulatory requirements of Part 5, Subpart 5-1 Standards for Water Wells - Appendix 5D and to allow subsequent wellfield security improvements. Improving the sanitary protection of the unused springs and wells as well as reducing road salt applied to roads and salt runoff from the salt storage facility are of moderate priority. The highest ranked topic of inquiry and investigation is learning how a limited number of PFAS compounds reached the water supply wells.

These proposed protection and management methods are summarized below, with additional information provided in Table 3.1/3.2 in Appendix 1. Detailed implementation steps for each protection plan element are found in Table 3.2a in Appendix 1.

### *3.1.1 Wellfield Property Ownership*

The wellfield property is currently not owned by the Town of St. Armand. While the Town has a good relationship with Paul Smith's College and a lease through 2032, full ownership of the land will allow the Town to invest the appropriate planning and protection resources more directly for this property as well as satisfy ownership and regulatory requirements of Part 5, Subpart 5-1 Standards for Water Wells - Appendix 5D. With the assistance of the Adirondack Land Trust as a partner the Town of St. Armand is likely to seek NYSDEC WQIP funding to acquire the wellfield parcel, recognized as Plan Element 1.

In discussion with the Saranac Lake District Office of the NYSDOH, some measure of land use control may also eventually be required for Well 4 which appears to be less than 200 feet from the presumptive property line.

### *3.1.2 Improve Sanitary Protection of Unused Caisson Springs and Security for Unused Wells*

Historic overburden spring caisson wells and unused site bedrock wells present pathway threats to the existing bedrock wells where they might serve as vertical conduits for potential source water contamination. This source water vulnerability may be due to accidents or intentional acts. To promote source water protection and provide sanitary protection for the wellfield, unused bedrock wells need secure caps and former caisson wells should be filled and graded out. Plan Element 2 addresses these actions. The Town of St. Armand Water Department will work with the Town Supervisor on this plan element.

### 3.1.3 Wellfield Security

Plan Element 3 consists of addressing security concerns to limit the potential for accidental or even intentional contaminant releases to the wellfield. This involves enhanced protection of wells along with the control (generator/electrical) building using fencing, protective well enclosures, etc. The Town Board, including the Supervisor, will work with the Town Water Department, NYSDOH, and possibly the Adirondack Land Trust to identify and execute these methods.

To provide further source water protection, any public access would be directed at least 200 feet from the supply wells. Any future parking areas are to be safely developed away from wells, with buffer strips intercepting runoff and application of deicing salts not allowed. Finally, signage could be erected to promote safe stewardship of the land.

### 3.1.4 Residential Septic Systems

Residential septic systems are designed to return domestic wastewater to the subsurface. Inadvertently a wide range of household chemicals can be discharged to septic systems. There are numerous septic systems within the Critical Source Area. This plan acknowledges the risks posed by septic systems to groundwater quality.

Expansions of sewer districts are being planned (Plan Element 4a), beginning with Poplar Lane (aka Sewer District #3). The next likely extension would extend sewer service to Vine Street (aka District #4). Eliminating septic systems will benefit groundwater quality in the Critical Source Area.

In addition, for those properties that will continue using septic systems, Plan Element 4b includes public education focusing on proper ways to manage and operate septic systems to minimize non-point source contamination.

### 3.1.5 Managed Road Salt Application and Improved Salt Storage

Plan Element 5 recognizes a quality threat to Bloomington Water District's source water related to salt. This plan provides three strategies aimed at reducing the amount of salt application/risk of contamination in the Critical Source Area. Within this element are three sub-elements listed below as 5a, 5b, and 5c.

Plan element 5a involves upgrading the Town's salt storage and loadout areas that are situated in the Critical Source Area. The salt storage building is in decayed condition and the salt staging and loading area is both uncovered and situated on a breached pavement liner (Figures 1 and 2). Collectively the salt storage and loading area represents a salt transmission pathway to local groundwater within the Critical Source Area.

The goal of plan element 5b is to lower road salt loading in the Critical Source Area. Plan recommendations include development and use of training BMPs and equipment improvements to limit salt wastage, including potential conversion to brine application rather than solid salt use.

Plan element 5c includes improving stormwater management infrastructure within the Critical Source Area to limit stormwater system leakage to groundwater. Stormwater management infrastructure in the Critical Source Area is failing in select locations with breached locations allowing salt-laden winter road runoff to recharge groundwater in the Critical Source Area.



Figure 1. Salt Storage Facilities



Figure 2: Salt and Sand Mixing Area

### 3.1.6 *Promote Awareness of Potential Contaminant Sources*

Until this time, few residents or business owners in the Bloomingtondale Water District were aware that the hamlet center lies in the Critical Source Area for their local public water supply. Now it is apparent that small spills or other discharges of potential contaminants across the hamlet area could influence groundwater quality in the community wells. Plan Element 6a involves education measures to alert hamlet residents that they live over their own water supply recharge area, and to share with them advisory pamphlets, mapping, and educational materials seeking to reduce non-point contaminant activity across the Critical Source Area. Plan Element 6b is similar, but is tailored to specific businesses in the hamlet that may have the potential to contaminate groundwater, such as the specialty wood products enterprise.

### 3.1.7 *Investigating Unexplained PFAS Levels*

Sampling of the Bloomingtondale Water District wells has revealed the presence of select trace PFAS compounds. They are present at low levels, below those of currently regulated standards, but no concentration is preferred so Plan Element 7a involves continued investigation of potential PFAS sources, including regular monitoring. Plan Element 7b involves maintaining heightened awareness of PFAS, including review of PFAS source information, and keeping apprised of current and future PFAS regulations.

## 3.2 Implementation Steps

The recommended implementation steps for each of the planning measures identified by the CAG are sorted by the various plan elements. These plan elements and associated steps are outlined in Table 3.2a in Appendix 1.

## 3.3 Implementation Timeline

Recognizing that it would be difficult and impractical to implement all plan elements simultaneously, the CAG reviewed the plan elements and assigned an approximate implementation schedule for each element. Table 3.1/3.2 in Appendix 1 includes target years and approximate implementation start dates to advance each planning element. The table assigns actions as “Year 1” if they seemed particularly urgent, or if they were quite simple to implement. Actions assigned to “Year 2” and beyond follow the first assigned plan elements.

The implementation timeline portion of Table 3.1/3.2 will be revised in the future to account for potential new funding sources that could aid with methods identified in this plan.

## 4.0 PROGRESSION AND MAINTENANCE

---

### 4.1 Plan Management Team

The CAG recommended the Plan Management Team (PMT) below based on their expertise and likely willingness to work on this initiative. Table 4.1a below shows the Plan Management Team. The Plan Management Team or the Town Board will need to replace those who leave the team as time passes. The PMT will release this plan in a manner that the Town elects does not pose a security-vulnerability risk. Part of the Plan Management Team’s ongoing work will be sharing progress in drinking water protection with the public. Accomplishments in source water protection resulting from the plan

elements described in this report (and other related work) are to be communicated widely to all affected parties since residents and businesses in the Bloomingtondale Water District directly benefit from their local water system wells. Updates will be presented in annual water quality reports, on the Town website, and through other means.

Though not on the PMT, Essex County Planning Department personnel will continue working closely with the Town of St. Armand on projects that are related to aspects of the DWSP2 Plan (principally salt storage and sewer system upgrades).

The Plan Management Team will initially meet monthly to launch implementation of the plan and then may convert to a quarterly meeting schedule, to be set up by the team to discuss the DWSP2 Plan, priorities, and next steps. Progress on plan implementation will be reported periodically to the Town Board, annually at a minimum. A yearly DWSP2 Plan revision schedule is desired. The plan tracker listed as Table 4.1c in Appendix 1 will be utilized to document updates and revisions to the DWSP2 Plan. Until determined otherwise, the chair of the Plan Management Team will be Supervisor Winemiller, who can be contacted by email at [davinastarmand@gmail.com](mailto:davinastarmand@gmail.com).

**Table 4.1a - Plan Management Team**

Name	Relevant Affiliation
Davina Winemiller, Chair	Town Supervisor
Marlene Martin	NYS Department of Health
Donna Whitelaw	Town Board Member (future)
Megan Stevenson	Adirondack Land Trust

## Appendix 1 - Drinking Water Source Protection Program (DWSP2) Plan Data Summary

DWSP2 Plan Checklist.....	1.1
Public Water Supply Information.....	1.2
Table 1.1a – Community Advisory Group Members.....	1.3
Table 1.1b – Community Advisory Group Meetings.....	1.4
Table 1.2a – Vision.....	1.5
Table 1.2b - Source Water Protection Goals.....	1.6
Table 2.1 - Overview of Water System.....	1.7
Table 2.2a - DWSP2 Map Description.....	1.8
Table 2.2b - DWSP2 Map Data Sources.....	1.9
Table 2.3 - Potential Contaminant Source Inventory.....	1.11
Table 3.1/3.2 - Protection and Management Methods & Timeline.....	1.12
Table 3.2a –Implementation Steps.....	1.14
Table 3.3 – Cost Analysis.....	1.17
Table 4.1a – Plan Management Team.....	1.20
Table 4.1b - Plan Management Summary.....	1.21
Table 4.1c - Plan Tracker.....	1.22

<b>DWSP2 Plan Checklist</b>	
<b>Component</b>	<b>Status</b>
<b>Phase 1. Stakeholder Group</b>	<b>Complete</b>
1.1 Form a Stakeholder Group	Complete
1.2 Establish Goals and Formulate a Vision	Complete
<b>Phase 2. Drinking Water Source Assessment</b>	<b>Complete</b>
2.1 Develop an Overview of the Water System	Complete
2.2 Prepare a Drinking Water Source Protection Map	Complete
2.3 Create a Potential Contaminant Source Inventory	Complete
<b>Phase 3. Protection and Implementation Strategies</b>	<b>Complete</b>
3.1 Identify Protection and Management Methods	Complete
3.2 Develop an Implementation Timeline	Complete
<b>Phase 4. Progression and Maintenance</b>	<b>Complete</b>
4.1 Designate a Plan Management Team	Complete

<b>Public Water Supply (PWS) Information</b>	
<b>PWS Name:</b>	Bloomington Water District
<b>PWS ID:</b>	1500275
<b>Type of Sources identified in plan:</b>	Groundwater

### 1.1a - Community Advisory Group

<u>Name</u>	<u>Contact Information</u>		<u>Relevant Affiliation(s)</u>
	<u>Email</u>		
Davina Winemiller	davinastarmand@gmail.com		Supervisor, Town of St. Armand
Cory Skiff (transitioning to Morris Coolidge)	Private		Town Water Department Supervisor
Robert Wick	Private		Essex County Planning Department
Marlene R. Martin	Private		NYS Dept. of Health
Megan Stevenson	Private		Adirondack Land Trust

## 1.1b Stakeholder Group Meetings

<u>Date</u>	<u>Topic(s) Covered</u>
9/30/22	Meeting #1: Discussed the history of the Bloomingdale Water District and wellfield. Reviewed the DWSP2 plan process. Discussed the draft vision, set of draft goals, and potential threats to the water system.
10/27/22	Meeting #2: Prepared a draft vision and goals. Reviewed and edited data summary table tab. 2.1 - overview of the water system. Reviewed and edited the DWSP2 plan areas & potential contaminant sources map.
11/30/22	Meeting #3: Reviewed with water dept. supervisor which wells are operating, locations, and pumping rates. Reviewed the revised map. Discussed the accuracy of underground storage tanks. Reviewed draft list of potential water quality threats.
1/10/23	Meeting #4: Reviewed water system operations. Discussed the presence of PFAS and possible sources. Reviewed water system map.
2/16/2023	Meeting #5: Reviewed and updated goals. Reviewed and discussed existing maps, potential contaminant sources, and potential impacts of contamination.
3/23/2023	Meeting #6: Discussed and drafted protection and management methods regarding unused wells, land ownership, property security, residential septic systems, and road salt.
4/18/2023	Meeting #7: Reviewed and updated draft protection management methods. Discussed emergent contaminant standards, salt storage, and nearby wood products company.
5/5/2023	Meeting #8: Site visit to the Bloomingdale Water District wellfield.
6/22/2023	Meeting #9: Reviewed data summary tables. Expanded language on protection methods and implementation.
8/10/2023	Meeting #10: Discussed updates to maps and expanding language in certain sections. Updated protection and management methods.
9/6/2023	Meeting #11: Finalized protection management methods. Reviewed data summary tables. Discussed funding for implementation, implementation steps, and sewer district extension.
10/12/2023	Meeting #12: Reviewed draft DWSP2 plan. Discussed water system operator. Agreed that plan could be submitted to NYS for review.

## 1.2a Vision

The Town of St. Armand seeks to establish a protection program for the Bloomingdale Water District's drinking water source and recharge area in order to meet the hamlet's long-term water supply needs. This includes managing the recharge area in a sustainable fashion to preserve the associated natural resources for the future.

<b>1.2b Goals</b>	
<b>Goal</b>	1: Comply with regulatory requirements of Part 5, Subpart 5-1 Standards for Water Wells - Appendix 5D for ownership and control around the public wells.
<b>Goal</b>	2: Manage any potential sources of contamination and risks on the wellfield property.
<b>Goal</b>	3: Protect surrounding lands in the recharge area from contributing to potential contamination.
<b>Goal</b>	4: Educate residents and business owners within the recharge area of the importance of this effort and the location of drinking water resources under their homes and places of business.
<b>Goal</b>	5: Explore the introduction of compatible low-impact recreational activities with educational opportunities leading to public awareness of the importance of their water quality.

## 2.1 Overview of the Water System

<b>Water system name:</b>	Bloomingdale Water District #1, Town of St. Armand	
<b>NYS PWS ID:</b>	1500275	
<b>Type of water system (e.g. community, non-community, transient, non-transient):</b>	Community	
<b>Name of the community, or communities, served by the system:</b>	Hamlet of Bloomingdale, Town of St. Armand	
<b>Population served by the system:</b>	950	
<b># of service connections:</b>	250	
<b>Summary of wells, intakes, infiltration galleries, and/or springs including name, depth, screen length and pumping rates where applicable:</b>	Six wells completed in fractured bedrock are in operation on the east side of Sumner Brook. Wells 4, 5, and 6 are used predominantly. Well 3 is used in case of emergency. Each is approximately 300 feet deep and wells 3 - 6 have the capacity of providing between 8 and 30 gallons per minute. New wells have been required over the years as fracture mineralization reduces yields in individual wells. The wells are situated near Sumner Brook but have been evaluated to not be Groundwater Under the Direct Influence (GWUDI) of surface water.	
<b>General treatment information:</b>	Liquid chlorine	
<b>Summary of hydrogeographic setting of drinking water sources including watershed information and/or type of aquifer and aquifer materials (this information may be gathered after delineating protection areas in section 2.2):</b>	The source water protection areas contributing to the Bloomingdale Water District's fractured bedrock wellfield are semi-developed (hamlet of Bloomingdale) and undeveloped, including NYS Forest Preserve located to the north of the wellfield.	
<b>Water quality summary including any known ambient water quality information, finished water detections, and/or history of maximum contaminant level (MCL) violations*:</b>	Annual water quality reports identify no exceedances of drinking water standards. The 2021 annual water quality report indicates that nitrate concentrations were not detected in 2021. Sodium and chloride were present, below standards for chloride and above the lowest guidance value for sodium. Screening samples were collected during all 4 quarters of 2021 for PFOS and PFOA which indicated low levels of Perfluorooctanoic acid (PFOA) present in the water, below standards. Perfluoroheptanoic acid (PFHPA), another related compound was also present and there is no current NYSDOH drinking water standard for this compound. 1,4-dioxane samples were collected during all 4 quarters of 2021 with results below the detection limit.	
<b>Water quantity summary:</b>	Current Water Withdrawal Permit Expiration Date(s): <b>Water withdrawal permit was issued on December 21, 2011 does not include an expiration date.</b>	
	Total Permitted Water Withdrawal Capacity: <b>The permitted water withdrawal capacity is not identified in the permit</b>	MGD
	Average Daily Water Demand ( = Yearly Usage / 365)	0.05 MGD
	Maximum Daily Water Demand (Unofficial 3-day average in peak month - e.g. July)	0.12 MGD
	Daily Water Losses (taken from Water Withdrawal Reporting Form)	0.001 MGD

\*Refer to "Sources of Water Quality Information" in Drinking Water Source Assessment Resource Kit

## 2.2a Drinking Water Source Protection Map

Protection Areas	Description	Delineation Method
Ownership and Control Area	<p>The PWS wellfield lies on a wooded parcel owned by Paul Smith's College. The parcel has been promised to the municipality for ownership. When this transfer occurs is unknown but at that time the ownership (100 feet) and most control (200 feet) will be satisfied. Some wells are more than 100 feet but less than 200 feet from Sumner Creek, which is the property boundary.</p>	Parcel boundaries
Critical Source Area	<p>Site wells are installed in fractured bedrock northeast of the Sumner Brook. Wellhead elevations are no more than approximately 30 feet above creek elevation. The wells are 300 feet deep and limited available well test data confirm that water levels in operational wells are routinely drawn down more than 150 feet below grade, suggesting they can capture groundwater from both sides of Sumner Brook. No pumping tests were available confirming a static radius of influence established around the wells in routine use so based on experience in other fractured bedrock environments and using topographic hydrogeologic mapping, an estimated area was mapped east and west of Sumner Brook. The total enclosed area, approximately 50 acres, is sufficient to satisfy the water withdrawal budget.</p>	Hydrogeologic mapping
Extended Source Area	<p>The recharge area estimated above is limited, with no substantial supplemental upgradient area, therefore it is recommended that the full recharge area be managed as the Critical Source Area, wherein the maximum reasonably-expected groundwater travel time from the point of precipitation/infiltration to the point of well water extraction is unlikely to exceed 5 years in any part of the recharge area. <b>There is no Extended Source Area delineated.</b></p>	Hydrogeologic mapping

**2.2b Drinking Water Source Protection Map Layers**

Layer	Date Created or Acquired	Description
Bulk Storage Facilities - New York State (NYSDEC)	8/16/2022	Bulk Storage Facilities - New York State (NYSDEC) Obtained from NYS GIS Clearinghouse - NYS Dept. of Environmental Conservation (DEC) - Bulk Storage Sites in New York State. Source: NYS Department of Environmental Conservation, 2010. Files updated daily.
Major Oil Storage Facilities	8/16/2022	Major Oil Storage Facilities Obtained from NYS GIS Clearinghouse - NYS Dept. of Environmental Conservation (DEC) - Bulk Storage Sites in New York State. Source: NYS Department of Environmental Conservation, 2010. Files updated daily.
Petroleum Bulk Storage Facilities (i.e. gas stations)	8/16/2022	Petroleum Bulk Storage Facilities (i.e. gas stations) Obtained from NYS GIS Clearinghouse - NYS Dept. of Environmental Conservation (DEC) - Bulk Storage Sites in New York State. Source: NYS Department of Environmental Conservation, 2010. Files updated daily.
Active Landfills	8/16/2022	<a href="https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8">Active Landfills</a> Obtained from <a href="https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8">https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8</a> Source: NYS Department of Environmental Conservation, April 7, 2022.
Inactive Landfills (Title 12)	8/26/2022	Inactive Landfills (Title 12). Obtained from NYSDEC Email 8/26/2022. Source: NYS Department of Environmental Conservation, June 24, 2022
Land Application Sites	8/19/2022	<a href="https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8">Land Application Sites</a> Obtained from <a href="https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8">https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8</a> Source: NYS Department of Environmental Conservation, April 7, 2022
Vehicle Dismantling Facilities (i.e. junk yards)	8/19/2022	<a href="https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8">Vehicle Dismantling Facilities (i.e. junk yards)</a> Obtained from <a href="https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8">https://data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8</a> Source: NYS Department of Environmental Conservation, April 7, 2022
Environmental Remediation Site Boundaries	8/16/2022	<a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1097">Environmental Remediation Site Boundaries</a> Obtained from <a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1097">http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1097</a> Source: New York State Department of Environmental Conservation, updated nightly. Downloaded 8/16/2022
Environmental Remediation Sites (Superfund Sites, Brownfield Sites, etc.)	8/16/2022	<a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1097">Environmental Remediation Sites (Superfund Sites, Brownfield Sites, etc.)</a> Obtained from <a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1097">http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1097</a> Source: New York State Department of Environmental Conservation, 2010. Files updated daily
Spill Incidents	8/22/2022	<a href="https://data.ny.gov/Energy-Environment/Spill-Incidents/u44d-k5fk">Spill Incidents</a> Obtained from <a href="https://data.ny.gov/Energy-Environment/Spill-Incidents/u44d-k5fk">https://data.ny.gov/Energy-Environment/Spill-Incidents/u44d-k5fk</a> Source: New York State Department of Environmental Conservation, Division of Environmental Remediation, 2015. Files updated daily.
Oil, Gas, and Other Regulated Wells	8/22/2022	<a href="https://www.dec.ny.gov/energy/1603.html">Oil, Gas, and Other Regulated Wells</a> Obtained from <a href="https://www.dec.ny.gov/energy/1603.html">https://www.dec.ny.gov/energy/1603.html</a> Source: NYS Department of Environmental Conservation. Files updated nightly.
Orphan Oil and Gas Wells	8/19/2022	<a href="https://data.ny.gov/Energy-Environment/Orphan-Wells/vgqe-bamz">Orphan Oil and Gas Wells</a> Obtained from <a href="https://data.ny.gov/Energy-Environment/Orphan-Wells/vgqe-bamz">https://data.ny.gov/Energy-Environment/Orphan-Wells/vgqe-bamz</a> Source: NYS Department of Environmental Conservation, December 16, 2021.
Mines	8/19/2022	<a href="https://www.dec.ny.gov/lands/5374.html">Mines</a> Obtained from <a href="https://www.dec.ny.gov/lands/5374.html">https://www.dec.ny.gov/lands/5374.html</a> Source: NYS Department of Environmental Conservation, 2022. Files updated nightly.
State Pollutant Discharge Elimination System Permitted (SPDES) Facilities	8/17/2022	<a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1010">State Pollutant Discharge Elimination System Permitted (SPDES) Facilities</a> Obtained from <a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1010">http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1010</a> Source: New York State Department of Environmental Conservation, revised August 2022.
Combined Sewer Overflows (CSO's)	8/19/2022	<a href="https://www.dec.ny.gov/chemical/48595.html">Combined Sewer Overflows (CSO's)</a> Obtained from <a href="https://www.dec.ny.gov/chemical/48595.html">https://www.dec.ny.gov/chemical/48595.html</a> Source: New York State Department of Environmental Conservation, Division of Mineral Resources, November 10, 2020
Airports of the United States, Puerto Rico, and Virgin Islands.	8/19/2022	<a href="https://ais.faa.opendata.arcgis.com/datasets/6747ab91a11045e8b3f8a3ef093d3b5_0/explorer?location=5.669367%2C-1.633886%2C-71&amp;showTable=true">Airports of the United States, Puerto Rico, and Virgin Islands.</a> Obtained from <a href="https://ais.faa.opendata.arcgis.com/datasets/6747ab91a11045e8b3f8a3ef093d3b5_0/explorer?location=5.669367%2C-1.633886%2C-71&amp;showTable=true">https://ais.faa.opendata.arcgis.com/datasets/6747ab91a11045e8b3f8a3ef093d3b5_0/explorer?location=5.669367%2C-1.633886%2C-71&amp;showTable=true</a> Source: Federal Aviation Administration, Aeronautical Information Services, July 14, 2022.
NYS Railroads	8/17/2022	<a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=904">NYS Railroads</a> Obtained from <a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=904">https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=904</a> Source: New York State Department of Transportation, 2013
North American Rail Lines	8/19/2022	<a href="https://data.usdot.opendata.arcgis.com/datasets/usdot:north-american-rail-lines-1/about">North American Rail Lines</a> Obtained from <a href="https://data.usdot.opendata.arcgis.com/datasets/usdot:north-american-rail-lines-1/about">https://data.usdot.opendata.arcgis.com/datasets/usdot:north-american-rail-lines-1/about</a> Source: USDOT BTS, July 22, 2022.
Hazmat Routes	8/19/2022	<a href="https://koordinates.com/layer/22794-us-hazmat-routes/">Hazmat Routes</a> Obtained from <a href="https://koordinates.com/layer/22794-us-hazmat-routes/">https://koordinates.com/layer/22794-us-hazmat-routes/</a> Source: US Bureau of Transportation Statistics (BTS), August 28, 2018
Road Maintenance Facilities (NYS DOT Facilities)	11/1/2021	<a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=391">Road Maintenance Facilities (NYS DOT Facilities)</a> Obtained from <a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=391">https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=391</a> Source: NYSDOT October 2020
Salt and Deicers Storage (NYS DOT Facilities)	11/1/2021	<a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=391">Salt and Deicers Storage (NYS DOT Facilities)</a> Obtained from <a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=391">https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=391</a> Source: NYSDOT October 2020
Petroleum Product Pipelines	8/19/2022	<a href="https://www.eia.gov/maps/layer_info-m.php">Petroleum Product Pipelines</a> Obtained from <a href="https://www.eia.gov/maps/layer_info-m.php">https://www.eia.gov/maps/layer_info-m.php</a> Source: Created by EIA using publicly available data. 4/28/2020
Natural Gas Interstate and Intrastate Pipelines	8/19/2022	<a href="https://www.eia.gov/maps/layer_info-m.php">Natural Gas Interstate and Intrastate Pipelines</a> Obtained from <a href="https://www.eia.gov/maps/layer_info-m.php">https://www.eia.gov/maps/layer_info-m.php</a> Source: Collected by EIA from Federal Energy Regulatory Commission (FERC) and other external sources. 4/28/2020
HGL Pipelines	8/19/2022	<a href="https://www.eia.gov/maps/layer_info-m.php">HGL Pipelines</a> Obtained from <a href="https://www.eia.gov/maps/layer_info-m.php">https://www.eia.gov/maps/layer_info-m.php</a> Source: Collected by EIA from Federal Energy Regulatory Commission (FERC) and other external sources. 4/28/2020
Crude Oil Pipelines	8/19/2022	<a href="https://www.eia.gov/maps/layer_info-m.php">Crude Oil Pipelines</a> Obtained from <a href="https://www.eia.gov/maps/layer_info-m.php">https://www.eia.gov/maps/layer_info-m.php</a> Source: Collected by EIA from Federal Energy Regulatory Commission (FERC) and other external sources. 4/28/2020
NYS Water Withdrawals	8/19/2022	<a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1265">NYS Water Withdrawals</a> Obtained from <a href="https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1265">https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1265</a> Source: DOW - Bureau of Water Resource Management, January 2022
New York State Boat Launches	9/6/2022	<a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1268">New York State Boat Launches</a> Obtained from <a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1268">http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1268</a> Source: New York State Department of Environmental Conservation, 2009. Revised May 2021
Boat Launch Sites by State Parks or Marine Facility	9/6/2022	<a href="https://data.ny.gov/Recreation/Boat-Launch-Sites-by-State-Parks-or-Marine-Facility/2ggg-hlkh">Boat Launch Sites by State Parks or Marine Facility</a> Obtained from <a href="https://data.ny.gov/Recreation/Boat-Launch-Sites-by-State-Parks-or-Marine-Facility/2ggg-hlkh">https://data.ny.gov/Recreation/Boat-Launch-Sites-by-State-Parks-or-Marine-Facility/2ggg-hlkh</a> Source: New York State Office of Parks, Recreation and Historic Preservation, December 7, 2020
USGS National Land Cover Data (NLCD) (2019)	7/23/2021	<a href="https://www.mrlc.gov/data?%5B%5D=category%3ALand%20Cover&amp;%5B%5D=category%3ALand%20Cover&amp;%5B%5D=year%3A2019">USGS National Land Cover Data (NLCD) (2019)</a> Obtained from <a href="https://www.mrlc.gov/data?%5B%5D=category%3ALand%20Cover&amp;%5B%5D=category%3ALand%20Cover&amp;%5B%5D=year%3A2019">https://www.mrlc.gov/data?%5B%5D=category%3ALand%20Cover&amp;%5B%5D=category%3ALand%20Cover&amp;%5B%5D=year%3A2019</a> Source: National Land Cover Database 2019 (NLCD2019)
NLCD Percent Developed Imperviousness (2019)	7/23/2021	<a href="https://www.mrlc.gov/data?%5B%5D=category%3ALand%20Cover&amp;%5B%5D=category%3ALand%20Cover&amp;%5B%5D=year%3A2019">NLCD Percent Developed Imperviousness (2019)</a> Obtained from <a href="https://www.mrlc.gov/data?%5B%5D=category%3ALand%20Cover&amp;%5B%5D=category%3ALand%20Cover&amp;%5B%5D=year%3A2019">https://www.mrlc.gov/data?%5B%5D=category%3ALand%20Cover&amp;%5B%5D=category%3ALand%20Cover&amp;%5B%5D=year%3A2019</a> Source: National Land Cover Database 2019 (NLCD2019)
Toxic Release Inventory (TRI) Facilities	8/19/2022	<a href="https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-present">Toxic Release Inventory (TRI) Facilities</a> Obtained from <a href="https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-present">https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-present</a> Source: EPA, July 20, 2020

**2.2b Drinking Water Source Protection Map Layers**

Layer	Date Created or Acquired	Description
Nutrient Loading (Lakes Only) (The Waterbody Inventory /Priority Waterbodies List)	9/8/2022	<a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1117">Nutrient Loading (Lakes Only) (The Waterbody Inventory /Priority Waterbodies List) Obtained from http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1117. Source: NYS Department of Environmental Conservation, Division of Water, Bureau of Water Assessment and Management, 2007. Revised March 2020.</a>
National Hydrology Dataset (NHD)	9/8/2022	<a href="https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products">National Hydrology Dataset (NHD) Obtained from https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products Source: USGS NHD Data August 12, 2022.</a>
Septic Systems	9/8/2022	<a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1300">Data on Private Sewer Systems in NYS Tax Parcels (Centroids) for Onondaga and Essex Counties data. Obtained from http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1300 Source: NYS GIS Program Office (GPO)</a>
Waterfront Property Management	9/8/2022	<a href="http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1300">Data on Waterfront Property Management in NYS Tax Parcels (Centroids) for Cayuga, Cortland, Onondaga and Tompkins Counties data under PROPCLASS category. Obtained from http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1300 Source: NYS GIS Program Office (GPO)</a>
SSURGO	10/4/2022	<a href="https://www.arcgis.com/home/item.html?id=c4c49b663ea54dd2977f3f2853e07ff">Data on Soil Survey Geographic Database. Obtained from https://www.arcgis.com/home/item.html?id=c4c49b663ea54dd2977f3f2853e07ff. National Resources Conservation Service (NRCS). 2017. Updated February 14, 2022</a>

### 2.3 Potential Contaminant Source Inventory

Potential Source	Contaminant Category	Specific Contaminant(s) of Concern	Protection Area(s) Impacted	Relevant Information
Septic systems	Chemical and microbiological	Nitrate, bacteria, virus, trace personal care chemicals/micro-pharmaceuticals, potential illicit disposal of hazardous chemicals to septic systems. Water softener backwash salt.	Critical Source Area	Only limited residences and businesses in the Critical Source Area rely on septic systems. Many properties are connected to local sewer collection system and more interconnections are planned, which will further reduce the number of septic systems in the Critical Source Area. No septic systems exist on the wellfield property.
Road salt applied to roads and stored at a Town salt storage facility.	Chemical	Sodium and chloride	Critical Source Area	The Town salt storage facility is situated at the margins of the Critical Source Area. Salt is not covered, but stored on a semi-impermeable (paved) surface with drainage directed out of the Critical Source Area and downgradient of the wellfield, reducing salt storage hazard to the wellfield. Application the road salt to roads in the Critical Source Area is a recognized salt budget likely influencing groundwater quality reaching the wells.
Private properties activities at both residential and limited commercial properties including a specialty wood products enterprise.	Chemical	Wide range of potential contaminants, potentially including PFOA and PFHPA, solvents, oil/grease, heavy metals, petroleum, etc.	Critical Source Area	Non-point low-level contaminant dispersal from a wide range of private property uses may influence groundwater quality in the community wells. No precise source of PFOA or PFHPA has been identified. Potential sources of contaminants could be from: equipment/vehicle maintenance, repair, and storage; vehicle fueling; waste disposal.
Vulnerability of springs and unused wells to accidents and intentional acts.	Chemical and microbiological	Various potential contaminants could be introduced into the abandoned and unused wells.	Ownership and Control Area	Historic overburden spring caisson wells and unused site bedrock wells present vertical pathway threats to the current bedrock supply wells. If not corrected, such older springs/wells are vulnerable to accidental or intentional contamination.
Lack of adequate fencing for security purposes.	Chemical and microbiological	Accidental or intentional release concerns.	Ownership and Control Area	General wellfield security measures are recommended to limit the potential for accidental or intentional contaminant releases to the wellfield.
Underground petroleum storage tanks	Chemical	Petroleum	Areas just south of the Critical Source Area	Two registered petroleum bulk storage tanks are listed in NYSDEC data bases immediately south of the Critical Source Area. The Town Supervisor has conferred with the owners of both properties and confirmed both underground storage tanks have been previously removed. There is the possibility for privately owned properties to have domestic underground storage tanks. Greater probability to be heating oil and the less likely to dissolve into groundwater (weak tendency to dissolve).

**3.1 Protection and Management Methods & 3.2 Develop an Implementation Strategy Timeline**

Priority Rank	Priority Issue	Targeted Potential Contaminant Source(s)	Goal	Protection Method and/or Management Method	Potential Cost	Potential Funding Sources	Project Leader and Partnerships Needed	Implementation Timing	Representative Implementation Start Date
Higher	Lack of ownership and control around public water supply wells	Accidental releases (leaks, etc.) Potential contaminant sources from new development (spills, salt, etc.)	Comply with regulatory requirements for ownership and control around the public wells (Part 5, Subpart 5-1 Standards for Water Wells - Appendix 5D).	<b>Wellfield property ownership.</b> 1. Purchase the wellfield parcel (Tax Map No. 13.57-1-2.000) from Paul Smith's College.	\$549,950	The NYSDEC WQIP Land Acquisition Projects for Source Water Protection Program could be applied to through the Consolidated Funding Application (CFA). 25% percent local match required.	Town of St. Armand Supervisor assisted by Adirondack Land Trust	Year 1 (1-2 years to implement)	6/2024
Moderate	Sanitary protection of springs and unused wells	Accidental releases	Manage any potential sources of contamination and risks on the wellfield property.	<b>Improve sanitary protection of springs and unused wells.</b> 2. Reduce the risk from vertical pathways to fractured bedrock aquifer.	\$6,500	Town (water district) operating funds	Town of St. Armand Water Department and Town Supervisor	Year 1	6/2024
	Property security	Accidental releases Vandalism	Manage any potential sources of contamination and risks on the wellfield property.  Explore the introduction of compatible low-impact recreational activities with educational opportunities leading to public awareness of the importance of their water quality.	<b>Improve Wellfield Security</b> 3. Installation of security fencing and/or protective enclosures around the wells and along the control (generator/electrical) building. Restrict any future public access a safe distance from supply wells.	\$18,000	Town (water district) operating funds	Town of St. Armand Water Department and Town Supervisor. Potential assistance from the Adirondack Land Trust.	Year 3 (after land acquisition)	4/2026
Lower	Residential septic systems	Nitrate, microbiologicals	Protect surrounding lands in the recharge area from contributing to potential contamination.	<b>Address failing septic systems.</b> 4a. Increase the number of sewer districts to decrease residential septic system use.	\$14,665,000	Clean Water State Revolving Fund and/or other funding sources (WIA, WQIP, CDBG)	Town of St. Armand Sewer Department, Town of St. Armand Supervisor and Town Board	Year 1 (1-5 years to implement)	9/2024
		Trace personal care chemicals/micro-pharmaceuticals Disposal of chemicals to septic systems Water softener backwash salt	Educate residents and business owners within the recharge area of the importance of this effort and the location of drinking water resources under their homes and places of business.	<b>Improve the performance of septic systems.</b> 4b. Septic system operation and maintenance education.	\$1,400	Town funds for education materials, negotiating discounts for septic tank pumping.	Town of St. Armand Water and Sewer Department, Town Board, Town Clerk.	Year 1, ongoing	8/2024
Moderate	Road salt applied to roads and salt runoff from salt storage facility	Sodium, chloride	Protect surrounding lands in the recharge area from contributing to potential contamination.	<b>Reduce road salt runoff from salt storage facility.</b> 5a. Upgrade the Town's salt storage and loadout areas.	\$648,960	The NYSDEC WQIP Salt Storage Program through the Consolidated Funding Application (CFA).	Town of St. Armand Supervisor, Town Board, Town Highway Dept.	Year 1 (1-2 years to implement)	08/2024
				<b>Reduce road salt applied to selected roads, while still ensuring public safety.</b> 5b. Lower road salt loading in the Critical Source Area without reducing driving safety.	\$2,500	Town funds	Town of St. Armand Highway Dept. in partnership with County Highway Dept., and Town Board	Year 1, ongoing	10/2024
				<b>Limit stormwater system leakage to groundwater.</b> 5c. Improve the stormwater management infrastructure within the Critical Source Area.	\$600,000	NYSDEC WQIP Nonagricultural Nonpoint Source Abatement and Control Program or the NYSEFC Green Innovation Grant Program through the Consolidated Funding Application (CFA).	Town of St. Armand Highway Department, County Highway Dept., and Town Board.	Year 3	6/2026
Lower	Activities at residential and commercial properties in hamlet area including a specialty wood products enterprise	Low level releases at wide range of potential contaminants, potentially including PFOA and PFHPA, solvents, oil/grease, heavy metals, petroleum, etc.	Protect surrounding lands in the recharge area from contributing to potential contamination.  Educate residents and business owners within the recharge area of the importance of this effort and the location of drinking water resources under their homes and places of business	<b>Address activities at residential properties.</b> 6a. Promote homeowner awareness of potential contaminant sources in hamlet.	\$700	Town funds, Smart Growth Comprehensive Planning Grant Program funds	Town of St. Armand- Town Board in coordination with their Comprehensive Plan Update Committee. Town Clerk.	Year 1, ongoing	8/2024
				<b>Address activities at commercial properties.</b> 6b. Promote awareness of business owners of the potential for contamination in hamlet.	\$525			Year 1, ongoing	8/2024

**3.1 Protection and Management Methods & 3.2 Develop an Implementation Strategy Timeline**

Priority Rank	Priority Issue	Targeted Potential Contaminant Source(s)	Goal	Protection Method and/or Management Method	Potential Cost	Potential Funding Sources	Project Leader and Partnerships Needed	Implementation Timing	Representative Implementation Start Date
Moderate	Unexplained PFAS levels below current regulated standards.	PFOA and PFHPA	Protect surrounding lands in the recharge area from contributing to potential contamination.	<b>Continued investigation of potential PFAS sources.</b> 7a. Regular monitoring and review of available analytical data.	\$3,200	Town (water district funds)	Town of St. Armand Town Board and NYSDOH	Year 1, ongoing	6/2024
			Educate residents and business owners within the recharge area of the importance of this effort and the location of drinking water resources under their homes and places of business	<b>Heightened awareness of PFAS.</b> 7b. Keep apprised of current and future PFAS regulations and address any potential identified sources of PFAS contamination.	\$1,000	Town funds	Town of St. Armand Town Board	Year 1, ongoing	6/2024

# APPENDIX 3.2A

## IMPLEMENTATION STEPS

### Protection Strategy 1: Wellfield Property Ownership

---

- 1. Purchase the wellfield parcel (Tax Map No. 13.57-1-2.000) from Paul Smith's College.**
  1. Partner with Adirondack Land Trust to approach Paul Smith's College to initiate formal discussions and prepare for the NYSDEC WQIP Land Acquisition for Source Water Protection application through the Consolidated Funding Application (CFA) process.
  2. Negotiate purchase and sale agreement.
  3. Complete due diligence: potential need to update the Town's appraisal, complete survey, comply with SEQRA, title, etc.
  4. Confirm any local match required by the grant program with ADK Land Trust assistance.
  5. Utilize the information gathered and fill out a NYSDEC WQIP Land Acquisition for Source Water Protection application when available through the CFA.
  6. When the WQIP Land Acquisition grant is received, acquire the parcel.

### Protection Strategy 2: Improve Sanitary Protection of Springs and Unused Wells

---

- 2. Reduce the Risk from Vertical Pathways to Fractured Bedrock Aquifer**
  1. Purchase and install sanitary locking well caps to secure unused bedrock wells.
  2. The walls of the former caisson (dug) wells are to be removed or excavated to at least four feet below ground level. The former caisson wells will be back filled with clean soil and the soil compacted.
  3. After back filling, the area will be graded and seeded to ensure drainage is away from the abandoned well location.

### Protection Strategy 3: Improve Wellfield Security

---

- 3. Utilize Security Measures Around Wells and Structure**
  1. Investigate the costs of installing security fencing and/or protective enclosures around the wells and along the control (generator/electrical) building.
  2. Explore possible funding sources for security measures.
  3. After land purchase, install the fencing and/or enclosures.
  4. Site any future public access trails to avoid 200 feet of supply wells.
  5. Ensure that any parking areas are safely developed away from wells, buffer strips intercept runoff, and application of deicing salts are not allowed.
  6. Erect signage to promote stewardship of land (no disposal, littering, etc.).

### Protection Strategy 4: Residential Septic Systems

---

- 4a. Increase the Sewer Districts to Decrease Residential Septic System Use**
  1. Establish the Poplar Lane Sewer District #3.
  2. Include the forecasted project costs from the Map, Plan, and Report (\$420K+) and apply for funding to the NYSEFC Clean Water State Revolving Fund and/or other funding sources (WIIA, WQIP, CDBG, etc.).

3. Continue funding applications to expand the capacity of the wastewater treatment plant to allow for additional capacity for expansion.
4. Develop priority list for further expansions based upon severity of septic system problems (likely Vine Street – District #4), followed by Whiteface Lane, Maple Street, etc.
5. Continue documenting the need for sewer district expansion (i.e. failure of septic systems).

#### **4b. Septic System Education**

1. Compile a list of properties on septic systems within the Critical Source Area.
2. Distribute educational materials to property owners on the compiled list that focus on proper ways to manage and operate septic systems (i.e. what not to dump down drains, how often to pump septic tanks, etc.).
3. Town helps negotiate discounts for septic tank pump outs.

### **Protection Strategy 5: Road Salt Applied to Roads and Salt Runoff from Salt Storage Facility**

---

#### **5a. Upgrade the Town's Salt Storage and Loadout Areas**

1. Supervisor and Town officials will gather necessary information to replace the existing salt storage building with a new permanent structure to cover salt or salt/sand mixture storage piles. If necessary, assistance from the County and/or a consultant may be requested.
2. Utilize the gathered information and fill out a NYSDEC WQIP Salt Storage application.
3. If the NYSDEC WQIP Salt Storage grant is received, initiate the project.
4. Construction of access road and impervious pad surrounding structure necessary to load and unload salt is to accompany the construction of the salt storage structure.

#### **5b. Reduce Road Salt Loading in the Critical Source Area**

1. Develop and train on BMPs.
2. Consider signage in the Critical Source Area.
3. Equipment improvements to limit salt wastage.
4. Investigate potential conversion to brine application rather than solid salt use.

#### **5c. Improvements to Stormwater Management Infrastructure**

1. Identify areas of the stormwater conveyance system needing repair in the Critical Source Area, such as: areas where the system leaks; areas where catch basins are not constructed or functioning correctly; and where there is a lack of curbing, etc.
2. Create the conceptual plans for repairing stormwater conveyance system.
3. Using available local funds, repair breached locations.
4. If necessary, apply for funding through the NYSDEC WQIP Nonagricultural Nonpoint Source Abatement and Control program, NYSEFC Green Innovation Grant Program, or other sources to correct remaining deficiencies.

### **Protection Strategy 6: Activities at Residential and Commercial Properties in Hamlet Area**

---

#### **6a. Promote Awareness of Potential Contaminant Sources for Residents**

1. Share findings of the DWSP2 plan with the public to alert hamlet residents that they live over their own water supply recharge area.
2. Develop and/or share advisory pamphlets, mapping, and educational materials that seek to reduce the risks associated with potential contamination sources by promoting best management practices.
3. Note continuing drinking water source protection efforts in Annual Water Quality Reports, Town website, and other means.

**6b. Promote Awareness of Potential Contaminant Sources for Business Owners**

1. Inventory business properties within the Critical Source Area of the hamlet.
2. Research BMPs for the identified business types.
3. Develop and/or share advisory pamphlets, mapping, and educational materials that seek to reduce the risks associated with potential contamination sources by promoting best management practices.

**Protection Strategy 7: Unexplained PFAS Levels Below Current Regulated Standards.**

---

**7a. Continued Investigation of Potential PFAS Sources**

1. Regular monitoring, including sampling of Sumner Brook.
2. Review available analytical data regarding PFAS contamination at Lake Clear (Adirondack Regional) Airport, including surface water testing results.

**7b. Heightened Awareness of PFAS**

1. Keep apprised of current and future PFAS regulations.
2. Review PFAS source information and address any potential identified sources of contamination.

**Table 3.3 - Cost Analysis**

Applicable Protection Method and/or Management Method	Task Requirements, for either entire assignment or per year (indicate which)	Weekly Hourly Requirements from Municipal personnel	Total Hours Required from Municipal personnel over period	Labor Cost per Hour (NYS DOL Wages)	Cost of total hours required from municipal personnel, including 50% for benefits	Non-Personnel Costs (e.g. equipment/materials, land, hardware, consultants)		Total Potential Cost	
Wellfield property ownership. 1. Purchase the wellfield parcel (Tax Map No. 13.57-1-2.000) from Paul Smith's College.	Partner with Adirondack Land Trust to approach Paul Smith's College to initiate formal discussions. Negotiate purchase and sale agreement. If necessary, update the Town's appraisal, complete survey, comply with SEQRA, title, etc. Confirm any local match required by the grant program with ADK Land Trust assistance. Fill out a WQIP Land Acquisition application. When the WQIP Land Acquisition grant is received, acquire the parcel.	One time effort	6	60	\$ 55.00	\$4,950	\$ 545,000	Cost of land, survey, title prep., consultant fees, etc.	\$549,950
Improve sanitary protection of springs and unused wells. 2. Reduce the risk from vertical pathways to fractured bedrock aquifer.	Purchase and install sanitary locking well caps to secure unused bedrock wells. The walls of the former caisson (dug) wells are to be removed. The former wells should be back filled with clean soil and the soil should be compacted. After back filling, the area will be graded and seeded to ensure drainage is away from the abandoned well location.	One time effort	4	15	\$ 55.00	\$1,238	\$ 5,262	Locking sanitary well caps, clean fill	\$6,500
Improve Wellfield Security 3. Installation of security fencing and/or protective enclosures around the wells and along the control (generator/electrical) building. Restrict any future public access a safe distance from supply wells.	Investigate the costs of installing security fencing and/or protective enclosures around the wells and along the control (generator/electrical) building. After land purchase and prior to public access, install the fencing and/or enclosures.	One time effort	4	91	\$ 55.00	\$7,500	\$ 10,500	Fencing and well enclosures	\$18,000

**Table 3.3 - Cost Analysis**

Applicable Protection Method and/or Management Method	Task Requirements, for either entire assignment or per year (indicate which)	Weekly Hourly Requirements from Municipal personnel	Total Hours Required from Municipal personnel over period	Labor Cost per Hour (NYS DOL Wages)	Cost of total hours required from municipal personnel, including 50% for benefits	Non-Personnel Costs (e.g. equipment/materials, land, hardware, consultants)		Total Potential Cost	
Address failing septic systems. 4a. Increase the number of sewer districts to decrease residential septic system use.	Establish the Poplar Lane Sewer District #3. Apply for funding to the Clean Water State Revolving Fund and/or other funding sources (WIIA, WQIP, CDBG, etc.). Continue funding applications to expand the capacity of the wastewater treatment plant to allow for additional capacity for expansion. Develop priority list for further expansions based upon severity of septic system problems. Continue documenting the need for sewer district expansion (i.e. failure of septic systems).	Multiple years	4	182	\$ 55.00	\$15,000	\$ 14,650,000	Construction, construction inspection, engineering, legal, administration	\$14,665,000
Improve the performance of septic systems. 4b. Septic system operation and maintenance education.	Compile a list of properties on septic systems within the Critical Source Area. Distribute educational materials to property owners on the compiled list. Potentially offer incentives for septic tanks pump outs.	On-going basis	0.5	12	\$ 55.00	\$990	\$ 410	Copying and mailing costs	\$1,400
Reduce road salt runoff from salt storage facility. 5a. Upgrade the Town's salt storage and loadout areas.	Gather necessary information and apply for funds to replace the existing salt storage building with a new permanent structure to cover salt or salt/sand mixture storage piles. Utilize the gathered information and fill out a WQIP Salt Storage application. If the WQIP salt storage grant is received, initiate the project. Line the salt staging and loading area with an impermeable surface pavement liner during construction of salt storage structure.	One time effort	2	48	\$ 55.00	\$3,960	\$ 645,000	Planning, design, administrative, construction, and construction oversight costs	\$648,960
Reduce road salt applied to selected roads, while still ensuring public safety. 5b. Lower road salt loading in the Critical Source Area without reducing driving safety.	Develop and train on BMPs. Consider signage within Critical Source Area. Plan equipment improvements to limit salt wastage. Investigate potential conversion to brine application rather than solid salt use.	On-going basis	0.5	24	\$ 55.00	\$1,980	\$ 520	Development of BMP information; signage	\$2,500

**Table 3.3 - Cost Analysis**

Applicable Protection Method and/or Management Method	Task Requirements, for either entire assignment or per year (indicate which)	Weekly Hourly Requirements from Municipal personnel	Total Hours Required from Municipal personnel over period	Labor Cost per Hour (NYS DOL Wages)	Cost of total hours required from municipal personnel, including 50% for benefits	Non-Personnel Costs (e.g. equipment/materials, land, hardware, consultants)		Total Potential Cost	
Limit stormwater system leakage to groundwater. 5c. Improve the stormwater management infrastructure within the Critical Source Area.	Identify areas of the stormwater conveyance system needing repair in the Critical Source Area. Create the conceptual plans for repairing stormwater conveyance system. Using available local funds, repair breached locations. If necessary, apply for funding through the WQIP Nonagricultural Nonpoint Source Abatement and Control program, NYSEFC Green Innovation Grant Program, or other sources to correct remaining deficiencies.	Multiple years (3-5 years)	1	300	\$ 55.00	\$24,750	\$ 575,250	Planning, design, and repair of stormwater infrastructure	\$600,000
Address activities at residential properties. 6a. Promote homeowner awareness of potential contaminant sources in hamlet.	Share advisory pamphlets, mapping, and educational materials seeking to reduce the risks associated with potential contamination sources by promoting best management practices. Promote awareness of source water protection for individuals and groups entering or recreating on the wellfield site.	On-going basis	0.5	7	\$ 55.00	\$578	\$ 122	Copying and mailing costs	\$700
Address activities at commercial properties. 6b. Promote awareness of business owners of the potential for contamination in hamlet.	Share advisory pamphlets, mapping, and educational materials seeking to reduce the risks associated with potential contamination sources by promoting best management practices.	On-going basis	0.5	5	\$ 55.00	\$413	\$ 112	Copying and mailing costs	\$525
Continued investigation of potential PFAS sources. 7a. Regular monitoring and review of available analytical data.	Regular monitoring, including sampling of Sumner Brook. Review available analytical data regarding PFAS contamination at Lake Clear (Adirondack Regional) Airport, including surface water testing results.	On-going basis	0.5	20	\$ 55.00	\$1,650	\$ 1,550	Laboratory costs	\$3,200
Heightened awareness of PFAS. 7b. Keep apprised of current and future PFAS regulations and address any potential identified sources of PFAS contamination.	Keep apprised of current and future PFAS regulations. Review PFAS source information and address any potential identified sources of contamination.	On-going basis	0.5	12	\$ 55.00	\$1,000	\$ -	N/A	\$1,000

### 4.1a Plan Management Team

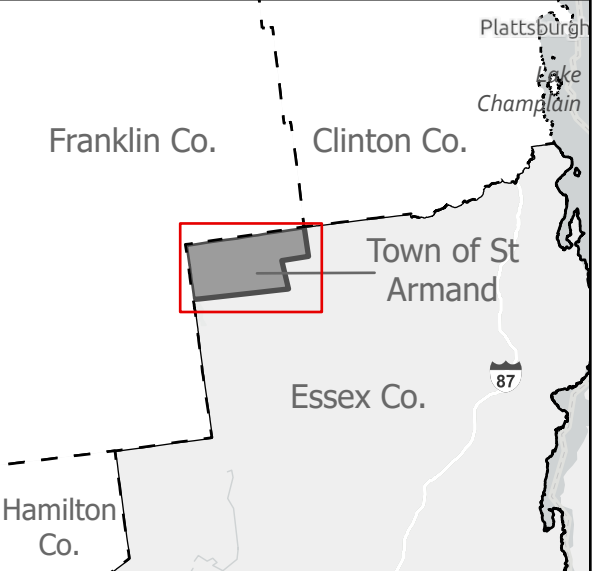
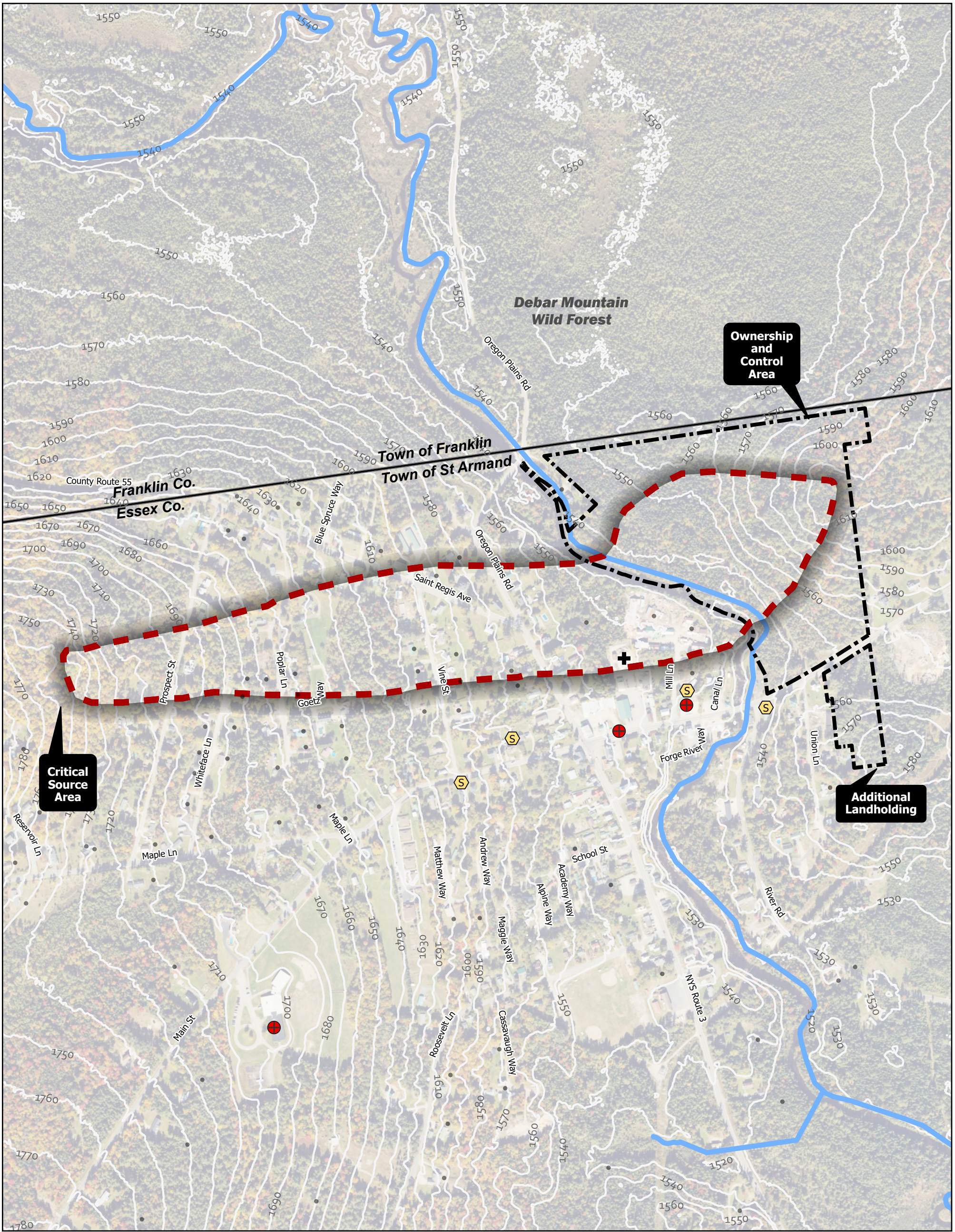
Name	Affiliation	Contact Information
		E-mail
Davina Winemiller	Supervisor/ Team Chair	davinastarmand@gmail.com
Marlene Martin	NYSDOH	Private
Donna Whitelaw	Town Board Member (Future)	Private
Megan Zack Stevenson	ADK Land Trust	Private

<b>Plan Management Summary</b>	
<b>Item</b>	<b>Status</b>
Designate a Plan Management Team	Complete
Determine progress report frequency 3 Months	Complete
Share progress reports	Complete
Review and share the plan	Complete
Verification from NYS DOH and DEC for completeness	Complete
Create a revision schedule	Complete

<b>Update/Revision Tracker</b>		
<b>Report</b>	<b>Date</b>	<b>Notes</b>
First report:		
Update/Revision 1		
Update/Revision 2		
Update/Revision 3		
Update/Revision 4		
Update/Revision 5		
Update/Revision 6		
Update/Revision 7		
Update/Revision 8		

**Appendix 2 –Maps**

1. Potential Contaminant Sources and Topography .....	2.1
2. Land Uses.....	2.2



- Legend:**
- Ownership and Control Area
  - Critical Source Area
  - Salt Storage/Mixing Area
  - Private Septic Systems
  - NYSDEC Spill Incidents
  - Underground Gas Tanks
  - Contour (10 ft)

**Map 1**

**Bloomingdale Water District Drinking Water Source Protection Areas, Potential Contaminant Sources, and Topography**

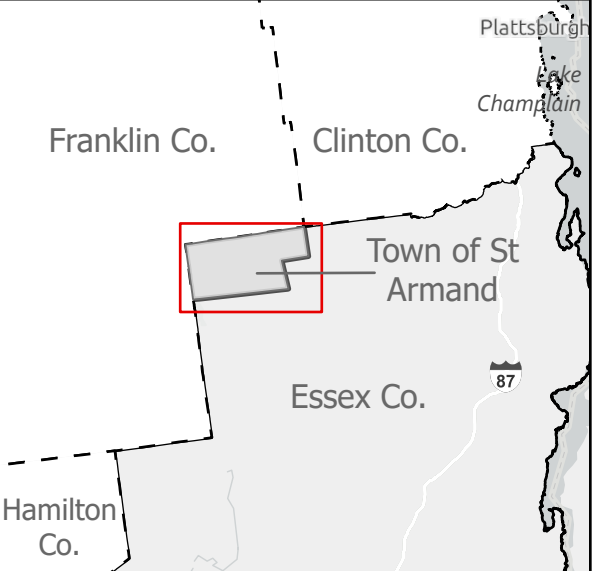
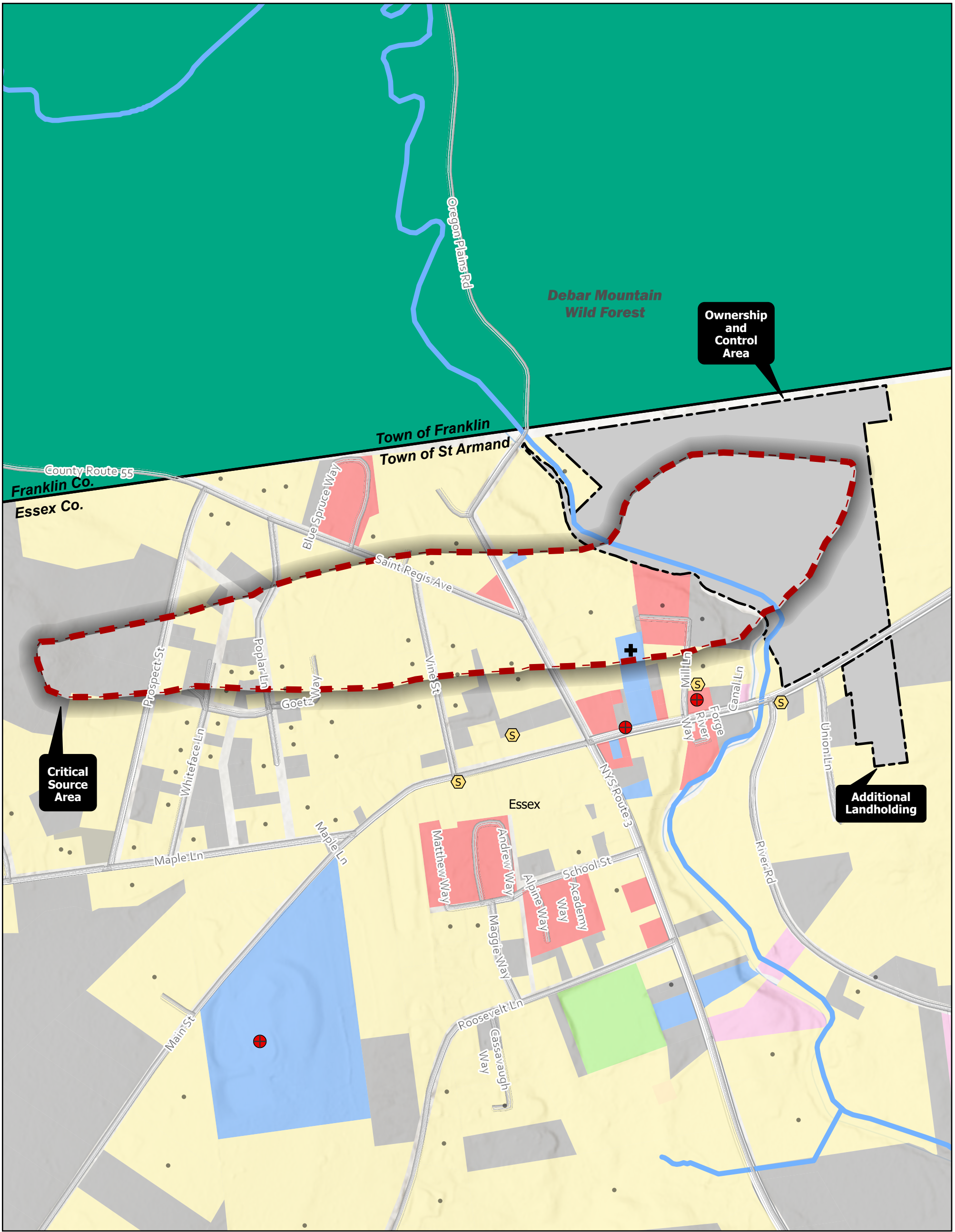
Town of St. Armand, Essex County, NY

Drawn:	STP
Date:	05/14/2026
Scale:	1:6,000
Project:	2223129.14
Figure:	2

Sources: NYS DEC; NYS GPO; NYS ORPTS; USGS; ESRI.

Map Size: 11 x 17

0 0.03 0.05 0.1 0.15 Miles



**Legend:**

- |                            |   |
|----------------------------|---|
| Ownership and Control Area | Commercial  |
| Critical Source Area       | Community Services                                  |
| Salt Storage/Mixing Area   | Public Services                                     |
| Private Septic Systems     | Recreation and Entertainment                        |
| NYSDEC Spill Incidents     | Residential   |
| Underground Gas Tanks      | Vacant  |
|                            | Wild, Forested, Conservation Lands and Public Parks |

**Map 2**

**Bloomingdale Water District Drinking Water Source Protection Areas, Land Uses**

Town of St. Armand, Essex County, NY

Drawn:	STP
Date:	05/14/2026
Scale:	1:6,000
Project:	2223129-14
Figure:	1

Sources: NYS DEC; NYS GPO; NYS ORPTS; USGS; ESRI.

Map Size: 11 x 17

0 0.03 0.05 0.1 0.15 Miles